

DESIGN GUIDELINES

A Guide for Maintaining and Rehabilitating Historic Buildings and Landscapes



HISTORIC PRESERVATION COMMISSION
Township of Hopewell, New Jersey

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SEPTEMBER 2005



HISTORIC PRESERVATION COMMISSION Township of Hopewell, New Jersey

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**GUIDELINES FOR
HISTORIC PROPERTIES**



Township of Hopewell Historic Preservation Commission

GUIDELINES FOR HISTORIC PROPERTIES



The stone portion of this building was the former Harbourton store, constructed in 1768. The former John Harbort residence, as represented by the furthest section to the east, has been used as a hat factory, tavern, and store that later housed the post office. The central section was constructed in the early nineteenth century, filling the gap between the two buildings. The unified building currently serves as a private residence.

These *Guidelines* were developed in conjunction with Hopewell Township's Historic Preservation Commission (HPC). The HPC reviews Certificate of Appropriateness (COA) applications for exterior alteration of a historic house, new construction within the context of historic buildings, or other property changes to properties locally designated as a Historic Landmark or within a local Historic District. The applicant is responsible for complying with the provisions of the Zoning and Building Codes at the time of application. The applicant must obtain a Certificate of Appropriateness (COA) as well as all necessary permits prior to proceeding with any work. For more information, or to obtain permit applications, please call the COA Administrator at (609) 737-0612, ext. 643.

Please review this information during the early stages of planning your project. Familiarity with this material can assist in moving a project quickly through the approval process, saving applicants both time and money. Additional *Guidelines* addressing other historic building topics are available at the Township Administration Building and on its web site at www.hopewelltpw.org.

WHY IS HISTORIC PRESERVATION IMPORTANT IN HOPEWELL TOWNSHIP?

Hopewell Township recognizes that the character and quality of life enjoyed by its citizens depends in great measure upon the Township's rich heritage. This historical, cultural, architectural, archeological, social and economic heritage is entrusted to each generation, enriched and passed on to future generations. To promote continued enrichment of local heritage, the Township enacted legislation in 2000 to identify and protect local historic resources (Ordinance #00-1142 [Section #17-241 of the Land Use and Development Ordinance]). In 2004 the Hopewell Township Historic Preservation Plan Element was also adopted as part of its updated Master Plan, which includes the following policy goals:

- *Safeguard the heritage of Hopewell Township by preserving the resources which reflect elements of its historical style*
- *Identify, designate, and regulate Historic Landmarks and Historic Districts in order to preserve their historical significance*
- *Encourage the continued use of Historic Landmarks and Historic Districts and to facilitate their appropriate reuse*
- *Maintain and develop an appropriate and harmonious setting for Historic Landmarks and Historic Districts within Hopewell Township*
- *Foster civic pride in the history and architecture of Hopewell Township*
- *Promote appreciation of Historic Landmarks and Historic Districts for the education, pleasure and welfare of the local population*
- *Encourage beautification and private reinvestment in Historic Landmarks, Historic Districts and surrounding properties*
- *Manage change of Historic Landmarks and Historic Districts by encouraging sensitive alteration and/or new construction*
- *Discourage the unnecessary demolition of historic resources*
- *Recognize the importance of Historic Landmarks and Historic Districts by urging property owners and tenants to maintain their properties in keeping with the requirements and standards of the Historic Preservation Commission ordinance*
- *Encourage the proper maintenance and preservation of historic settings and landscapes*

WHAT IS A HISTORIC RESOURCE?

A Historic District or Historic Landmark is an individual building, structure, site, object, or district that has been determined to have historical significance and whose distinctive character conveys a unique architectural and cultural heritage. Since the enactment of the State of New Jersey Municipal Land Use Law, Section 107 of Title 40:55D, many local municipalities, including Hopewell Township, have passed local ordinances to review the effect of proposed change on the historic resources in their communities.

While Historic Landmarks represent individual properties, Historic Districts are comprised of significant concentrations or linkages of historic resources, historically united by plan or development. Although all properties within Historic Districts are important to the sense of place, it is understood that some resources are more significant than others. Resources in Hopewell Township's Historic Districts are classified into three categories:

- **Key:** resources that would individually qualify for Historic Landmark status
- **Contributing:** resources that are integral components because they date from the same time period or are architecturally significant
- **Non-Contributing:** resources that are not historically or architecturally significant

WHAT ARE THE BENEFITS OF HISTORIC RESOURCES?

Although each property owner can define the benefits of a historic resource based upon his or her personal experience, historic resources have been found to:

- Increase neighborhood stability and property values
- Preserve the physical history of the area
- Promote an appreciation of the physical environment
- Foster community pride and self-image
- Increase the awareness and appreciation of local history and local tourism

WHY HAVE DESIGN GUIDELINES?

The brochures that comprise the *Design Guidelines* are intended to act as a tool to help manage change and protect Hopewell Township's architectural and historical resources. They are intended to provide information and guiding principles rather than seen as rigid rules to property owners, design professionals, contractors, the HPC and the Township with regard to historic resources.

It is recommended that applicants review the information in the *Design Guideline* brochures during the early stages of planning a project. Familiarity with this material can assist in moving a project forward quickly, saving applicants both time and money.

AVAILABLE GUIDELINES

The *Guidelines* addressing historic materials and building topics are available at the Township building and on its web site at www.hopewelltpw.org. The following *Guidelines* were prepared as part of this project:

- *Guidelines for Historic Properties*
- *Guidelines for Architectural Styles*
- *Guidelines for Exterior Maintenance*
- *Guidelines for Roofing*
- *Guidelines for Exterior Woodwork*
- *Guidelines for Masonry & Stucco*
- *Guidelines for Wood Windows & Doors*
- *Guidelines for Porches*
- *Guidelines for Historic Landscapes*
- *Guidelines for Additions & New Construction*

WHAT IS THE HPC?

The Historic Preservation Commission (HPC) is a public advisory body established in 2000. The HPC helps protect the architectural and cultural heritage within Hopewell Township. Among its responsibilities, the HPC considers the effects of proposed exterior changes to individual, locally designated Historic Landmarks, and to locally designated buildings and properties within Historic Districts, and comments on the appropriateness of those changes.

The five Members and two Alternate Members of the HPC are appointed by the Mayor with the consent of the Township Committee. Most members of the HPC are Township residents and serve without pay in overlapping terms. The professional membership of the HPC includes:

- A person with knowledge of building design, construction or architectural history
- A person with knowledge of local history
- Citizens with an interest in history, historic preservation, or a related field



The HPC works to promote continued local preservation efforts in an effort to maintain its historic historical, cultural, architectural, archaeological, economic and social heritage for future generations of Hopewell Township residents.

WHAT IS THE HPC'S ROLE?

The HPC conducts monthly meetings and has the power and duty to:

- Identify, record and maintain a survey of historic resources and make recommendations to the Township regarding the designation of Historic Landmarks and Districts to the Hopewell Township, New Jersey or National Registers of Historic Places
- Issue a Certificate of Appropriateness (COA) for the repair, erection, replacement, reconstruction, alteration, restoration, demolition, or razing of any building or structure in whole or in part within a locally designated Historic District or designated a Historic Landmark
- Develop applications, and the inclusion of Historic Landmarks and Historic Districts as related to capital improvement programs
- Promote the Township's continued historic preservation efforts through advisory, educational and informational functions

The HPC is also available to provide informal informational meetings with property owners who are considering a project that might require a Certificate of Appropriateness.

WHEN IS A COA REQUIRED?

In most instances, property owners or tenants will interact with the HPC when applying for a Certificate of Appropriateness (COA) for a proposed project. If work is proposed at a Historic Landmark or on any property within the bounds of a Historic District, the Township requires that an applicant obtain a COA. The types of projects reviewed by the HPC include:

- Change of the exterior appearance of any building, structure, site, object or improvement including additions, alteration, reconstruction, or replacement of materials
- Relocation or demolition of any building, structure, site, object or improvement
- Changes to fences, walls, garden structures

The HPC reviews the proposed changes to determine whether they are appropriate to the individual property and within the surrounding historic context in regard to the architectural style, general design, arrangement, location, and materials. Once the HPC determines that the proposed changes are appropriate, they will determine whether a COA should be issued for the proposed work.

It must be stressed, however, that the HPC review is required for some work that would not otherwise require a building permit. This includes the replacement of doors and windows.

It should also be noted that a COA is necessary but not sufficient for the granting of a building permit. Each project is also subject to Township review for compliance with zoning, building, and safety codes.

WHEN IS A COA NOT REQUIRED?

- The HPC does not review any interior changes, unless they affect the exterior appearance of the building, although building permits may be required for interior work.
- The HPC does not review paint colors when the proposed work is limited to re-painting.
- A COA is also not required for what in the Commission's opinion constitutes in-kind repair or replacement for "ordinary maintenance and repair." Property owners must demonstrate that their project constitutes "ordinary maintenance and repair" and will be requested to provide photographs, project descriptions and information regarding proposed materials to the COA Administrator for review.

COA APPLICATION REVIEW PROCESS

To have your Certificate of Appropriateness (COA) application reviewed by the HPC, it must be submitted with the appropriate materials to the Building and Construction Department at the Township Administration Building **by 4:30 p.m. 14 days prior to the HPC meeting at which the application is to be reviewed.** HPC meetings typically occur the third Tuesday of each month. Please call (609) 737-0612 ext. 643 to confirm the meeting dates. The HPC must have all required information to review an application for a COA. If all required information is not submitted the application may be recommended for denial or tabled until all the information is received.

It is recommended that the applicant or a project representative attend the HPC meeting to answer questions or clarify information. At the meeting, the application will be either approved with or without conditions, tabled pending additional information, or denied.

If the application is approved or approved with conditions by the HPC, and the applicant accepts the stipulated conditions, the applicant can obtain a COA from the COA Administrator at the Building and Construction Department within a week of the HPC meeting. If the HPC denies the application, the applicant can request to be placed on the agenda to appeal the recommendation at the next scheduled Zoning Board of Adjustment meeting. If the Zoning Board of Adjustment also denies the application, the decision can be appealed to the New Jersey Superior Court.

TIMING FOR REVIEW

The Township makes every effort to simultaneously conduct required reviews. If an application is incomplete, if the HPC requests a change, or if all Township deadlines are not met, the issuance of permits and approvals could take several months.

- **If the proposed work does not require a building permit:** A minimum of three weeks is required from the submission deadline of the COA application to the issuing of the COA decision
- **If the proposed work requires a building permit:** The Building and Construction Department will make every effort to review the submission for permits simultaneously with the HPC review schedule
- **If the proposed work requires a Zoning Variance:** The HPC's recommendation will be considered during the Zoning Board of Adjustment meeting

WORK COMPLETED WITHOUT A COA

A HPC representative will review all work for compliance with the approved COA. If any changes are proposed after approval for a COA, please contact the COA Administrator at (609) 737-0612 ext. 643 to determine whether any additional reviews may be required. Completed work that is not in compliance with the approved COA is subject to fines and possible removal.

GUIDELINES FOR HPC DECISIONS:

When reviewing a proposed project, the HPC review is guided by principles contained in *The Secretary of the Interior's Standards for the Treatment of Historic Properties*, and more specifically, the *Standards for Rehabilitation*. The *Standards for Rehabilitation* allow property owners and tenants common-sense guidelines to provide sensitive contemporary uses for their sites while retaining their architectural and cultural heritage.

In reviewing projects, the HPC encourages sensitive rehabilitation involving the least amount of intervention or change as identified in the following guidelines:

- **Identify, retain, and preserve** the overall form, materials, and details that are important in defining the architectural and historical character of the building and site.
- **Protect and maintain** historic materials and features. This involves protection from other work that may occur in proximity to the historic materials, and also protection through regular maintenance. A regular program of protection and maintenance usually involves the least degree of intervention, and can prevent or postpone extensive and costly work.
- **Repair rather than replace** deteriorated historic materials and features. Repairs maintain the building in its current condition while making it weather-resistant and structurally sound. Repairs should involve the least intervention possible, concentrating specifically on areas of deterioration. When repair is not possible, the HPC encourages replacement in-kind, reproducing by new construction the original feature exactly, including the original material, finish, detailing, and texture. Although not preferred, substitute materials are acceptable when they convey the original appearance and finish of the original feature.

- **Replace** missing or deteriorated historic materials and features when the extent of deterioration precludes repair. Similar to repair, the preferred approach is to replace the entire feature in-kind to match the original material, finish, detailing, and texture. Since this is not always technically or financially feasible, substitute materials are acceptable when they convey the original appearance and finish of the original feature.
- **Reconstruct** missing historical features if adequate historical, pictorial, and physical documentation exists so that the feature may be accurately reproduced. The addition of features from other historic buildings or addition of historical elements for which there is no documentation is not appropriate.
- **Alterations and additions** are sometimes needed to ensure the continued use of a building. An alteration involves returning a building to a useful condition while saving those parts that represent its historical, architectural or cultural significance. It is important that alterations do not radically alter, obscure or destroy character-defining spaces, materials, features, or finishes. An addition, however, is new construction at the exterior of an existing building and should be avoided. If considered, new additions should be clearly differentiated but compatible in size, mass, form, fenestration, detailing and style with the historic building, and constructed at a less visible side or rear elevation, so the character-defining features are not radically obscured, damaged, or destroyed.

THE SECRETARY OF THE INTERIOR'S STANDARDS FOR REHABILITATION

The following *Standards for Rehabilitation* were developed in 1995 by the National Park Service of the U.S. Department of the Interior. They are the national standard to guide rehabilitation work on historic resources and are used by Hopewell Township's HPC when rendering its recommendations.

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

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

Rehabilitation as a Treatment: When repair and replacement of deteriorated features are necessary; when alterations or additions to the property are planned for a new or continued use; and when its depiction at a particular period of time is not appropriate, Rehabilitation may be considered as a treatment. Prior to undertaking work, a documentation plan for Rehabilitation should be developed.



General maintenance is essential to preserving original building fabric and unique architectural elements and details.

MAINTENANCE IS PRESERVATION

General maintenance should be a regular part of any property, particularly historic buildings. Lack of regular upkeep, such as gutter cleaning and painting, can result in accelerated deterioration of building elements and features. In the case of historic buildings, these features may represent the character defining elements of the building that are difficult and costly to replace. Regular, smaller investments of money at a property to identify and correct potential problems may not only improve its overall appearance and value, but also can prevent or postpone extensive and costly future repairs.

The HPC encourages:

- Prolonging the life of original materials on historic structures through regular maintenance
- Avoiding replacement of original materials with newer materials
- Referencing the *Guidelines for Exterior Maintenance*

REPAIRS AND REPLACEMENT

When it is no longer feasible to maintain a historic feature, repairs or replacement in-kind may be necessary. Repairs maintain the building in its current condition while making it weather-resistant and structurally sound, concentrating specifically on areas of deterioration. When repair is not possible, the HPC encourages replacement in-kind. Similar to a regular maintenance program, these activities can prevent or postpone extensive and costly future repairs.

The HPC encourages:

- Non-intrusive repairs, focused at deteriorated areas, stabilizing and protecting the building's important materials and features
- When repair is not possible, replacement in-kind to the greatest extent possible, reproducing by new construction the original feature exactly, matching the original material, size, scale, finish, detailing, and texture, and utilizing similar techniques
- When replacement in-kind is not possible, the use of compatible materials and techniques that convey an appearance similar to the original feature, similar in design, color, texture, finish, and visual quality to the historic elements

ALTERATIONS AND RENOVATIONS

Alterations and renovations are sometimes needed to ensure the continued use of a building, but have the potential to alter the character of historic properties. When considering alterations or renovations, great care should be given to the original building and its relationship to the alteration or renovation.

The HPC encourages:

- Identification, retention, and preservation of the character defining features of the historic building
- Minimal alteration to the original design, materials, and features
- New design elements and scale that are compatible with the historic building and setting
- Use of materials and techniques that are compatible to the historic building and setting
- Maintaining the appropriate historic contextual setting

ADAPTIVE REUSE

In adaptive reuse projects, alterations or renovations might be necessary to use a building for a different purpose from which it is currently or was originally designed. Note that proposed new uses must be permitted by the Zoning Code. Similar to alterations or renovations, great care should be given to the original building and its relationship to the alteration or renovation.

Examples of Adaptive Reuse:

- Conversion of a house to apartments or offices
- Conversion of industrial or commercial buildings into housing
- Conversion of institutional buildings into commercial space

Benefits of Adaptive Reuse:

- Retention of historic district character and high quality historic materials and craftsmanship
- Promotes stability of ownership and occupancy of historic resources
- Potential cost savings over new construction
- Presence of established neighborhood and existing infrastructure



The former Woosamonsa Public School is now a meeting hall.

ADDITIONS AND NEW CONSTRUCTION

Additions and new construction on Historic Landmark properties and those within a Historic District can dramatically alter the appearance of the Landmark, District and the surrounding landscapes. Although the duplication of historic styles is not encouraged, contemporary design must be reviewed within the context of the historic resources and their surroundings. Because of the sensitivity of the area, the property owner should take great care when proposing either an addition or new construction to a Historic Landmark or within a Historic District.

The HPC encourages:

- Preservation of the cohesive ambiance of historic resources with compatible, sympathetic, and contemporary construction
- Compatible siting, proportion, scale, form, materials, fenestration, roof configuration, details, and finishes
- Construction of additions at secondary elevations wherever possible, subordinate to the historic building, and compatible with the design of the property and neighborhood
- Construction of additions so that the historic building fabric is not radically changed, obscured, damaged, or destroyed
- Referencing the *Guidelines for Additions & New Construction*

DEMOLITION OF HISTORIC RESOURCES

The demolition of all or portions of resources on Historic Landmark properties or within a Historic District is considered a drastic action since it alters the character of the streetscape, surrounding buildings, and the demolition site. Once resources or buildings that contribute to the heritage of the community are destroyed, they cannot be replaced. This could represent a lost educational resource for the community whether the building was an example of past construction techniques, or has associations with a significant individual or event in our history. As a result, demolition of a Historic Landmark or significant building within a Historic District is rarely considered to be an appropriate option.

The HPC encourages:

- An evaluation of the significance of the historic resources
- All attempts to reuse a historic resource be exhausted prior to considering demolition
- Referencing the *Guidelines for Additions & New Construction*

The HPC does not recommend demolition unless:

- The proposed demolition involves a non-significant addition or portion of the building, provided that the demolition will not adversely affect those portions of a resource that are significant
- The proposed demolition involves a non-significant resource, provided that the demolition will not adversely affect those parts of the site that are significant



St. Michael's Orphanage was located on Hopewell-Princeton Road. The Orphanage was opened in 1898, expanded in the early-20th century, and demolished in 1973. (This photograph was taken c. 1920.)

FREQUENTLY ASKED QUESTIONS

Q: How do I make sure that my project will be approved by the HPC?

A: It is helpful to have an understanding of what makes your property architecturally or culturally significant when considering a project. This will allow you to make informed decisions about the proposed project with an understanding of some of the issues considered by the HPC.

Q: Is the review process expensive? Do I need to hire an outside professional?

A: There is no fee associated with the review process, but proper preparation and filing complete applications on time can reduce the additional time required to complete the process. Carefully reviewing this brochure, the other applicable *Guidelines*, and the application package for the Certificate of Appropriateness prior to hiring a design professional or contractor can assist in the early planning stages of your project.

You are welcome to submit applications for work without the assistance of a design professional or contractor. If you are retaining the services of a professional, it is helpful to work with architects, contractors, etc. who are familiar with the requirements of working with Historic Landmarks and within Historic Districts. Before submitting your application, verify that the application is complete and all materials are included with your submission.

Q: I am planning a complex project. When is the best time to talk to the HPC?

A: The best time to talk to the HPC is early in the process before you invest a lot of time and money into the design process. If you would like to discuss your project informally with the HPC to obtain an informational review before finalizing your plans, please contact the Building and Construction Department at the Township Administration Building at (609) 737-0612 ext. 643.

Q: Is there a way to expedite the review process?

A: It is important to thoroughly complete the application and submit all requested materials to the Building and Construction Department at the Township Administration Building to be placed on the agenda for the following month's meeting. We suggest that you call the Building and Construction Department directly for the next month's submission deadline and meeting date.

Q: What information do I need to submit with my application?

A: The specific submission requirement will vary based upon the complexity of the proposed project. All applications should include:

- Completed application form
- Photographs of the overall building with details of proposed work area
- Description of the proposed work
- Drawings or sketches indicating the proposed changes
- Information regarding the proposed exterior materials

For specific information regarding the submission requirements for your proposed project please contact the Building and Construction Department at the Township Administration Building at (609) 737-0612 ext. 643. Completed applications must be submitted a minimum of two weeks prior to the upcoming HPC meeting to be placed on the agenda for a formal review. If the information is not complete, you can request to appear before the HPC in an informal informational review.

Q: Can I begin construction immediately after I get the HPC's approval?

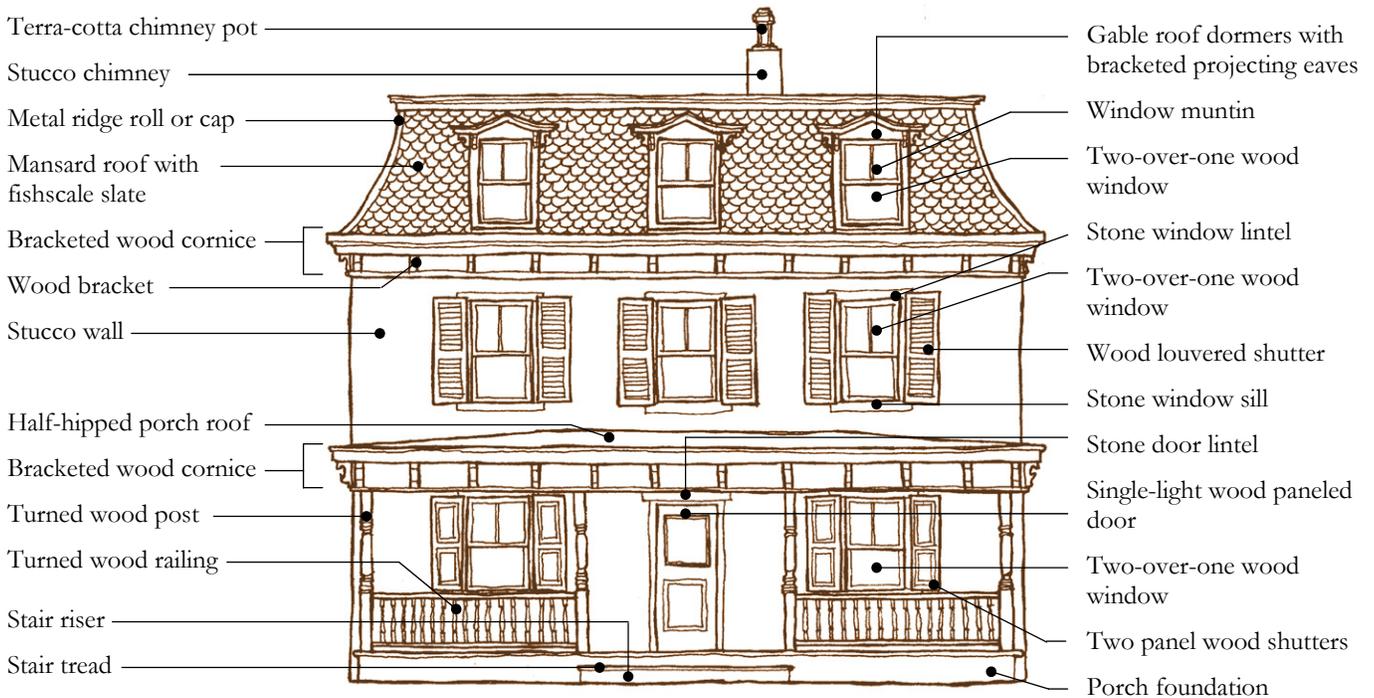
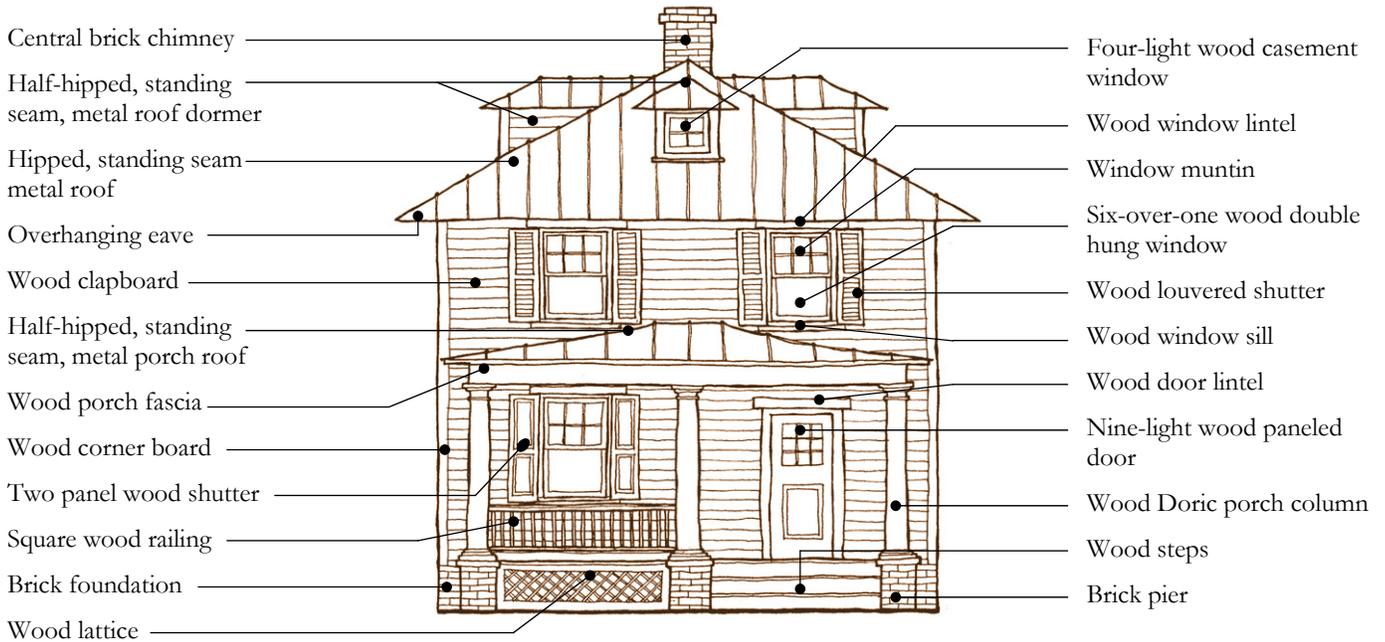
A: The HPC review is necessary but not sufficient for the granting of a building permit. Each project is also subject to Township review for compliance with zoning, building, and safety codes. You must obtain a Certificate of Appropriateness and all necessary permits before proceeding with any work. If the HPC recommends an application for approval and no other permits are required, it is possible to obtain an approved COA within one week following the HPC meeting. If the complexity of the project requires other permits or reviews, the Township will make every effort to perform simultaneous reviews and minimize any potential delays.

Q: Who can help me?

A: We encourage you to contact the HPC at the earliest stage of your project. This initial informal informational review can help move a project quickly through the review process saving both time and money. If you would like to discuss your project informally with the HPC to obtain feedback prior to finalizing your plans, please contact the Building and Construction Department at the Township Administration Building at (609) 737-0612 ext. 643.

GLOSSARY OF ARCHITECTURAL TERMS:

The following diagrams represent composite buildings and provide a basic vocabulary of architectural elements and terms. Please refer to the individual *Guidelines* and *Dictionaries* for additional information sources.



PRESERVATION ORGANIZATIONS

Local Organizations

Hopewell Township Historic Preservation Commission
www.hopewelltp.org

The Hopewell Valley Historical Society
(Located at the Hopewell Branch Library)
www.rootsweb.com/~njhvhs

Hopewell Branch Library
The Mercer County Library System
245 Pennington-Titusville Rd.; Pennington, NJ 08534
Phone: (609) 737-2610
www.mcl.org

The Historic County of Mercer
www.mercercounty.org/history/history.home1.htm

Mercer County History
www.rootsweb.com/~njmercer

State Organizations

New Jersey Historic Preservation Office
P.O. Box 404; Trenton, NJ 08625-0404
Phone: (609) 292-2023, 292-2028, 984-0140
Fax: (609) 984-0578
www.state.nj.us/dep/hpo

Preservation New Jersey
30 S. Warren Street; Trenton, NJ 08608
Phone: (609) 392-6409; Fax: (609) 392-6418
www.preservationnj.org

New Jersey Historic Trust
P.O. Box 457; Trenton, New Jersey 08625-0457
Phone: (609) 984-0473; Fax: (609) 984-7590
www.njht.org

The New Jersey Homepage of the American Local History Network – www.usgennet.org/usa/nj/state

National Organizations

National Park Service; Heritage Preservation Services, and the Historic Landscape Initiative
www2.cr.nps.gov/tps/tps_t.htm
www.cr.nps.gov/hps/hli

National Center for Preservation Technology & Training
645 University Parkway; Natchitoches, LA 71457
Phone: (318) 356-7444; Fax: (318) 356-9119
www.ncptt.nps.gov

National Trust for Historic Preservation
1785 Massachusetts Avenue, NW
Washington, DC 20036-2117
Phone: (800) 944-6847
www.nationaltrust.org

PRESERVATION RESOURCES

HOPEWELL TOWNSHIP HISTORY

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BUILDING & LANDSCAPE MAINTENANCE, REHABILITATION AND PRESERVATION

Several of the National Park Service publications are available electronically through the Heritage Preservation Services website or the US Government Printing Office Bookstore at www.bookstore.gpo.gov.

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www2.cr.nps.gov/tps/standguide/index.htm

PERIODICALS AND LINKS TO HISTORIC BUILDING & LANDSCAPE INFORMATION

APT Bulletin

Association for Preservation Technology International
4513 Lincoln Ave., Suite 213; Lisle, IL 60532-1290
Phone: (630) 968-6400; www.apti.org

Preservation and Preservation Forum

National Trust for Historic Preservation
1785 Massachusetts Ave., NW;
Washington, DC 20036
Phone: (800) 944-6847
www.nationaltrust.org

Old-House Journal, Old-House Journal's Restoration Directory, Old-House Journal's Traditional Products, Clem Labine's Traditional Building, and Preservation Sourcebook

Restore Media, LLC

1000 Potomac Street, NW; Suite 102
Washington, DC 20007; Phone: (202) 339-0744
www.oldhousejournal.com
www.traditionalbuilding.com

The Alliance for Historic Landscape Preservation
82 Wall Street, Suite 1005
New York, NY 10005
www.ahlp.org/docs/contact.htm

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The late 18th century Upper Bellemont Farm barn features a ramp to facilitate access to the upper level.

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Dominique M. Hawkins, AIA, of Preservation Design Partnership in Philadelphia, PA, prepared this publication.



**GUIDELINES FOR
ARCHITECTURAL STYLES**



Township of Hopewell Historic Preservation Commission

GUIDELINES FOR ARCHITECTURAL STYLES



The Jeremiah Van Dyke House is an early 18th century Dutch Colonial dwelling with a later wood framed addition.

PURPOSE

These *Guidelines* were prepared to assist property owners in understanding the historic character and special qualities of their property when considering the exterior alteration of a historic building, new construction within the context of historic buildings, or other property changes. They are not intended to replace consultation with qualified architects, contractors and the Historic Preservation Commission (HPC).

These *Guidelines* were developed in conjunction with Hopewell Township's Historic Preservation Commission (HPC). The HPC reviews Certificate of Appropriateness (COA) applications for proposed exterior alterations to properties locally designated as Historic Landmarks or within a local Historic District. The applicant is responsible for complying with the provisions of the Zoning and Building Codes at the time of application. The applicant must obtain a Certificate of Appropriateness (COA) as well as all necessary permits prior to proceeding with any work. For more information, or to obtain permit applications, please call the COA Administrator at (609) 737-0612, ext. 643.

Please review this information during the early stages of planning your project. Familiarity with this material can assist in moving a project quickly through the approval process, saving applicants both time and money. Additional *Guidelines* addressing other historic building topics are available at the Township Administration Building and on its web site at www.hopewelltpw.org.

UNDERSTANDING HOPEWELL TOWNSHIP'S ARCHITECTURAL STYLES

Because of Hopewell Township's development as principally an agricultural community, most of its buildings are utilitarian and vernacular. The term "vernacular" suggests they were based upon traditional or regional forms without being designed by an architect or similarly trained individual. As a result, many of the buildings are relatively simple with embellishments that are reflective of the period or popular styles of the day.

Styles can be difficult to define because of changes over time. As the prosperity of the residents flourished and a family's needs grew, buildings were commonly enlarged and houses updated to meet the tastes of residents. Some original buildings were subsumed into new construction or expanded and updated for current styles such as the adding of gingerbread brackets or turned posts to porches of an earlier period to make the house appear more "Victorian." As a result, many houses reflect multiple time periods and might not be easily categorized as reflecting a single or "pure" style.

It is hoped that the images depicting the variety of Hopewell Township's architectural styles and the lists of locally found features will help residents identify the character defining elements of Township buildings.



This Federal house on Scotch Road has brackets at the roof eave and turned wood posts on the left shed roof porch that were probably added as later embellishments.

HOPEWELL TOWNSHIP HISTORY

The settlement patterns and development of Hopewell Township greatly influenced the relationship between the landscape and buildings as well as the architectural styles prevalent in the area. The following historical information was extracted from the *2004 Hopewell Township Historic Preservation Plan*:

The in-migration of European settlers that began in the 1690s continued at a rapid rate through the first two decades of the eighteenth century. Virtually all who arrived during this period were farmers seeking agricultural lands no longer available in the region's older settlement areas. The settlement pattern that developed was one of dispersed farmsteads with individual settlers and their dependents living in relative isolation from their neighbors. The emergence of the dispersed settlement pattern – rather than the New England pattern of clusters of housing surrounded by farm fields – resulted from various factors, including the desire to live close to one's land and the absence of any substantial Indian threat. Hopewell Township's isolated farmsteads were linked by a network of primitive roads, many of which followed former Indian trail.

During the Colonial period, Hopewell Township remained as an agricultural region. It continued to be dominated by the dispersed settlement pattern that had characterized the previous three decades. Population growth, however, produced an increased demand for farmland. This eventually caused the large farms to be subdivided. These subdivisions produced a large number of farms of reduced size, while the movement onto marginal agricultural land involved a simple extension of the dispersed settlement pattern to areas that had previously been ignored.

This expansion of agriculture and population in conjunction with improved transportation facilities fostered the development of villages. Hopewell's villages were not planned, but evolved gradually. Hopewell's growing number of farmers required services such as processing facilities including gristmills for agricultural products, blacksmith and wheelwright shops for the manufacture and repair of farm equipment, and stores. Farmers and their families also had educational and religious needs which required the building of schools and churches. In addition, taverns and blacksmith and wheelwright shops provided important services for those traveling along Hopewell's growing network of roads. The present boroughs of Hopewell and Pennington both originated as settlements that provided these commercial, transportation, and community services during the Colonial period.

Life and landscape in Hopewell Township changed very little between the Revolutionary and Civil Wars. Hopewell Township remained essentially agricultural. Significant transportation developments were construction of the Delaware & Raritan Canal and Feeder, and the Belvidere-Delaware Railroad along the Township's western edge.

Hopewell's cultural facilities continued to develop along the lines established in earlier periods. The settlement pattern remained rural and was still dominated by scattered, isolated farmsteads. Population growth continued to stimulate a demand for more farmland. Villages continued to develop with both Columbia (Hopewell) and Pennington gradually expanding. Other smaller settlements such as Harbourton, Titusville, Mount Rose, Marshalls Corner, Woodsville, and Stoutsburg emerged as lesser centers of agricultural, transportation, and/or community services. There was also some industrial growth, but for the most part, "industry" was dominated by agricultural processing. Saw milling was an important new element, but it was relatively short-lived since by mid-century most of Hopewell Township's woodland was depleted. A later and more long standing development was the establishment of a number of extraction industries that exploited the Township's rock and mineral resources. By the time of the Civil War, stone quarries, mines, sand pits, and a brickyard had all appeared in the northern half of the Township.

Although Hopewell Township has retained much of its rural, agricultural character, substantial modifications began appearing during the late nineteenth century. The completion of the Delaware and Bound Brook Railroad (which was formally absorbed into the larger Philadelphia and Reading in 1879) provided the impetus for Hopewell Township's first wave of "suburban settlement" chiefly around the villages of Pennington and Hopewell. There was also some industrial expansion in both villages which fostered additional development and residential expansion. In 1890 and 1891, Pennington and Hopewell seceded from Hopewell Township and were established as independent boroughs. They attained their present configurations in 1915 through further annexations of additional land from the Township.

The Township experienced a brief period of more rapid population growth after World War I ended. Suburban development continued around both boroughs and in the Titusville-Washington Crossing area. The remainder of the Township retained its rural agricultural character. The Depression and World War II brought this period of growth to an end. The period between the World Wars also saw the expansion, straightening, widening and paving of roads. State funded construction of New Jersey Routes 29 and 69 (now 31) facilitated the first heavy traffic through the Township. The new roads in conjunction with the advances in automobile technology spurred the next, and still continuing, phase of population growth and new building construction.

DUTCH COLONIAL

Dutch Colonial homes tend to be one or one and one-half story residences with side gable or side gambrel roof forms. Dutch Colonial houses tended to be constructed in this area from the early 18th century into

the early 19th century. Many had “Dutch doors,” which were divided horizontally with the upper and lower halves operating on separate hinges.



Side gambrel roof form with minimal rake overhang

1½ stories in height

DUTCH COLONIAL

Local features:

- Early 18th – early 19th century
- 1-1½ stories in height
- Steeply pitched side gable roof
- Side gambrel roof after mid 18th century
- Possibly flared eaves after mid 18th century
- Little or no overhang at the gable or gambrel end
- Dutch doors
- Multi-paned double-hung windows

The c. 1740 Johnson Ferry House typifies Dutch Colonial style with its gambrel roof.



Rectangular transom window over door

12/12 double-hung windows

1½ stories in height, Flemish bond brick pattern

The c. 1765 Jeremiah Woolsey House has an I-shaped plan and combines both Dutch Colonial and later Colonial Revival features such as the dormer windows and later additions.

GEORGIAN AND FEDERAL

The Georgian style was regionally constructed from the early 18th century until the signing of the Declaration of Independence in 1776. The Georgian style was followed by the Federal style, also known as Adam

style, which is found throughout the area from the signing of the Declaration of Independence in 1776 through the early 19th century, and tends towards more elaborate detailing.



The Georgian style Colonel Joseph Stout House was constructed c. 1752, and shows development of organized window and door openings.

Side gable roof form with chimneys near gable ends and projecting cornice

Individual 6/6 double-hung window sash

Central wood entry at 5-bay façade

GEORGIAN

Local features:

- Early 18th century – 1776
- Simple clapboard or masonry exterior walls, often with symmetrical fenestration
- Paneled entrance doors often with detailed surrounds and rectangular transoms
- Multi-paned double-hung windows with small panes of glass and wide and shallow muntins
- Classically inspired interior detailing at high-style buildings



The c. 1785 Federal style Major Henry Phillips House is an example of the cow-and-calf building form.

Side gable roof with chimneys located near the gable ends

12/12 double-hung windows with paneled wood shutters at the first floor

Paneled wood entry door with rectangular transom

Georgian and Federal style buildings have similar characteristics including relatively simple clapboard or masonry walls; generally side gable roofs with projecting cornices; multi-light double-hung windows; and

ornamentation at entrances such as a paneled door with a transom window and possibly sidelights (windows flanking door openings.) The entrances at Federal style buildings tend to be more ornate than Georgian.



- Side gable roof form with chimneys near gable ends, projecting cornice, and gable roof dormer windows with 8/8 double hung windows
- Individual 12/8 double-hung window sash at the second floor and 12/12 double-hung windows at the first floor with paneled wood shutters
- Symmetrical 5-bay brick façade with a double belt course
- Central paneled wood entry door with rectangular transom and pedimented surround

The c. 1790 Federal style John Burroughs House, is constructed of brick with a double belt course.



FEDERAL

Local features:

- 1776 – early 19th century
- Simple clapboard or masonry exterior walls
- Elaborate entrance doors with paneled doors, detailed surrounds, transoms, fanlights and possibly sidelights
- Multi-paned double-hung windows with paneled shutters on the first floor and lowered shutters above
- Classically inspired interior detailing at high-style buildings

- Central paneled wood entry door with detailed surround

The early 19th century Levi Knowles House in Titusville is typical of this region and constructed of local stone.

GREEK REVIVAL

Greek Revival architecture was most common in the United States from the early to mid 19th century following the 1804 “discovery” of the Parthenon in Athens by Lord Elgin. The style was based upon classical Greek temples and was commonly used for residences as well as public and civic buildings. The overall form can vary from having a front gable roof, with the pediment facing forward, most common in this area) or a hipped or side gable roof with an entry porch featuring Classical detailing. Greek Revival buildings were constructed of masonry or clapboard and generally have a symmetrical principal façade with an entry porch featuring classical detailing.

Typical features include low-pitched gable or hipped roofs; pedimented gable ends; simple architrave bands at the eaves, entry porches with Doric style columns and horizontally spanning entablature; paneled front door with narrow sidelights and rectangular, semi-circular or elliptical fanlights; and multi-paned double or triple hung windows. Door and window surrounds tend to be fairly elaborate and might include Classical detailing. Tripartite window configurations, referring to a central window flanked by two smaller windows, might be present. Porches can be limited to the entry, extend across the full width of the façade, and be one or two stories in height.



Front gable roof, square cupola with pediment detailing

Pedimented, low slope front gable roof, cornice emphasized with wide band of trim

Tripartite window with classical detailing at wood surround

1 story entrance porch supported by un-fluted Doric columns with relatively plain capitals and an emphasized horizontal entablature

The c. 1835 Ichabod Leigh House typifies the Greek Revival style with its front pedimented gable roof and classical detailing surrounding the windows, with a later clapboard addition.



This later porch has Greek Revival detailing including the central porch with prominent, square Doric posts and emphasized entablature, as well as a paneled entry door with narrow sidelights and a transom window above.

GREEK REVIVAL

Local features:

- Early - mid 19th century
- Symmetrical façade
- Low-pitched roofs
- Columns and pilasters
- Pedimented gables
- 1 or 2 story entrance or full-width porches
- Paneled entrance doors with sidelights and transoms
- Multi-paned double or triple hung windows
- Tripartite windows
- Classical detailing

GOTHIC REVIVAL

Gothic Revival can be found in the region beginning in the mid 19th century and continuing through the 1870s. It was based upon Christian medieval architecture and was a common style for churches, colleges and rural architecture. Gothic Revival architecture tends to have a vertical emphasis and can feature steeply pitched roofs

possibly with cross gables and gable dormers; symmetrical façades (more common locally than asymmetrical massing); scrollwork at gable ends and porches; pointed arch, lancet, windows; and grouped windows.



Steeply pitched roof

Front façade is symmetrical and extends into gable without a visible break, such as a change in materials or detailing

Pointed arch lancet windows

The 1879 Harbourton Baptist Church reflects a Gothic Revival chapel style of Protestant architecture which was common in the years following the Civil War.



Pointed arched windows, also referred to as lancet windows, are a typical feature of Gothic Revival architecture. This example includes wood louvered shutters.

GOTHIC REVIVAL

Local features:

- Mid 19th century – 1880
- Steeply pitched gable roof
- Vertical emphasis
- Cross gables or gable roof dormers
- Scrollwork or decoration at gable ends and porches
- Pointed arch lancet windows
- Windows and walls extending into gables
- Grouped windows
- Residences with 1 story full width or entry porch with flattened arch detailing

ITALIANATE

The forms of many Italianate buildings, dominant from 1840-1880, can be similar to those of Gothic Revival style. Typical features include low pitched or flat roofs with heavily molded or bracketed overhanging eaves. Tall narrow double-hung windows are found in 1/1 or

2/2 configurations, in single, paired or tripartite groupings, often with arched or rounded heads with elaborate hoods. Porches tend to be single story of restrained design supported by square posts. Entrance doors are molded, single leaf or paired.



Flat roof with elaborate, overhanging bracketed eaves

2/2 tall, narrow, double-hung windows with elaborate hood molding at symmetrical façade

Restrained entry porch with square wood posts

Central paired entry doors

This Italianate residence has elaborate wood detailing particularly at the eaves and window frames.

ITALIANATE

Local features:

- 1840 – 1890
- Flat or low-pitched roofs
- 2-3 stories in height
- Overhanging eaves with brackets or highly molded cornices
- Symmetrical façade with a central entry
- Tall narrow windows, generally 1/1 or 2/2 double-hung, commonly with arched or rounded tops, often grouped
- Elaborate window hood moldings
- Restrained porch with square posts
- Heavily molded doorways with single or paired doors



Low-pitched, cross-gabled roof with finial and heavily molded cornices at overhanging eaves

Paired, tall, narrow double-hung windows at symmetrical façade

Restrained entry porch, paired square wood posts, arched lintels

The mid 19th century Burroughs Farmhouse is simpler in design and detailing, and possibly incorporates an earlier 18th century building.

SECOND EMPIRE

The Second Empire style was popular from 1860 to 1900 and is often similar in form and detailing to the Italianate style, with the exception of its Mansard, or dual pitched hipped roof. Many Mansard roofs were originally slate, and featured dormer windows, wide

overhanging eaves and decorative brackets. Double-hung windows can be found in single or paired configurations and tend to have 2/2 windows, often with hood moldings. Entrance doors are often glazed in either a single or paired configuration.



Concave Mansard roof with alternating bands of square and fishscale slates and overhanging, bracketed eaves

Bracketed, gable roof, dormer windows with arched 2/2 double-hung windows

Tall, narrow, paired double-hung windows with elaborate hood molding

Central entry door and shallow hipped roof porch at symmetrical façade

SECOND EMPIRE

Local features:

- 1860 – 1900
- Mansard roofs with dormers, often with patterned slate
- Bracketed cornices and overhanging eaves
- Symmetrical façade with a central entry
- Tall narrow windows, generally 2/2 double-hung, often paired
- Elaborate window hood moldings
- Restrained porch with square or turned posts
- Heavily molded doorways with single or paired doors, often glazed

The Mansard roof is a prominent feature of the c. 1870 Bidwell House in Titusville.



This Mansard roof at this double residence is straight rather than concave as in the Bidwell House above.

COLONIAL REVIVAL

Colonial Revival represents the most ubiquitous architectural style in the United States. Begun in the later 19th century, Colonial Revival architecture draws its inspiration from the study of Colonial-era buildings that remain popular today. In many instances, stylistic elements from various early examples are combined and

re-imagined at an exaggerated scale compared to 18th century examples. Typical features include a pronounced central entry door, often with porches, door hoods, transom, or side lights; and multi-paned, single or paired, double-hung windows.



Gambrel roof with overhanging eaves and rake boards has continuous shed roof dormer with paired 6/1 double-hung windows

6/1 double-hung windows with shutters

The full-width porch, now enclosed, is supported by classically inspired columns

Dutch Colonial Revival houses with a continuous shed dormer were popularized in the 1920s.



COLONIAL REVIVAL

Local features:

- 1880 – present
- 1-3 stories in height
- Colonial-era forms including gable, hipped, and gambrel roofs
- Accentuated central front entry door with decorated hood, porch, transom window, or sidelights
- Single or paired, multi-paned, double-hung windows
- Colonial-era materials including stone, brick, stucco and wood clapboard for the wall surfaces, slate or wood shingles for the roof (or synthetic alternatives)

Side gable slate roof with hipped roof dormers

Paired 6/6 windows

Central entry door with sidelights

This modest scale house features Colonial-era materials including brick walls and a slate roof.

FOURSQUARE

Foursquares are a Colonial Revival houses with a distinctive square footprint and pronounced hipped roof with overhanging eaves. Typically the floor plan includes a room at each corner with a central stair hall. More modest examples might pair the corner rooms for larger spaces. Foursquares were most popular from

1900 through 1930 and typically feature pyramidal hipped roofs with overhanging eaves and shed or hipped roof dormers; full-width or wrap-around porches; individual or grouped double-hung windows; and classically inspired trim



- ← Hipped, pyramidal roof with overhanging eaves and a hipped dormer with paired double-hung windows
- ← Double-hung windows with shutters
- ← Full-width, hipped roof porch supported by Doric columns
- ← Grouped double-hung windows
- ← Accentuated central entry with elaborate surround and sidelights

At 3 bays in width, this is an unusually large example of a Foursquare.



Most Foursquares are two bays wide such as this example. Most Foursquares have a full width porch rather than a pent roof, suggesting this house might have been modified.

FOURSQUARE

Local features:

- 1900 – 1930
- 1½ -2½ stories
- Hipped, pyramidal roof with gable or hipped dormers and overhanging eaves
- Full-width or wrap-around porch with classical detailing
- Grouped or individual double-hung windows
- Accentuated entry
- Classically inspired trim and detailing

NEOCLASSICAL

The Neoclassical style takes its inspiration from the ancient classical and earlier Greek and Roman Revival periods. It has similar gable or more rarely hipped roof forms and was popularized in the early 20th century, continuing with simplified detailing to the present. The most distinguishing characteristics of neoclassical design are the prominent classically inspired porch supported by columns; classically inspired cornice with

dentils or modillions; elaborate entrance doors inspired by Georgian, Adam or Greek Revival precedents; generally multi-paned, double-hung windows, in some instances grouped in tripartite or Palladian configurations, with occasional fanlights or round windows; and classically inspired trim and details such as a roof-line balustrade.



Side gable, slate roof with elaborate pronounced cornice featuring dentils and modillions and gable roof dormers with double-hung windows

Full-height classically inspired entry porch, with fanlight at pediment, supported by fluted columns at center of symmetrical facade

Single and grouped, multi-paned, double-hung windows

Elaborate entrance doors possibly with door hood, transom windows and sidelights

The overall form is typical of Colonial Revival architecture, but the porch and classical detailing distinguish this as a Neoclassical style residence.



This full-height, classically inspired entrance porch is typical of Neoclassical architecture.

NEOCLASSICAL

Local features:

- 1895 – 1950
- 1-2½ stories
- Gable or hipped roof forms
- Full-height classically inspired entry porch supported by columns, can feature a pediment
- Symmetrically balanced façade with central door
- Elaborate entrance doors possibly with transom windows and sidelights
- Single or grouped, multi-paned, double-hung windows
- Classical detailing

BUNGALOW

The word “Bungalow,” as used in the United States was borrowed from the 19th century British term for a small one-story house in India with an encircling veranda and tile or thatched roof. The North American examples date from 1890 to 1935 with later examples being influenced by the Arts and Crafts movement and popularized when they became available by mail order from Sears and Roebuck. Bungalows are characterized

by a low, broad form; materials expressive of their natural state to harmonize with the landscape; free-flowing floor plans with a central dominant fireplace; and a lack of applied ornament. Typical features include low-pitch gable, or less often hipped, roofs with full or partial-width porches, often recessed under the principal roof, and single and grouped multi-paned window sash.



Continuous shallow shed roof dormer with grouped multi-paned casement windows

Accentuated low-pitched gable roof with exposed rafters at overhanging eaves and a prominent chimney

Wood shingle walls and stone foundation with lack of applied detailing

Full-width, recessed porch supported by square piers extending to porch level or ground

Bungalows are not common in Hopewell Township; this example probably dates from the 1920s or 1930s.



Another unique feature of this house is the concrete shingle roofing.

BUNGALOW

Local features:

- 1890 -1935
- 1-1½ stories
- Low-pitched gable roof with exposed rafters at overhanging eaves and prominent chimney
- Full or partial-width porches supported by square posts or piers, often tapered, extending to porch level or ground
- Use of natural materials, typically with high craftsmanship
- Single or grouped multi-paned windows
- Simple detailing with lack of applied ornament

HOPEWELL TOWNSHIP'S HISTORIC SETTINGS – FARM COMPLEX

Hopewell Township's settlement pattern was one of dispersed farmsteads with individual settlers and farmers living in relative isolation from their neighbors, allowing individuals to live close to their land. Hopewell Township's traditional farms feature large expanses of fields with vistas of a building cluster that includes a main residential building surrounded by

deciduous trees, and nearby grouped farm-related buildings interspersed with deciduous trees. The use of specific buildings to house individual animals, such as chicken coops and sheep barns, or for dedicated crop storage, such as corn cribs, began in the 19th century and continues today.



Hopewell Living History Farm provides a view of farm life in 1900.



This farm complex includes older and more recent farm related buildings.

Grouped farm related buildings with scattered deciduous trees

Main residential building surrounded by deciduous trees

Building complex surrounded by fields providing long vistas and view sheds

FARM COMPLEX

Local features:

- *Main residential building surrounded by deciduous trees*
- *Grouped farm related buildings with scattered deciduous trees*
- *Farm buildings of specific functions, i.e. corn cribs, chicken coops, sheep pens, stables, etc.*
- *Building complex surrounded by fields providing long vistas and view sheds*

HOPEWELL TOWNSHIP'S HISTORIC SETTINGS – CROSSROADS VILLAGE

The improvement of transportation routes and agricultural and population expansion fostered early village evolution in Hopewell Township. Increased numbers of farmers and their families required services. These included processing facilities for agricultural products; blacksmith and wheelwright shops for farm equipment; stores; schools; and churches. Travelers

along Hopewell Township's growing road network also used taverns and blacksmith and wheelwright shops. Several of Hopewell Township's crossroad villages continue to thrive, however the taverns and stores have been adapted to residences and offices. Remaining communities include Titusville, Harbourton, Woodville, Marshalls Corner and Mount Rose.



Frame buildings, with later additions, are in proximity to roadway on relatively small sites with a mature deciduous tree canopy with parking and secondary structures located at the rear of main buildings

Adaptive reuse of buildings such as this former general store that is now used as an office

Mount Rose developed in the 19th century as a crossroads village community.



Harbourton includes a church, and the former store and tavern, since converted into a residence.

CROSSROADS VILLAGE

Local features:

- Buildings in close proximity to roadway
- Relatively small sites
- Usually frame buildings, typically principal core with later additions
- Adaptive reuse of buildings from other uses into residences
- Mature deciduous tree canopy
- Parking and secondary structures located at the rear of main buildings

DETERMINING A BUILDING'S STYLE

When trying to determine a building's style, it is helpful to know the original dates of construction and any major additions. If this information is not available, consider the major forms of the building such as the roof shape and composition of major volumes, and then consider the individual features such as the porches, windows, doors, etc. to try to identify the style. When trying to determine a building's style, it can be helpful to keep in mind:

- Style is not a function of building use - churches, courthouses, schools and residences can be of various styles
- Style is not a definitive function of period – multiple styles tend to overlap any given period, and although certain styles were most popular during a specific period, property owners often continued to build in that style, particularly in more rural settings
- Styles blend into each other where specific features from an earlier or different style will be incorporated into a building of an altogether different style to achieve a certain effect or design
- Many of Hopewell Township's historic buildings were stylistically simplified because they were constructed by homeowners or builders with limited budgets and knowledge of high styles and detailing
- Many of Hopewell Township's buildings evolved over a period of time and earlier houses could have been subsumed into larger buildings or decorated to appear more up to date and stylish
- Original elements could have been removed, replaced or modified so that they are no longer in keeping with the characteristics of the original style – such as the replacement of multi-paned windows with 1/1 windows at a Federal style building or the removal of porch brackets at an Italianate building

Some buildings defy any one style “label” and are difficult or impossible to classify. It is often the case that previous owners made choices or alterations based upon personal tastes, needs, economy or whimsy. It is more important to know what the most significant remaining features of a building are, and consider and protect those features when planning changes, than it is to categorize a building by a style label.

The HPC is available to provide assistance with identifying building styles. Residents are encouraged to reference individual *Guidelines* for architectural vocabulary related to each materials or feature and the *Guidelines for Historic Properties* for a list of architectural style books and architectural dictionaries.



The paired arched windows at the front gable of the former Marshalls Corner Schoolhouse suggest Italianate influences.



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Dominique M. Hawkins, AIA, of Preservation Design Partnership in Philadelphia, PA, prepared this publication.



GUIDELINES FOR EXTERIOR MAINTENANCE



Township of Hopewell Historic Preservation Commission

GUIDELINES FOR EXTERIOR MAINTENANCE



The wood base is in contact with the concrete foundation. Regular wood dampness can eventually lead to rot and deterioration.

PURPOSE

These *Guidelines* were prepared to assist property owners with information regarding exterior building maintenance to encourage the continued preservation of their property. They are not intended to replace consultation with qualified architects, contractors and the Historic Preservation Commission (HPC). The HPC is happy to provide consultation and assistance with materials, free of charge.

These *Guidelines* were developed in conjunction with Hopewell Township's Historic Preservation Commission (HPC). The HPC reviews Certificate of Appropriateness (COA) applications for proposed exterior alterations to properties locally designated as Historic Landmarks or within a local Historic District. The applicant is responsible for complying with the provisions of the Zoning and Building Codes at the time of application. The applicant must obtain a Certificate of Appropriateness (COA) as well as all necessary permits prior to proceeding with any work. For more information, or to obtain permit applications, please call the COA Administrator at (609) 737-0612, ext. 643.

Please review this information during the early stages of planning your project. Familiarity with this material can assist in moving a project quickly through the approval process, saving applicants both time and money. Additional *Guidelines* addressing other historic building topics are available at the Township Administration Building and on its web site at www.hopewelltp.org.

BUILDING MAINTENANCE

The historic architecture of Hopewell Township features a well-constructed housing stock of mid-eighteenth through mid-twentieth century buildings. Many of these homes continue to serve Township residents because they have been maintained by previous and present owners.

A home is typically a family's largest single investment. One of the best ways to help a property retain its value in the marketplace is to implement a regular and preventive maintenance schedule. Unlike the buyer of an automobile, a new homeowner is not provided with an operator's manual or warranty book outlining a recommended maintenance schedule. As a result, many homeowners do little or no regular maintenance or repair until a serious problem develops. When the problem is finally noticed, the associated repairs can be significantly more involved and costly to address.

The exterior envelope of a building is made up of the roof, walls, windows and doors. These components act together as a system to protect the interior from exterior environmental extremes. Some of the environmental influences affecting the exterior building envelope include:

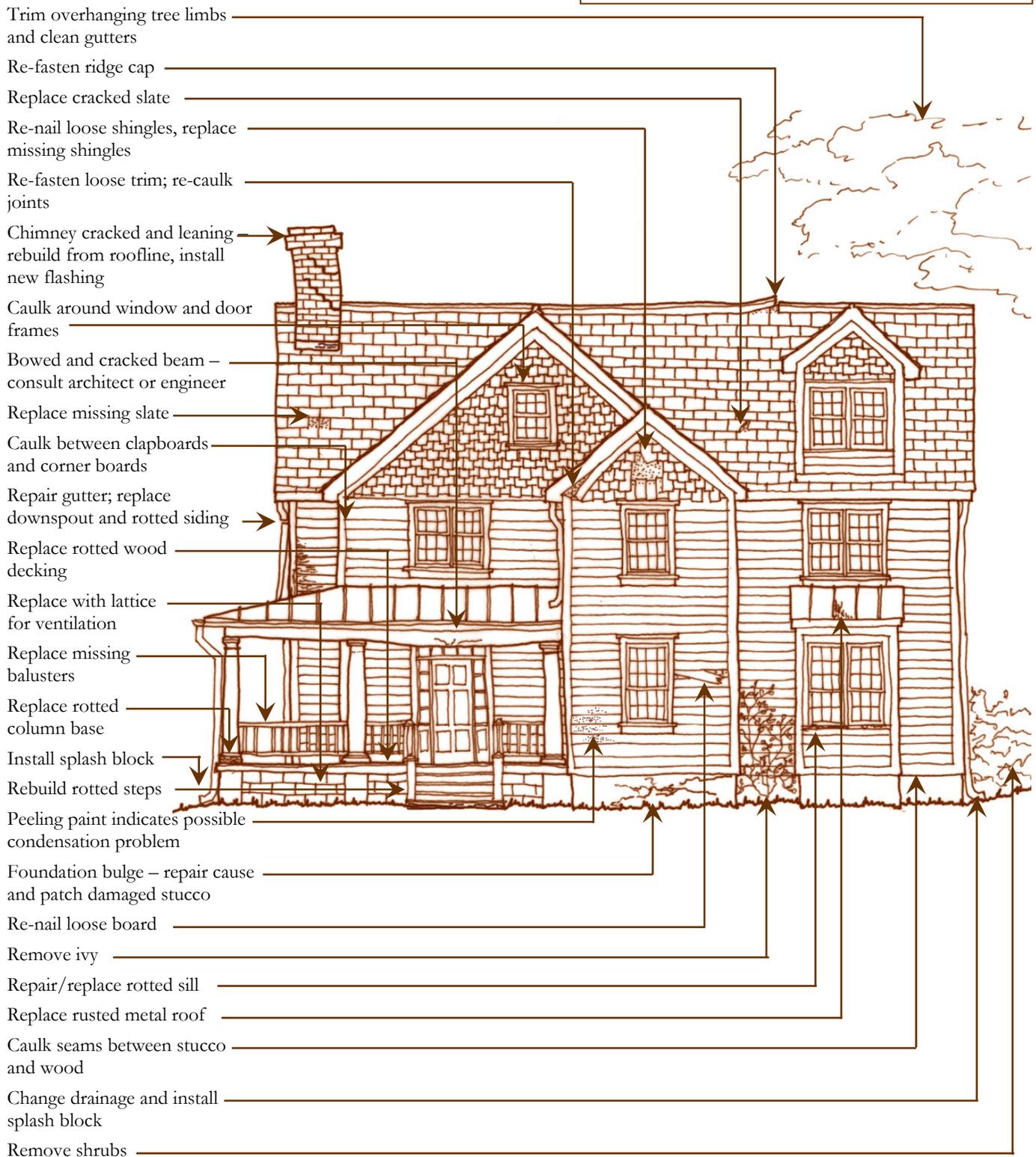
- Moisture, rain, snow, ice, humidity, groundwater
- Wind
- Sunlight
- Temperature variations
- Atmospheric chemicals and acid rain
- Insects, birds and rodents
- Vegetation, molds, algae and fungi

All building materials, new or old, will deteriorate over time. Each of the environmental influences listed above, individually and in combination, has the potential to react differently with the materials that compromise a building's exterior envelope and cause deterioration. The potential reactions are further complicated by the way the materials are installed and joined together. However, by implementing a regular maintenance and repair program, the rate of deterioration can be dramatically slowed, allowing the Township's historic buildings to last for centuries.

TYPICAL BUILDING MAINTENANCE NEEDS

General:

Scrape all loose paint; prime bare wood and metal; re-paint with historically appropriate colors





The regular cleaning of gutters and downspouts is one of the most effective preventive maintenance tasks. Clean gutters and downspouts provide a means for moisture that accumulates on the roof to be directed away from the building without causing damage. This gutter is filled with leaves, twigs and debris preventing clear drainage and allowing water to overflow the gutter and damage exterior wall surfaces. Gutters and downspouts should be cleaned at least twice each year to minimize potential problems.

MAINTENANCE IS PRESERVATION

Regular maintenance helps to preserve buildings and property, protect real estate values and investments, and keeps Hopewell Township an attractive place to live, work and visit.

Lack of regular upkeep can result in accelerated deterioration of building elements and features. Small openings or unpainted surfaces can allow moisture penetration and eventually rot. In the case of historic buildings, these features often represent character defining elements that are difficult and costly to replace. Long-term lack of maintenance can impact a building's structure, resulting in expensive repairs.

It is prudent for property owners to inspect their properties regularly to identify potential problems. If problems are detected early, smaller investments of money may not only improve a property's overall appearance and value, but also can prevent or postpone extensive and costly future repairs. Regular maintenance items typically include painting, and cleaning gutters and downspouts. It is also prudent to inspect the roof and any signs of moisture infiltration, open joints, and cracks or bulges.

The HPC encourages:

- Semi-annual reviews of buildings and structures to identify maintenance and repair needs
- Prolonging of the life of original materials on historic structures through regular maintenance
- Avoiding replacement of original materials with newer materials

REPAIRS AND REPLACEMENT

When it is no longer feasible to maintain a historic feature, repairs or replacement in-kind may be necessary. Repairs maintain the building in its current condition while making it weather-resistant and structurally sound, concentrating specifically on areas of deterioration. Similar to maintenance, repair costs and effort can be minimized if the problem is addressed quickly, preventing or postponing costly future repairs. As an example, it might be possible to repair an existing wood window rather than incur the much higher expense of replacement windows.

When repair is not possible, the HPC encourages replacement in-kind. Although it is tempting to install newer materials such as vinyl siding or replacement windows, many of these materials are not compatible with historic building systems and can lead to costly future repair needs or an ongoing replacement schedule. In the case of vinyl siding, it can trap moisture within a wall cavity and rot the structural framing.

The HPC encourages:

- Non-intrusive repairs, focused at deteriorated areas, stabilizing and protecting the building's important materials and features
- When repair is not possible, replacement in-kind to the greatest extent possible, reproducing by new construction the original feature exactly – using similar techniques to match the original material, size, scale, finish, detailing and texture
- When replacement in-kind is not possible, the use of compatible materials and techniques that convey an appearance similar to the original feature, similar in design, color, texture, finish, and visual quality to the historic elements

The HPC discourages:

- Introducing modern materials that can accelerate and hide deterioration
- Removing or encapsulating decorative building features such as brackets, spindles, cornices, columns, posts, etc.

HIRING A CONTRACTOR

- All contractors are not necessarily experienced in all materials or working with historic buildings
- Verify extents of warranty for materials and labor
- Check references, especially from 5 years prior, to understand how well their work has held up

SAFETY PRECAUTIONS

Repair and maintenance of a building can potentially be dangerous work. It is recommended that all manufacturers' recommendations be followed and appropriate safety precautions with ladders, tools, materials and processes be taken. Property owners should consult a professional for work that is unfamiliar or potentially unsafe.

Older buildings can have dangerous materials such as asbestos, lead, radon and mold that might be uncovered during work. Property owners should familiarize themselves with these materials and their building's conditions before beginning work. Information about common hazardous materials can be found by contacting the following organizations:

Asbestos

US Environmental Protection Agency Hotline:
(800) 368-5888

New Jersey Department of Environmental
Protection: (609) 984-6985
www.epa.gov/asbestos

Lead

National Lead Information Clearinghouse:
(800) 424-LEAD
www.epa.gov/lead

Radon

The National Safety Council's Radon Hotline:
(800) SOS-RADON
www.epa.gov/radon

New Jersey Department of Environmental
Protection Radon Section: (800) 648-0394

Mold

Indoor Air Quality Information Clearinghouse:
(800) 483-4318
www.epa.gov/iaq/molds/index.html

Information concerning asbestos and radon are also available though the New Jersey Department of Environmental Protection website at:

www.state.nj.us/dep

For additional questions or information, please contact Hopewell Township's Building and Construction Department at (609) 737-0605 for general questions, or your personal physician for health-related concerns.

BUILDING CODES

In the completion of construction projects, Hopewell Township refers to the *New Jersey Uniform Construction Code, NJUCC*, for non-residential buildings and the *International Residential Code, IRC*, for residential projects. The intent of the *Construction Codes* is to protect the public health, safety and welfare of citizens against the hazards of inadequate, defective or unsafe conditions. The *Construction Codes* address the interior and exterior conditions of buildings, building systems, and the surrounding property.

For specific information regarding the *New Jersey Uniform Construction Code*, and the *International Residential Code*, please contact the Building and Construction Department at (609) 737-0605.

DEMOLITION BY NEGLECT:

The destruction of a building or structure caused by the failure to perform maintenance over a long period of time.

PREVENTIVE MAINTENANCE CHECKLIST

The following pages include preventive maintenance checklists to assist property owners in recording the current condition of their building as well as keep track of maintenance tasks as they are performed. The checklists refer to typical problems associated with various materials and recommended actions. The checklist should be modified to address the specific materials found at each property. If a building has serious problems, a more detailed inspection can be performed by a qualified architect or engineer who can recommend an appropriate treatment approach.

It is recommended that homeowners conduct property reviews each spring and fall. The spring review will help identify work that should be completed during the warm weather months while the fall review will assist in the weatherization of a property before winter and the identification of projects to be scheduled for the following year. Areas of deterioration or problems should be photographed during each inspection. Dating of the photographs can help document an ongoing problem's progression and assist in planning future repairs.

For more specific information regarding the various materials identified, please refer to the *Guideline* brochures available at the Township's Building and Construction Department or on the Township web site at www.hopewelltp.org.



The mineral granules on the asphalt shingles have almost completely worn away. Portions of shingles have broken off and can be found in the gutters and on the ground. Prior patching is evident at the edge of the roof. The top of the roof curves down from the chimney, a possible indication of a structural problem.



Slates are cracked, dislodged and missing. Some of the surfaces are delaminating. Approximately 25 to 30 percent of the slates on this roof are either missing or damaged. Given the pervasiveness of the problems, considering roof replacement would be appropriate.

ROOFING AND RELATED ROOFING ELEMENTS CHECKLIST

As a general rule, roofing and the related elements should be reviewed every spring and fall, corresponding with the regular cleaning of leaves and debris from gutters and downspouts. In addition, it is best to review the gutters, downspouts and attic areas during a rainstorm to determine whether they are functioning properly. Flat roofs are best reviewed immediately following a rainfall to determine whether standing water or ponding is present. Great care should be taken when reviewing or maintaining roofs since they are potentially dangerous, particularly when wet.

If there are questions regarding whether the severity of deterioration warrants replacement of an element, consultation with a professional is recommended. It is usually less costly to fix a small problem than to delay action resulting in more extensive deterioration and repair needs. For further information, please refer to the *Guidelines for Roofing*.

MATERIAL / LIFE SPAN	INSPECTION REVIEW	RECOMMENDED ACTION
Slate, Terra Cotta and Cement Tile 50+ years	<ul style="list-style-type: none"> Laid on open sheathing or batten strips – verify from attic 	<input type="checkbox"/> If not, provide proper ventilation in attic
	<ul style="list-style-type: none"> Broken or missing slates or tiles Units delaminating or flaking apart Slate or tile particles in valleys, gutters and the base of downspouts 	<input type="checkbox"/> Re-attach, re-secure or replace loose or missing units in kind <input type="checkbox"/> Replace deteriorated individual units in-kind <input type="checkbox"/> Consider roof replacement when over 20% of units are split, cracked, missing or deteriorated
Asphalt Shingles 20+ years	<ul style="list-style-type: none"> Mineral granules in gutters and at the base of downspouts Mineral granules almost totally worn off single surface Edges of shingles look worn 	<input type="checkbox"/> Replace deteriorated individual units in-kind <input type="checkbox"/> Consider roof replacement when over 20% of units are split, cracked, missing or deteriorated
	<ul style="list-style-type: none"> Nails popping up Moss or mold forming on roof surface 	<input type="checkbox"/> Re-fasten or replace affected nails <input type="checkbox"/> Clean and treat surface to inhibit future growth <input type="checkbox"/> Trim back overhanging tree limbs to allow sun to hit roof surface

MATERIAL / LIFE SPAN	INSPECTION REVIEW	RECOMMENDED ACTION
Metal Roofs 60+ years	<ul style="list-style-type: none"> • Substantial number of rust or corrosion spots • Signs of previous tar patch jobs <ul style="list-style-type: none"> • Punctures in the metal • Broken joints or seams <ul style="list-style-type: none"> • Spring in surface of flat metal roof • Ponding or standing water on surface 	<ul style="list-style-type: none"> <input type="checkbox"/> Tin, terne coated steel and terne coated stainless all need regular repair and painting every 5-10 years and can last indefinitely if properly maintained <input type="checkbox"/> Attempt patching with compatible materials if area of deterioration is isolated <input type="checkbox"/> Consider roof replacement if deterioration is substantial or prevalent <ul style="list-style-type: none"> <input type="checkbox"/> Attempt patching or re-soldering with compatible materials if area is isolated <input type="checkbox"/> Consider roof replacement if deterioration is substantial or prevalent – verify condition of roof substrate <ul style="list-style-type: none"> <input type="checkbox"/> Consider roof replacement if deterioration is substantial or prevalent
Wood Shingles or Shakes 30+ years	<ul style="list-style-type: none"> • Laid on open sheathing or batten strips – verify from attic <ul style="list-style-type: none"> • Moss or mold forming on roof surface <ul style="list-style-type: none"> • Cupping or warping of wood • Individual shingles or shakes are split or uniformly thin from erosion 	<ul style="list-style-type: none"> <input type="checkbox"/> If not, provide proper ventilation in attic <input type="checkbox"/> Clean and treat surface to inhibit future growth <input type="checkbox"/> Trim back overhanging tree limbs to allow direct sunlight onto roof surface <ul style="list-style-type: none"> <input type="checkbox"/> Replace deteriorated shingles or shake in-kind <input type="checkbox"/> Consider roof replacement if deterioration is substantial or prevalent
Flat Roofs	<ul style="list-style-type: none"> • Bubbles, separation or cracking of the asphalt or roofing felt • Roof feels loose or squishy underfoot • Water ponding on roof • Mineral graduals or gravel worn away • Roofing felt looks dry or cracked 	<ul style="list-style-type: none"> <input type="checkbox"/> Attempt patching of seams with compatible materials if area is isolated <input type="checkbox"/> Consider roof replacement if deterioration is substantial or leaking is observed – verify condition of roof substrate
Flashing (Formed sheet metal at joints or intersections to prevent moisture penetration)	<ul style="list-style-type: none"> • Loose, corroded, broken or missing flashing • Roofing cement or tar on flashing • Un-caulked openings or gaps at the tops of flashing • Vertical joint does not have both base and counter flashing 	<ul style="list-style-type: none"> <input type="checkbox"/> Attempt patching with compatible materials if area of deterioration is isolated <input type="checkbox"/> Consider roof replacement if deterioration is substantial
Roof Projections (Dormers, vent pipes, cupolas, TV antennae, lightning rods, weathervanes)	<ul style="list-style-type: none"> • Connections around roof projects are not properly flashed and watertight 	<ul style="list-style-type: none"> <input type="checkbox"/> Attempt patching with compatible materials if area of deterioration is isolated <input type="checkbox"/> Consider flashing replacement if deterioration is substantial

MATERIAL / LIFE SPAN	INSPECTION REVIEW	RECOMMENDED ACTION
Chimneys	<ul style="list-style-type: none"> • Flashing around chimney is not watertight • Mortar joints in chimney badly weathered • Masonry or stucco coating is cracked or crumbling • Chimney is leaning 	<ul style="list-style-type: none"> <input type="checkbox"/> Attempt patching with compatible materials if area of deterioration is isolated <input type="checkbox"/> Re-point deteriorated or open mortar joints <input type="checkbox"/> Consider replacement if deterioration is substantial – replacement might necessitate chimney rebuilding from the roof surface up, attempt to replicate all chimney detailing in reconstruction
	<ul style="list-style-type: none"> • Chimney is not properly capped • Chimney is not properly lined 	<ul style="list-style-type: none"> <input type="checkbox"/> Install an appropriate chimney cap for the building style <input type="checkbox"/> Install a chimney liner if wood-burning fireplaces are used or if masonry inside of flue is crumbling
Gutters and Downspouts	<ul style="list-style-type: none"> • Clogged gutters or downspouts 	<ul style="list-style-type: none"> <input type="checkbox"/> Review roof drainage during a rainstorm – water should collect in gutters and flow through downspouts without “spilling over” roof edge <input type="checkbox"/> Clean out debris at least twice each year, in the spring and fall, or more based upon accumulation <input type="checkbox"/> Install metal screens over length of gutters and/or strainers over downspout locations
	<ul style="list-style-type: none"> • Rusty, loose, askew or tilting gutters or downspouts • Open or missing seams in hanging gutters 	<ul style="list-style-type: none"> <input type="checkbox"/> Attempt repair or patching with compatible materials if area of deterioration is isolated <input type="checkbox"/> Consider gutter or downspout replacement if deterioration is substantial
	<ul style="list-style-type: none"> • Broken seams in metal lining of built-in box gutter 	<ul style="list-style-type: none"> <input type="checkbox"/> Re-solder open joints <input type="checkbox"/> Consider gutter and downspout replacement if deterioration is substantial
	<ul style="list-style-type: none"> • Water ponding adjacent to foundation 	<ul style="list-style-type: none"> <input type="checkbox"/> Verify water from exiting downspouts is directed away from building foundation – install splash blocks or downspout extensions at base of downspouts <input type="checkbox"/> Re-grade area at foundation to direct ground water away from building
Attic Space	<ul style="list-style-type: none"> • Water stains on rafters or roof boards – probably indicated by either a dark patch on the wood or plaster or possibly a white bloom representing salt crystallization 	<ul style="list-style-type: none"> <input type="checkbox"/> Review during or immediately following a rainstorm to understand whether staining is a current or past problem – pay particular attention to flashing locations around roof penetrations such as vent pipes, chimneys and dormer windows as well as at valleys and eaves
	<ul style="list-style-type: none"> • Mildew on underside of roof structure 	<ul style="list-style-type: none"> <input type="checkbox"/> Verify whether the attic is sufficiently ventilated
	<ul style="list-style-type: none"> • Broken or missing collar beams • Cracked or sagging rafters 	<ul style="list-style-type: none"> <input type="checkbox"/> Potential structural problem – consultation with an architect or structural engineer is recommended, particularly if condition worsens

EXTERIOR WOODWORK CHECKLIST

As a general rule, exterior woodwork should be reviewed every spring and fall. The spring review will alert a property owner to damage that occurred over the winter months and allow for immediate repair. The fall review allows a property to be weatherized for winter and allows planning for spring repair and painting.

If there are questions regarding whether the severity of deterioration warrants replacement of an element, consultation with a professional is recommended. For further information, please refer to the *Guidelines for Exterior Woodwork* and *Guidelines for Windows & Doors*.



The siding staining is an indication of mold or algae growth. The shrubs should be removed or thinned to increase ventilation and allow sunlight to strike the wall. The siding is located only 2 to 3 inches above grade making it susceptible to water damage.

MATERIAL	INSPECTION REVIEW	RECOMMENDED ACTION
Exterior Walls – General	<ul style="list-style-type: none"> • Exterior walls not plumb or vertically straight • Bulges visible at exterior walls • Doors and window frames out-of-square • Siding undulates 	<ul style="list-style-type: none"> <input type="checkbox"/> Can indicate differential or uneven foundation settlement or severe structural problems – consultation with an architect or structural engineer is recommended, particularly if condition worsens
Wood Siding, Shingles and Decorative Woodwork	<ul style="list-style-type: none"> • Loose, cracked, missing or open joints at wood siding, shingles or decorative woodwork 	<ul style="list-style-type: none"> <input type="checkbox"/> Could lead to water infiltration and rot – repair or replace in-kind as appropriate <input type="checkbox"/> Apply caulk to open joints – verify compatibility with adjacent materials
	<ul style="list-style-type: none"> • Thin or worn shingles 	<ul style="list-style-type: none"> <input type="checkbox"/> Attempt patching with compatible materials if area of deterioration is isolated <input type="checkbox"/> Consider replacement in-kind if deterioration is substantial or prevalent
	<ul style="list-style-type: none"> • Open joints around window and door frames • Open joints between dissimilar materials (such as wood siding and porch roof) 	<ul style="list-style-type: none"> <input type="checkbox"/> Re-caulk, repair or replace deteriorated flashing as appropriate – verify compatibility of caulk with adjacent materials
	<ul style="list-style-type: none"> • Mold or mildew on siding or trim, especially on north side or shady areas 	<ul style="list-style-type: none"> <input type="checkbox"/> Indication of potential moisture problem – verify installation of sufficient vapor barrier in wall <input type="checkbox"/> Clean and treat surface to inhibit future growth – do not clean with high pressure water since this could result in more significant problems <input type="checkbox"/> Trim back shrubs and overhanging tree limbs to allow air circulation and sun to hit surface
	<ul style="list-style-type: none"> • Original siding or trim has been covered with vinyl or aluminum siding 	<ul style="list-style-type: none"> <input type="checkbox"/> Vinyl and aluminum siding and capping can trap moisture and hide rot and damage – if possible, vinyl or aluminum siding and capping should be removed and woodwork repaired

MATERIAL	INSPECTION REVIEW	RECOMMENDED ACTION
Water and Termite Damage	<ul style="list-style-type: none"> • Signs of dirt veins on exterior walls, particularly near foundation, steps, under porches, etc. 	<ul style="list-style-type: none"> ☐ Possible indication of termite damage, contact extermination company to determine if active infestation and extent of damage
	<ul style="list-style-type: none"> • Wood is soft when stuck with a small blade or ice pick, particularly window sills, porches, steps, sills and siding (Refer to <i>Guidelines for Exterior Woodwork</i> for wood rot test) 	<ul style="list-style-type: none"> ☐ Possible indication of wood rot or insect infestation – eliminate source of moisture to control rot and replace defective elements in-kind, contact an extermination company for potential infestation
	<ul style="list-style-type: none"> • Wood is located within 6 inches of ground 	<ul style="list-style-type: none"> ☐ Wood close to the ground can be a target for rot and termite infestation – review appropriate alternatives and conduct regular inspections
	<ul style="list-style-type: none"> • Vegetation, such as shrubs, are located immediately adjacent to foundation 	<ul style="list-style-type: none"> ☐ Vegetation can trap moisture in woodwork by blocking sunlight and air circulation – remove or thin vegetation close to a building or conduct regular inspections for rot behind vegetation
Windows and Doors (Refer to <i>Guidelines for Windows and Doors</i> for more information)	<ul style="list-style-type: none"> • Windows and doors do not fit or operate properly 	<ul style="list-style-type: none"> ☐ Verify whether frame is wracked or out-of-square – possibly an indication of differential or uneven foundation settlement ☐ Verify whether windows are painted shut and hardware (including sash cord or chains) is operational
	<ul style="list-style-type: none"> • Wood rot, particularly at sills and lower rails 	<ul style="list-style-type: none"> ☐ Repair or selectively replace deteriorated components in-kind ☐ Following repairs, verify deteriorated areas are well painted and joints caulked
	<ul style="list-style-type: none"> • Weather stripping is deteriorated or missing 	<ul style="list-style-type: none"> ☐ Replace with compatible weather stripping – weather stripping is typically located between the door and window and the frame as well as at the meeting rail (where the upper and lower sash abut) of windows
	<ul style="list-style-type: none"> • Glass is cracked 	<ul style="list-style-type: none"> ☐ Replace glazing to match existing
	<ul style="list-style-type: none"> • Glazing putty is missing, cracked or deteriorated 	<ul style="list-style-type: none"> ☐ Replace glazing putty – verify compatibility with adjacent materials
	<ul style="list-style-type: none"> • Storm or screen windows or doors are missing, deteriorated or non-operational 	<ul style="list-style-type: none"> ☐ Repair deteriorated units as appropriate ☐ Consider installing interior storm windows in lieu of exterior – interior storms can minimize potential condensation between the storm and window, reduce drafts, are virtually invisible, and make the exterior more attractive
Painting	<ul style="list-style-type: none"> • Chalky or dull finish 	<ul style="list-style-type: none"> ☐ Surface cleaning might be all that is needed ☐ If repainting, additional preparation might be required
	<ul style="list-style-type: none"> • Paint surface worn 	<ul style="list-style-type: none"> ☐ Wood generally needs repainting every 5 to 8 years
	<ul style="list-style-type: none"> • Peeling, curling and blistering 	<ul style="list-style-type: none"> ☐ Possible indication of a moisture problem – review drainage, potential leaks and whether there is a vapor barrier in the wall ☐ Paint failures near roofs, downspouts and porch ceilings are often the result of drainage problems

EXTERIOR MASONRY AND STUCCO CHECKLIST

Almost all houses include some masonry, if not as a building wall material, then as a foundation or chimney. Since masonry is often used as part of the structural system for older buildings, it is critical that it be maintained to prevent serious problems. For the best results, it is recommended that all masonry and stucco repairs and cleaning be conducted between mid-April and mid-November to minimize potential spalling and problems associated with colder temperatures.

If there are questions regarding whether the severity of deterioration warrants replacement of an element, consultation with a professional is recommended. It is usually less costly to fix a small problem than to delay action resulting in more extensive deterioration and repair needs. For further information, please refer to the *Guidelines for Masonry & Stucco*.

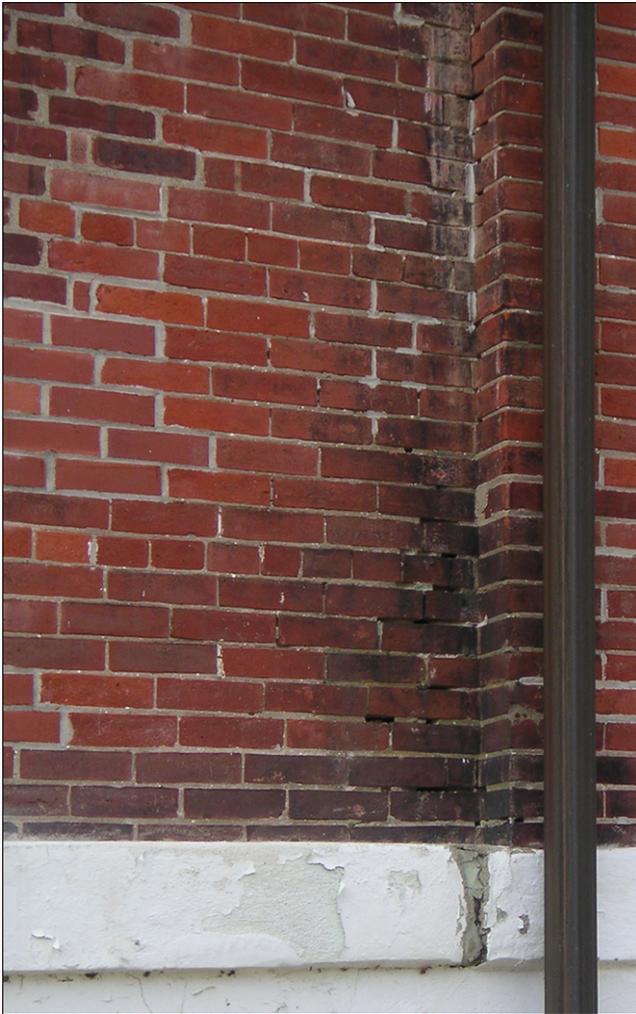
MATERIAL	INSPECTION REVIEW	RECOMMENDED ACTION
Exterior Walls – General	<ul style="list-style-type: none"> • Cracks in masonry wall 	<ul style="list-style-type: none"> <input type="checkbox"/> Can indicate differential or uneven foundation settlement or severe structural problems – consultation with an architect or structural engineer is recommended, particularly if condition worsens <input type="checkbox"/> Vertical or diagonal cracks or cracks that split individual bricks or stones tend to represent a more significant problem such as differential settlement <input type="checkbox"/> Horizontal cracks or hairline cracks limited to mortar joints or individual stones or bricks tend to be less severe <input type="checkbox"/> Monitor and photograph condition after repair during each inspection to see if cracks return
	<ul style="list-style-type: none"> • Bows or bulges in wall plane • Leaning walls 	<ul style="list-style-type: none"> <input type="checkbox"/> Can indicate differential or uneven foundation settlement or severe structural problems – consultation with an architect or structural engineer is recommended, particularly if condition worsens
	<ul style="list-style-type: none"> • Water ponding adjacent to foundation • Vegetation, such as shrubs, are located immediately adjacent to foundation • Damp walls • Moss or algae on masonry surface 	<ul style="list-style-type: none"> <input type="checkbox"/> Verify water from exiting downspout is directed away from building foundation – install splash blocks or downspout extensions at base of downspouts <input type="checkbox"/> Vegetation can trap moisture in masonry by blocking sunlight and air circulation – remove or thin vegetation close to a building or conduct regular inspections for algae and mold behind vegetation <input type="checkbox"/> Re-grade area at foundation to direct ground water away from building <input type="checkbox"/> Clean moss or algae from wall surface with low pressure water, with the possible use of gentle detergent and brushing
	<ul style="list-style-type: none"> • Efflorescence – water-soluble salts leached out of masonry and deposited on a surface by evaporation, usually as a white, powdery surface 	<ul style="list-style-type: none"> <input type="checkbox"/> Clean efflorescence from wall surface with low pressure water, with the possible use of gentle detergent and natural bristle brush <input type="checkbox"/> Review area for possible additional sources of moisture
Mortar	<ul style="list-style-type: none"> • Soft and crumbling • Open joints or broken joint bonds 	<ul style="list-style-type: none"> <input type="checkbox"/> Attempt patching with compatible mortar if area of deterioration is isolated – mortar should match original in appearance, profile, hardness and composition <input type="checkbox"/> Consider replacement if deterioration is substantial

MATERIAL	INSPECTION REVIEW	RECOMMENDED ACTION
Stones and Bricks	<ul style="list-style-type: none"> • Spalling, chipping, flaking, cracking or crumbling of surface • Loose or missing stones or bricks <ul style="list-style-type: none"> • Pitted surface from sandblasting or pressure wash 	<ul style="list-style-type: none"> <input type="checkbox"/> Attempt patching with compatible materials if area of deterioration is isolated <input type="checkbox"/> Consider replacement if deterioration is substantial <input type="checkbox"/> Masonry with a damaged surface is more likely to absorb moisture leading to accelerated deterioration – consult a professional and consider appropriate water repellent coating <input type="checkbox"/> Monitor and photograph condition to see if it continues to deteriorate <input type="checkbox"/> Review adjacent materials and interior finishes for signs of moisture infiltration and rot
Stucco	<ul style="list-style-type: none"> • Cracks in surface <ul style="list-style-type: none"> • Bulges in wall 	<ul style="list-style-type: none"> <input type="checkbox"/> Attempt patching with compatible stucco if area of deterioration is isolated <input type="checkbox"/> Consider replacement if deterioration is substantial <input type="checkbox"/> Substantial cracks might indicate differential or uneven foundation settlement or severe structural problems – consultation with an architect or structural engineer is recommended, particularly if condition worsens <input type="checkbox"/> Verify keying of stucco to lath – if wall area moves when pushed, area of stucco is not bonded and should be replaced with compatible material to avoid potential surface collapse
Painted Masonry	<ul style="list-style-type: none"> • Chalky or dull finish <ul style="list-style-type: none"> • Peeling, flaking, curling and blistering <ul style="list-style-type: none"> • Paint surface worn 	<ul style="list-style-type: none"> <input type="checkbox"/> Additional preparation might be required prior to repainting <input type="checkbox"/> Possible indication of a moisture problem – review drainage, potential leaks and whether there is a vapor barrier in the wall <input type="checkbox"/> Paint failures near the roof edge, downspouts, porch ceilings and foundations are often the result of drainage problems <input type="checkbox"/> Similar to woodwork, painted masonry tends to need repainting every 5 to 8 years with compatible paint
Basement or Cellar	<ul style="list-style-type: none"> • Mortar of walls soft and crumbling • Damp or moldy smell • Evidence of dampness under first floor or around pipes • Evidence of termite damage or other infestation at wood sills on top of foundation walls or first floor joists • Periodic flooding <ul style="list-style-type: none"> • Inadequate insulation below first floor, around pipes, heating and air conditioning ducts, and water heater in unheated basements 	<ul style="list-style-type: none"> <input type="checkbox"/> Review for potential moisture infiltration <input type="checkbox"/> Verify water from exiting downspouts is directed away from building foundation – install splash blocks or downspout extensions at base of downspouts <input type="checkbox"/> Re-grade area at foundation to direct ground water away from building <input type="checkbox"/> Check underground water supply and drainage systems for cracked or clogged pipes <input type="checkbox"/> Re-point deteriorated mortar <input type="checkbox"/> Install appropriate insulation – condensation can form on unheated equipment and frozen pipes can burst

PROPERTY CHECKLIST

Exterior maintenance extends beyond a building’s perimeter to include the surrounding property. Seasonal property maintenance includes cutting grass, raking leaves and shoveling snow. Larger maintenance issues include water management on the site, trimming trees and regular repairs to fences, walls, walkways and paved surfaces. For further information, please refer to the *Guidelines for Historic Landscapes*.

MATERIAL	INSPECTION REVIEW	RECOMMENDED ACTION
Water Management	<ul style="list-style-type: none"> • Groundwater directed towards building foundation 	<input type="checkbox"/> Re-grade area at foundation to direct ground water away from building
	<ul style="list-style-type: none"> • Water ponding adjacent to foundation 	<input type="checkbox"/> Verify water from exiting downspouts is directed away from building foundation – install splash blocks or downspout extensions at base of downspouts
	<ul style="list-style-type: none"> • Vegetation, such as shrubs, are located immediately adjacent to foundation 	<input type="checkbox"/> Vegetation can trap moisture in wall surfaces by blocking sunlight and reducing air circulation – remove or thin vegetation close to a building or conduct regular inspections for rot, algae, fungus and mold behind vegetation
	<ul style="list-style-type: none"> • Tree limbs extend over roof 	<input type="checkbox"/> Consider trimming limbs away from house – they provide shade from the sun that can lead to the formation of moss, fungus, mold or algae; leaves and debris collect and clog gutters and downspouts; tree limbs have the potential to cause severe damage if they fall during a storm
Fences and Walls	<ul style="list-style-type: none"> • Wood fences 	<input type="checkbox"/> Check for deterioration and follow recommendations in the Exterior Woodwork Checklist <input type="checkbox"/> Anticipate repainting or re-staining every 5 to 8 years
	<ul style="list-style-type: none"> • Stone walls 	<input type="checkbox"/> Check for deterioration and follow recommendations in the Masonry and Stucco Checklist
	<ul style="list-style-type: none"> • Metal fences 	<input type="checkbox"/> Check for rust spots or bare metal – remove rust and prepare for re-painting
Walkways, Patios and Pavers	<ul style="list-style-type: none"> • Brick, flagstone or concrete pavers cracked or missing 	<input type="checkbox"/> Verify the condition of the sub-base and replace deteriorated or missing units in-kind
	<ul style="list-style-type: none"> • Water ponding on paved surface • Subsidence of paved surface 	<input type="checkbox"/> Verify the condition of the sub-base and reset individual units to allow appropriate drainage
	<ul style="list-style-type: none"> • Vegetation growing between individual units 	<input type="checkbox"/> Some vegetation has a substantial root structure that can dislodge individual paving units – remove vegetation if appropriate
Asphalt Paving and Driveways	<ul style="list-style-type: none"> • Cracked asphalt 	<input type="checkbox"/> Seal cracks to minimize potential water infiltration <input type="checkbox"/> Consider sealing or repaving entire surface if cracks are substantial or prevalent
	<ul style="list-style-type: none"> • Water ponding on paved surface • Subsidence of paved surface 	<input type="checkbox"/> Verify the condition of the sub-base and patch to allow appropriate drainage



Problems with the downspout have resulted in deterioration of the mortar joints and efflorescence and staining of the brick surface. The projecting water table has been previously patched with stucco and the paint is peeling from both the water table and foundation below. There have been various repointing efforts of the brick as evidenced by the different mortar colors and joint styles.

MAINTENANCE MANUAL

It can be helpful for homeowners to develop a maintenance manual to keep track of conditions, problems, maintenance tasks and contractors who performed the work. This outline of conditions will assist property owners in diagnosing problems, prescribing remedies, and tracking the effectiveness of those remedies in a similar manner that a physician tracks a patient's health. The information in the manual generally falls into three categories:

1. General information
2. Documentation
3. Inspection and maintenance requirements

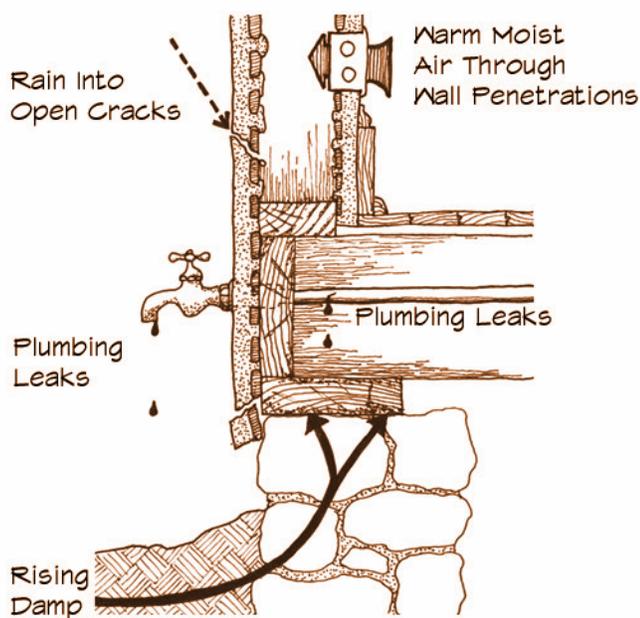
1. General information should include the names and telephone numbers for emergency services and repairs, as well as basic information on specific building equipment. This includes:
 - Address and tax parcel or block and lot number
 - Telephone numbers and addresses for:
 - Fire Department
 - Police Department
 - Department of Building and Zoning
 - Contractors
 - Electrician
 - Electric Company
 - Gas Company
 - Water Company
 - HVAC Repair (Heating, ventilation and air conditioning)
 - Diagram locating electrical disconnects and various utility cut-offs (such as water and gas)
2. Documentation information should include historical, construction, alteration and legal information that is specific to the property's past and current conditions. This includes:
 - Architectural drawings and specifications of original construction or later additions or alterations as available
 - Historic photographs and photographs of existing conditions and dated inspection photographs (as referred to in the Checklists)
 - Construction records including all contracts, bonds, guarantees, equipment data and operating instructions
 - Copies of deeds and other legal documents including covenants and easements
3. The third major component is the preventive maintenance checklists, which should outline the following:
 - Items to be inspected
 - Frequency of the inspections for various components
 - Information on particular repair and upkeep techniques of particular components, materials and equipment

Since the maintenance manual should be updated regularly to be the most effective, it might be helpful to keep this information in a three-ring binder. This information can assist a homeowner keep abreast of new and ongoing problems before they become costly emergency repairs.

MOISTURE

Typically moisture is the primary agent of decay in a building. No matter how “waterproof” a building is, water vapor will find its way into the structure. When moisture saturates a building’s materials, it can:

- Make wood desirable as a food for insect and plant consumption
- Promote the growth of mold, algae and fungi
- Cause building materials, particularly wood and masonry, to swell when wet, exerting additional pressures, particularly during freezing temperatures
- Compromise the structural integrity of the building
- Cause chemical reactions that might deteriorate materials by transmitting salts and minerals through walls, particularly in masonry
- Damage or destroy interior finishes and furnishings



Rain and Precipitation can enter the exterior envelope through damaged or cracked surfaces and crevices with adjacent materials including window and door frames.

Rising Damp is the migration of moisture from the soil into the building structure through capillary action. The soil adjacent to the foundation can become saturated through improper drainage from gutters and downspouts and vegetation planted adjacent to the foundation.

Plumbing Leaks include piping as well as bathroom fixtures, kitchen and laundry appliances, and underground piping.

Condensation occurs when warm moist air from bathrooms, kitchens and laundry facilities comes in contact with cold surfaces and changes to water droplets.

INSULATION AND WEATHERIZATION

Insulation can be an effective means of controlling heat loss in a building. There are three general types of insulation:

- Rigid board insulation
- Fiberglass batt insulation
- Blow-in insulation – includes fiberglass, rock wool and cellulose

When combined with a vapor barrier, integral on most batt insulations, insulation can reduce moisture migration through a building’s envelope. (In this climate, it is generally recommended that the vapor barrier is installed between the livable space and the insulation. When installing batt insulation in an attic floor installation, the vapor barrier should be facing down and the fiberglass batts exposed within the attic.)

In addition to the attic and walls, it is also important to insulate the perimeter of the cellar or crawlspace or the underside of the first floor framing. Before installing insulation, all cracks and openings should be caulked or sealed, and if the cellar or crawlspace will not be heated, the water heater and exposed piping and ducts should be insulated.

To minimize the potential for trapped moisture, it is critical that moisture problems or leaks be addressed before installing insulation. Typical areas of concern are adequate attic, kitchen, bathroom and laundry area ventilation as well as any areas of leaks or condensation.

The HPC encourages:

- Remedying moisture problems before insulating
- Installing adequate ventilation in attics, bathrooms, kitchens and laundry areas

A common area of concern for heat-loss is windows. It is important to verify windows operate and sit properly in their frames, the frame perimeters are caulked, and weather stripping is installed around each sash. Storm windows can greatly increase the thermal efficiency of windows, with wood exterior storm windows or interior storm windows generally being the most appropriate for historic houses. Interior storm windows can be very airtight, substantially reduce condensation and are generally removable during warm weather.

The HPC encourages:

- Making windows operable and sit properly in frames, and caulking open joints around windows
- Installing interior storm windows

PAINTING

Paint is one of the most common ways to protect exterior materials from the elements. When the painted surface has been compromised, moisture and the elements can infiltrate the underlying material and accelerate potential deterioration.

In general, exterior surfaces should be repainted every 5 to 8 years, with potential touch-ups of high traffic, worn or deteriorated areas. If the frequency of complete repainting is greater, there might be an indication of another problem such as:

- Presence of excessive moisture
- Paint was applied with inadequate surface preparation or under adverse conditions
- Paint is not compatible to underlying material or previously applied paint

When considering repainting, the following five steps are recommended:

1. Determine whether painting is necessary: Prior to beginning a painting project, it is appropriate to determine whether complete repainting is necessary or if cleaning and/or spot repainting is more appropriate. By painting more often than is necessary, paint layers can build up, increasing the potential for future paint failure. A dingy finish might only require washing with a mild detergent solution and natural bristle brushes to freshen the appearance.

2. Inspect existing paint for causes of failure: To assure the new paint will last as long as possible, property owners should inspect the existing paint for causes of failure. Some common paint problems are:

- Peeling – possible causes are painting under adverse conditions, inadequate surface preparation or moisture infiltration
- Blistering – cut into blister, and if wood is visible the problem is probably moisture related; if paint is visible, the problem area was probably painted in direct hot sun
- Wrinkling – typically the result of the top coat drying before the underlying coat; sand surface smooth and repaint
- Cracking or crazing – typically the sign of a hard surface that does not expand and contract with underlying material; sand and repaint if cracking and crazing is limited to the surface; remove paint if it extends down to the wood
- Alligatoring – severe cracking and crazing; remove all paint down to bare wood

3. Repair causes of failure: Before repainting, paint failure caused should be repaired. A substantial amount of paint failure is due to moisture problems such as: areas near rooflines, gutters and downspouts; areas near the ground; horizontal surfaces such as window sills; and moisture migration through exterior walls from kitchens, bathrooms and laundry rooms.

4. Prepare surface: To insure a long-lasting painted surface, appropriate surface preparation should be undertaken before repainting.

- Begin by washing the painted surfaces with a mild detergent solution and natural bristle brushes, then carefully scrape and sand for a smooth finish, removing any paint that is not tightly bonded to the surface
- Putty or caulk countersunk nails, window glazing, gaps, joints and openings
- Allow substrate to thoroughly dry before applying primer or paint
- Spot prime bare wood, areas of repair and wood replacement

5. Repaint: High quality paint applied in accordance with manufacturer's recommendations should improve the longevity of a paint job. In general, it is best to use compatible primer and paint from the same manufacturer.

- Apply paint during appropriate weather conditions, generally 50°F and 90°F, less than 60% relative humidity, avoiding direct sunlight



The paint on this door has alligatoring, and severe cracking is visible. Removal of paint down to bare wood and proper door repair are recommended before repainting

PAINT REMOVAL SAFETY

Paint removal is potentially hazardous work. Keep children and pets clear of work areas. Property owners should consult a professional for work that is unfamiliar or potentially unsafe.

- Always wear safety goggles
- With heat tools, always wear appropriate clothing and keep a fire extinguisher nearby
- Paint dust from older buildings can contain lead – wear a dust mask, avoid open food or beverage containers in area of paint removal, and thoroughly clean exposed skin and launder work clothes

STRIPPING PAINT

If the existing paint has failed, it might be necessary to strip all or portions of the paint from the surface. Although there are a variety of tools and chemicals available to strip paint, many of them are potentially hazardous and can cause significant damage to exterior surfaces. All manufacturers' recommendations should be followed during the paint removal process.

The HPC encourages:

- Hand washing with a mild detergent and natural bristle brushes
- Hand scraping
- Hand sanding

The HPC suggests great care if using:

- Rotary tools – disks can leave circular marks and wires can tear into surface
- Heat guns and heat plate – can ignite paint if left in one location too long
- Chemical paint removers – can raise grains of some woods, be expensive and potentially volatile; runoff is potentially hazardous and should be collected to prevent harm to children, pets, vegetation and storm water

The HPC strongly discourages:

- Flame tools such as blowtorches to soften paint – smoldering sparks can start a potentially devastating fire; lead components in paint can vaporize and create highly toxic fumes
- Sandblasting – can be abrasive to surface and wear away protective exterior coating
- High pressure water wash – forces water into open joints affecting interior finishes and structural framing; can be abrasive to exterior surface



PAINT COLORS

Paint colors can highlight a building's architectural features and reflect personal taste. Generally, Colonial Revival homes would historically have a two-color paint scheme; Victorian homes might have a three or four-color, earth-tone, paint scheme. The following book addresses appropriate historic building paint colors:

Moss, Roger W. ed. *Paint in America: The Colors of Historic Buildings*. New York: John Wylie & Sons, 1995.



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GUIDELINES FOR ROOFING



Township of Hopewell Historic Preservation Commission

GUIDELINES FOR ROOFING



Many secondary buildings, especially farm buildings, have corrugated metal roofs. Corrugated metal roofs are very durable and require little maintenance; however the metal should be galvanized or painted to minimize the potential for rusting.

These *Guidelines* were developed in conjunction with Hopewell Township's Historic Preservation Commission (HPC). The HPC reviews Certificate of Appropriateness (COA) applications for proposed exterior alterations to properties locally designated as Historic Landmarks or within a local Historic District. The applicant is responsible for complying with the provisions of the Zoning and Building Codes at the time of application. The applicant must obtain a Certificate of Appropriateness (COA) as well as all necessary permits prior to proceeding with any work. For more information, or to obtain permit applications, please call the COA Administrator at (609) 737-0612, ext. 643.

Please review this information during the early stages of planning your project. Familiarity with this material can assist in moving a project quickly through the approval process, saving applicants both time and money. Additional *Guidelines* addressing other historic building topics are available at the Township Administration Building and on its web site at www.hopewelltp.org.

PURPOSE

These *Guidelines* were prepared to assist property owners with information when considering the repair, alteration or installation of roofing. They are not intended to replace consultation with qualified architects, contractors and the Historic Preservation Commission (HPC). The HPC will be happy to provide consultation and assistance with materials, free of charge.



The gambrel roof is a distinguishing stylistic element of this Dutch Colonial Revival house. Additional light is gained at the second floor through windows at the shed roof dormer extending across the front elevation.

ROOFS

A building's roof provides the first line of defense against the elements and its design greatly affects the overall appearance of a building. Therefore, the following functional and aesthetic concerns should be considered when considering roof alteration.

- Weather-tight roofing preserves a building and provides shelter from rain, wind, sun and snow
- Temperature variation and building movement affect roofing materials
- Roofing helps define the building's character, silhouette and architectural style
- The form, color and texture of roof and roof penetrations affect the scale and massing of the building
- Roofing variations add visual interest to the streetscape

ROOF FORMS

There are six general roof forms in Hopewell. The roof forms can have various pitches and be combined in different manners to provide numerous roof types.

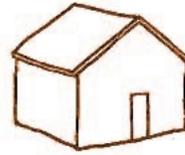
- **Gable Roofs** include front, side and cross-gable configurations. Gable roofs generally have two equally angled inclined planes that meet at a central ridge and represent one of the most common roof forms for their ability to shed water and relative ease of construction. Most vernacular or traditional buildings in the area use this roof form.

In the side gable configuration, the primary entrance is located below the sloping side eaves of the roof. In the front gable configuration, the main entrance is located at a gable end. A cross-gable roof refers to perpendicularly intersecting front and side gable forms, with the primary entrance at either the front or side gable.

- **Shed Roofs**, also known as a pent roofs or lean-tos, are roofs with a single slope, essentially forming a half gable, with rafters spanning between one exterior wall and a secondary wall. Shed roofs are typically used for additions to existing buildings.
- **Gambrel Roofs**, also known as Dutch roofs, include a pair of shallow pitched slopes above a pair of steeply pitched roofs on each side of a center ridge.
- **Hipped Roofs** slope inward from exterior walls, meeting at a ridge or a point, as in pyramidal roofs.
- **Mansard Roofs** include a steeply pitched lower slope beginning at the building cornice, and a nearly flat upper slope that might not be visible from the ground. The lower slope can be straight, concave or convex.
- **Flat Roofs** might be a true horizontal plane or have a low pitch to allow for drainage. Flat roofs often terminate at a parapet, generally an extension of the building's exterior walls.



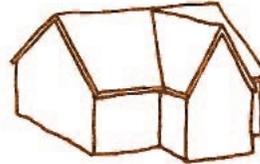
This mansard roof features rectangular and octagonal slates and has a flat upper roof that is not visible from the ground.



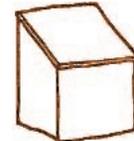
Front Gable



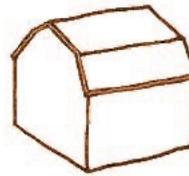
Side Gable



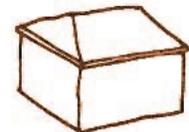
Cross Gable



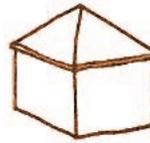
Shed



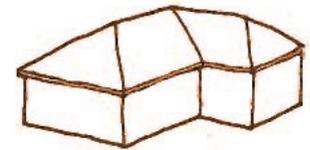
Gambrel



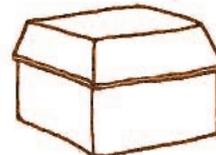
Ridged Hip



Pyramidal Hip



Cross Hipped



Mansard



Flat with Parapet

ROOF PITCH AND MATERIALS

The pitch or slope of a roof helps define the appropriate materials for the roof. Low-pitched to flat roofs depend on a continuous or nearly continuous roof surface to minimize moisture infiltration. Material options for low-pitched roofs include built-up hot tar roofing; roll roofing; and soldered flat seam metal. Possibilities for moderately to steeply sloped roofs include unit materials such as slate, wood shingles, standing seam metal, concrete and asphalt shingles.

ROOFING MATERIALS

Historically, roofing materials were selected based upon practical and aesthetic criteria including pitch, weather conditions, and availability of materials and craftsmen.

In Hopewell Township, historic roof materials were generally slate, metal roofing, wood shingles, and later concrete and asphalt shingles. Each material provides a specific color, texture and pattern to a roof surface. Slate and wood shingles provide a modulated surface with variations in color, texture veining or graining and thickness. Decorative slate shingles were also used, particularly in the second half of the nineteenth century, to add additional colors or shapes to roof surfaces. A standing seam metal roof provides distinct shadow lines that establish a rhythm or scale to the building.

With industrialization at the beginning of the twentieth century, new roofing materials were introduced, including asbestos and asphalt based shingles, as well as varieties of rolled or built-up roofing for flat installations. The variety of metal roofing was also expanded, including copper, galvanized sheet steel and aluminum.

More recently, a larger variety of substitute roofing materials intended to simulate historic materials have been developed, with some being more successful than others. These include “dimensional” or “architectural” asphalt-composition shingles; fiberglass, metal or recycled rubber shingles intended to evoke the appearance of wood or slate shingles.

INVESTIGATING HISTORIC ROOFING

Some investigation is needed to determine the historic roof material for a building. A good place to start is in the attic. New roofs are often laid atop older roof surfaces. By looking between rafters, older roofs can sometimes be seen. Another area of review is the roof framing, lath and sheathing. Because of its weight, slate requires more substantial roof framing, tending towards larger rafters with narrower spacing than wood shingle framing. If the original lath is visible, there are variations in lath spacing that relate to standard sizes for slate and wood shingles. Finally, wood sheathing was often needed in metal roof installations, while lath was used in wood and slate shingle installations.

If physical evidence is not available, documentary evidence such as historic photographs, speaking to neighbors or looking at similar buildings in the community might provide clues about original roof materials.



Slates are available in a variety of shapes and colors. The most common color in Hopewell Township is grey.

SLATE

Slate was a popular roofing material, providing a durable, fire resistant and attractive surface, and in certain conditions, capable of lasting for centuries. It was often used in Colonial as well as Victorian architecture where the variety of shapes and colors for slates, including gray, black, red, green and purple, made the roof surface a visually important building feature.

A slate roof can last 60 to 125 years depending on the stone properties, formation, installation quality and regularity of maintenance. A failing slate slowly delaminates, chips and absorbs moisture, causing the deterioration process to accelerate over time.

Even more often than wood roofing, problems with slate roofs are typically the result of localized failure since many of the roof accessories and fasteners do not have the same 100-year life span as the slate itself. To extend the serviceable life of a roof, property owners are encouraged to address localized problems as they become apparent, using a qualified slate roofer.

Typical localized problems and possible repairs for slate:

- Loosening or corrosion of fasteners for slate or accessories – *Reattach or replace fastener*
- Split or cracked slate – *Install sheet metal under shingle, fill split or hole with roofing cement*
- Missing or damaged slates or roof accessories – *Replace to match original*

If over 20% of the slates on a roof slope are damaged or missing, replacement of the roofing might be warranted, although applicants are strongly encouraged to make every attempt to match decorative colors and patterns with replacement materials. Ceramic tile, rubber and other materials are used to simulate slate, but many have not been available commercially for very long. Dimensional or architectural fiberglass asphalt shingles are manufactured by several companies, simulating the shapes, colors and variegated appearance of slate.



Tin requires regular painting to minimize the potential for rust.

METAL

Metal was popularized for roofing after sheet metal production was expanded following the Civil War, and can be found on primary buildings as well as agricultural structures and outbuildings. Traditional sheet roofing metals include lead, copper, zinc, tin plate, tern plate, and galvanized iron. Many metal roofs require painting with traditional colors including red, silver, green or black. On shallow pitch roofs like porches, cupolas or domes, small rectangular pieces of flat seam metal roofing were installed with edges crimped together and soldered to form a weather-tight surface. On steeper pitched roofs, long continuous seams were used, either in a standing seam or batten seam configuration, providing regular ridges down roof slopes.

A well-installed and maintained metal roof is very durable and can last well over a century. If not properly installed, metal roofing is subject to expansion and contraction with changes in temperature, resulting in buckling and warping. Similar to slate roofing, metal roofing work should be undertaken by a specialist.

Deterioration of the metal surface tends to occur from wearing of the protective painted or galvanized surface, chemical action, pitting or streaking, airborne pollutants, rain or material acids, or galvanic action. Galvanic action occurs when dissimilar metals chemically react against each other and corrode, and can come from adjacent metals, such as fasteners and non-adjacent metals, such as roof cresting via rainwater.

Typical localized problems and possible repairs for metal:

- Worn paint, galvanizing or coating – *Repair*
- Slipping sheet, open seam or solder joint – *Refasten and re-solder*
- Isolated rusting or holes – *Replace to match original*

If the roof is generally rusting, splitting, pitted, severely buckled or warped, or many of the seams or edges are open or disfigured, replacement of the roofing might be warranted, although applicants are encouraged to make every attempt to match seam patterns and color with the replacement material. Metal roofing replacement alternatives are generally either hand fabricated of copper or tin; or pre-manufactured of aluminum or steel, typically with a baked-on painted finish.

WOOD SHINGLES

Wood shingles are typically made from cedar, cypress, redwood, oak, elm or white pine. Historically they represented a common roofing material in Hopewell Township due to material availability and ease of installation.

A wood shingle roof can last 30 to 60 years depending on the roof pitch, quality of materials and installation. However, like all exterior wood installations, a shingle roof is subject to deterioration from rot, splitting, warping and eroding. In many cases, wood shingle roofs are replaced at the first indication of a localized problem when regular maintenance or a less intensive repair would be sufficient. Common locations of failure are the roof accessories including the fasteners, flashing and gutters, which might have a shorter life span than the roofing surface. To extend the serviceable life of a roof, property owners are encouraged to address localized problems as they become apparent.

Typical localized problems and possible repairs for wood shingles:

- Loosening or corrosion of fasteners for shingles or accessories – *Reattach or replace fastener*
- Split or punctured shingle – *Install sheet metal under shingle, fill split or hole with roofing cement*
- Moss or fungi on surface – *Trim back adjacent trees allowing sun to dry out roof surface; investigate fungicide application; check attic for adequate ventilation*
- Missing or damaged shingles or roof accessories – *Replace to match original*

If over 20% of the wood shingles on a roof slope are damaged or missing, replacement of the roofing might be warranted. Wood roofing replacement alternatives include dimensional asphalt shingles or rubber shingles with the texture and color of wood shingles.

Wood Shingles vs. Wood Shakes: A wood shingle is sawn while a wood shake is split, historically by hand, resulting in more variable thickness. In this brochure, the term wood shingle is used to refer to either wood shingles or shakes.



Wood shingles are a locally traditional roofing material.



It is likely that the concrete roof shingles in Hopewell were manufactured in Trenton.

CONCRETE SHINGLES

Concrete shingles, also known as cement shingles, gained in popularity through the beginning of the twentieth century. Some benefits of concrete shingles are that they can provide a watertight roofing system, fire resistance and longevity at a relatively low production cost. In addition, the shingles could vary in shape, color and texture and made to resemble other materials including slate, weathered wood, stone slabs and tile.

The waterproof concrete mix for shingles is made from Portland cement, aggregate and water, which is poured around steel reinforcing within a shingle mold. A simple gable roof typically requires the use of four standard tile shapes; a starter tile, regular field tile, left and right end band tiles, and a ridge tile. Custom shapes were often needed for ridge and valley locations.

A concrete shingle roof typically has a service life of 60 to 80 years. As time passes the surface of the concrete can wear, exposing the steel reinforcing to the elements and increasing the potential for rust, brittleness and cracking. Similar to slate roofing, the concrete shingle fasteners can fail, causing shingles to slip out of position. To extend the serviceable life of a roof, property owners are encouraged to address localized problems as apparent, using a qualified roofer.

Typical problems and possible repairs for concrete shingles:

- Loosening or corrosion of fasteners for shingle or accessories – *Reattach or replace fastener*
- Split or cracked shingle – *Install sheet metal under shingle, fill split or hole with roofing cement*
- Missing or damaged shingle or roof accessories – *Replace to match original*

If over 20% of the concrete shingles on a roof slope are damaged or missing, replacement of the roofing might be warranted, although applicants are strongly encouraged to make every attempt to match decorative colors and patterns with replacement materials. Metal shingles can simulate concrete shingle appearance.

ASPHALT

Asphalt became a popular roofing material at the beginning of the twentieth century providing a relatively inexpensive and easily installed roofing material. Early roofing was generally made of asphalt-saturated felts in a variety of shapes, styles, textures and colors. Today, asphalt shingles are made with fiberglass, generally as 3-tab or “architectural” or “dimensional” shingles, which include multiple layers of material with simulated shadows suggesting wood or slate.

An asphalt shingle roof can be expected to last from 15 to 25 years with “architectural” or “dimensional” shingles lasting longer due to their multiple layers. Over time, asphalt shingles can curl, lose their mineral coating, be dislodged by wind or ice, or become brittle.

Typical localized problems and possible repairs for asphalt:

- Split or puncture – *Install sheet metal under shingle, fill split or hole with roofing cement*
- Moss or fungi on surface – *Trim back adjacent trees allowing sun to dry out roof surface*
- Missing or damaged shingles or roof accessories – *Replace to match original*

If over 20% of the asphalt shingles on a roof slope are damaged or missing, replacement of the roofing might be warranted. Some historic styles and colors for asphalt shingles are still available. Property owners are encouraged to replace historic asphalt in-kind.

ALTERNATE MATERIALS

When considering installing alternate roofing materials, it is important to balance installation costs with the roof's design, long-term durability and aesthetics.

The HPC encourages:

- Maintaining historic appearance of roofs when replacing with an alternate material, including size, shape, texture, pattern, color and other visual characteristics of original
- Installing a variegated or blended color
- Visiting a completed installation rather than relying on brochure photographs
- Verifying that proposed material is appropriate for roof pitch
- Understanding the substrate and attic ventilation appropriate for each material
- Understanding that some artificial materials might fade or change appearance over time

ROOF ACCESSORIES

In addition to the roofing surface, roof accessories are also functional and influence a roof's appearance. Roof accessories include flashing, gutters, downspouts and snow birds.

Flashing is made of thin sheet metal formed to prevent water from entering a building at joints, intersections and changes of pitch. It is typically installed around chimneys, parapet walls, dormer windows, roof valleys, vents, and intersections of porches, additions or bay windows.

Flashing often fails before roof surfaces, particularly with more durable roofing such as slate, resulting in interior leaking. If the flashing deteriorates, it is possible to replace it without replacing the entire roof.

When replacing flashing or installing a new roof, it is important to select a flashing material that has an anticipated life span similar or longer than the roofing. Copper, terne, steel, lead and aluminum are all used for flashing. The longevity of each material is based upon its thickness and whether it is galvanized, treated or coated. Generally, copper or lead coated copper has the longest life span, followed by steel, with aluminum being highly susceptible to punctures, tears and a galvanic reaction to other metals and some roofing materials. It is important to verify flashing materials are sympathetic to existing roofing materials.



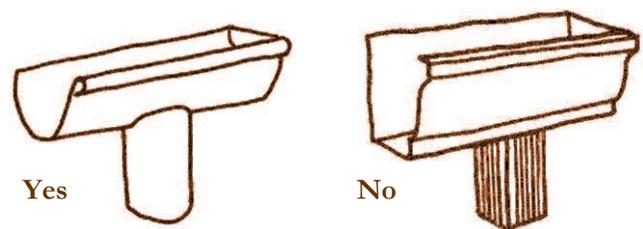
The arrows indicate areas where flashing is typically located.

Gutters are typically located near or along the bottom edge of a roof slope to collect rainwater. Built-in gutters are hidden from view from the ground within or behind architectural features such as cornices or parapets. Pole gutters are located near the bottom edge of a roof slope and project perpendicularly to the roof surface. Both built-in gutters and pole gutters are formed of flashing materials. Hanging gutters are attached to the building just under the roof slope edge and are half-round or profiled in cross section. Hanging gutters have been made of wood, copper, galvanized metals, aluminum and recently vinyl.



Pole gutters, also known as parallel gutters, are built-in gutters located near the roof edge to capture rain water and direct it towards a downspout. They are typically formed of wood, placed vertically to the slope of the roof and wrapped in metal flashing.

Similar to flashings, gutter materials have different longevities. Generally, copper has the longest potential life span, followed by steel, with aluminum being highly susceptible to punctures, tears, dents and galvanic reaction to other metals, and vinyl can become brittle, fracturing in low temperatures.



Half-round gutters with round or rectangular downspouts are preferred to decorative gutters with corrugated downspouts.

Downspouts, also known as rainwater conductors, are generally surface mounted to a building's exterior to conduct a gutter's water down the face of the building to the ground or an underground drainage system. Similar to gutters, downspouts can be fabricated of copper, galvanized metal, aluminum and vinyl with similar characteristics, in a round or rectangular profile.

The HPC encourages:

- Regular cleaning and maintenance of gutters and downspouts
- Retaining original drainage system and appearance, particularly pole gutters or built-in gutters
- Installing half-round gutters rather than a profiled K-gutter, which would compete with building features
- Installing plain round or rectangular downspouts which are more appropriate for use at historic buildings than corrugated downspouts

Snow birds, known as snow guards, are typically cast metal or bent wire devices arranged in a staggered pattern near an eave to prevent large masses of snow from sliding off a roof. They can also protect eaves, cornice and gutters, and take advantage of the insulating effect of snow.



ROOF FEATURES

Roof features are decorative and sometimes functional elements that help to define the profile of a roof against the skyline. Historic rooftop features include chimneys, dormers, cupolas, bell towers, turrets, finials, cresting and weathervanes.

Chimneys were typically designed to complement the style of a building and period of construction. In Hopewell Township, many are constructed of brick with some stone, some of which have been covered with stucco. Early Georgian, Federal style and Colonial Revival buildings tend towards square or rectangular chimney shafts, sometimes with molded caps. Victorian chimneys can include decorative detailing including corbelling, varied patterns, undulating and molded surfaces and decorative terra-cotta chimney pots.



Terra-cotta chimney pots are often found atop brick chimneys on Victorian residences.

Dormers, also known as dormer windows, protrude from the roof surface with a window at the downward slope, providing light and additional headroom under roof eaves. Dormers can have various roof shapes including gables, shed, hipped, eyebrow, segmented pediment and other shapes.



This hipped roof dormer has paired windows.

Cupolas, also known as monitors or belvederes, are structures that project up from the roof, used for ventilation with louvers, or as lookouts with windows. They are often found on agricultural outbuildings to provide ventilation for the animals housed below.



Cupolas should be retained whenever possible.

When addressing roof features, it is important to remember they are part of the stylistic composition of the roof and building, and are often difficult to replace.

The HPC encourages:

- Maintaining and repairing of roof features
- Replacing damaged or missing materials with new to match the material, size, shape, texture, color and other visual characteristics of the original

The HPC discourages:

- Removal of rooftop features without appropriate replacement
- Encapsulating decorative wood elements with vinyl or metal



Replacement of deteriorated asbestos roofing is recommended.

ROOF REPAIR OR REPLACEMENT

The HPC encourages:

- Maintaining, cleaning or repairing of roofing, roof accessories and rooftop features
- Cleaning of gutters and downspouts regularly, typically every spring and fall
- Inspect attics periodically after a storm or freeze to catch small leaks early to minimize interior damage
- Selectively replace damaged or missing materials with new materials to match the material, size, shape, texture, color and other visual characteristics of the original
- If the level of damage or deterioration is beyond repair, completely replacing damaged or missing materials with new materials to match the material, size, shape, texture, pattern, color and other visual characteristics of the original
- If replacement in original material is not possible, replacing the damaged or missing materials with new material of similar size, shape, texture, pattern, color and other visual characteristics of the original
- Installation of fasteners and flashings with a similar expected life span to the roofing material

The HPC discourages:

- Removal of roof features such as chimneys, dormers, cupolas, weathervanes, finials, etc.
- Removing or altering drainage system
- Adding or altering rooftop features at areas visible from a public way that change roof configuration including skylights, television antennas or dishes, solar collectors, mechanical equipment, roof decks, chimney stacks and dormer windows
- Adding rooftop features that create a false historical sense without supporting documentary evidence such as weathervanes or wood shingles on an originally slate roof
- Adding new features that are out of character, scale, materials or detailing to the historic building
- Covering, enclosing or removing eaves or cornices

ADDITIONAL AREAS OF CONSIDERATION

- Roofing work is potentially dangerous and should be left to professionals
- All roofers are not experienced in all materials, obtain references and verify that roofers have appropriately completed compatible work
- Verify the extent of both the material and installation warranties and company histories
- Verify whether removal of existing roofing is required before installation of new roofing; too much weight can damage structural elements
- Verify the condition of substrate for rot or decay and make necessary repairs, including the sheathing or lath, and structural elements
- Use substrate appropriate for roof material and provide adequate ventilation under roof surface
- Use appropriate underlayment including building paper, rosin paper and/or ice shield
- Use a single type of metal compatible to roofing at fasteners, flashing, gutters and downspouts to avoid galvanic action
- Select a flashing material with a comparable life span to the roofing material
- Reference industry standards such as SMACNA, Copper and Common Sense, Slate, etc. – The HPC can suggest project specific references



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Dominique M. Hawkins, AIA, of Preservation Design Partnership in Philadelphia, PA, prepared this publication.



**GUIDELINES FOR
EXTERIOR WOODWORK**



Township of Hopewell Historic Preservation Commission

GUIDELINES FOR EXTERIOR WOODWORK



Wood clapboard siding is one of the most common historic exterior wall materials in Hopewell Township.

PURPOSE

These *Guidelines* were prepared to assist property owners with information when considering the maintenance, repair, replacement or installation of wood siding, shingles and trim. They are not intended to replace consultation with qualified architects, contractors and the Historic Preservation Commission (HPC). The HPC will be happy to provide consultation and assistance with materials, free of charge.

These *Guidelines* were developed in conjunction with Hopewell Township's Historic Preservation Commission (HPC). The HPC reviews Certificate of Appropriateness (COA) applications for proposed exterior alterations to properties locally designated as Historic Landmarks or within a local Historic District. The applicant is responsible for complying with the provisions of the Zoning and Building Codes at the time of application. The applicant must obtain a Certificate of Appropriateness (COA) as well as all necessary permits prior to proceeding with any work. For more information, or to obtain permit applications, please call the COA Administrator at (609) 737-0612, ext. 643.

Please review this information during the early stages of planning your project. Familiarity with this material can assist in moving a project quickly through the approval process, saving applicants both time and money. Additional *Guidelines* addressing other historic building topics are available at the Township Administration Building and on its web site at www.hopewelltpw.org.

WOOD SIDING, SHINGLES AND TRIM

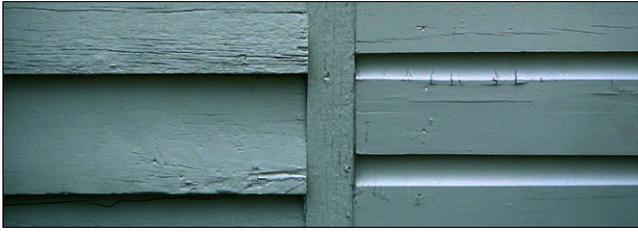
Wood siding, shingles and trim on a building's wall surface serve both functional and aesthetic purposes. Functionally, exterior woodwork acts as the skin of the building, shedding water and deflecting sunlight and wind. Aesthetically, woodwork is an important design feature and can be applied as siding, shingles and ornamental trim. Exterior woodwork:

- Establishes a weather-tight enclosure, providing protection from rain, wind and sun
- Is affected by temperature variation and building movement
- Establishes a building's scale, mass and proportion
- Acts as an important design feature, helping to define a building's architectural style
- Adds visual interest to the streetscape
- Adds pattern and casts shadows on wall surfaces

With proper maintenance, exterior wood elements can last for centuries, however improper maintenance can result in problems and deterioration from water, fungus, mold and insects.



The dark brown color of these stained beveled shingles blends with the natural surroundings.



The original building to the left has clapboard siding, and the later addition, located to the right, has German siding.

COMMON SIDING TYPES

The two most common types of wood siding for residences in Hopewell Township are clapboard and German siding.

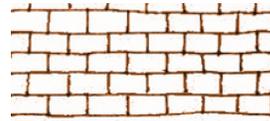
- **Clapboard Siding**, also known as weatherboard or beveled siding, is made from long boards, tapered across the width. Clapboard is installed by nailing an upper board overlapping a lower board with joints staggered across the wall surface. The boards are usually nailed to allow approximately four inches of exposure, or visible board surface.
- **German Siding**, also known as drop siding, is a flat faced board with a concave top and notched bottom. German siding is installed by nailing the notched bottom of the upper board over the concave top of the lower board in a staggered joint pattern.

The two most common types of wood siding for agricultural and secondary buildings in Hopewell Township are vertical board and board and batten siding. Most secondary buildings are also painted red.

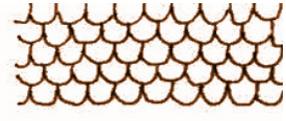
- **Vertical Board Siding**, also known as vertical plank siding, is made from long wide boards fastened vertically across a façade.
- **Board and Batten Siding** is similar to vertical board siding, although the joints between the wide vertical boards are covered with narrow boards or trim known as battens.

WOOD TRIM AND ORNAMENT

Visually, exterior wood trim frames areas of wood siding or shingles and serves as the transition to decorative elements such as doors, windows, cornices and porches. Functionally, it seals siding and shingles at joints, corners and openings, providing a weather-tight building enclosure. Wood trim includes window and door frames, corner boards, rake boards and wood sills. In addition to wood trim, there are numerous types of wood ornaments applied to buildings, including porch posts and columns, brackets, balustrades, newel posts, spindles, and other decorative details.



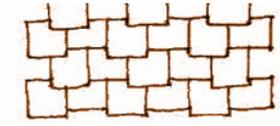
Chisel or Bevel



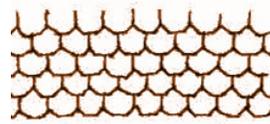
Fishscale



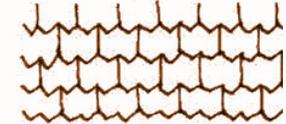
Diamond



Staggered



Octagonal



Sawtooth

COMMON SHINGLE TYPES

Although not as common as siding, there are a variety of wood shingled wall surfaces in Hopewell Township's neighborhoods. Similar to clapboard siding, wood shingles are tapered and installed in an overlapping pattern with staggered joints to minimize potential moisture infiltration. Types of wood shingles include:

- Chisel or Bevel:** Rectangular shape, similar to roof shingles
- Fishscale:** Bottom shingle edge cut in a U shape with multiple rows forming a fishscale pattern
- Diamond:** Bottom shingle edge cut in a V shape with multiple rows forming a diamond pattern
- Staggered:** Chisel or beveled shingles with alternating greater and lesser exposure
- Octagonal:** Bottom shingle corners cut with 45° angle with multiple rows forming an octagonal pattern
- Sawtooth:** Bottom shingle edge cut in a W shape with adjacent shingles forming a sawtooth pattern



This house combines fishscale, beveled and staggered shingles.



Historically board and batten siding was typically used for secondary buildings and farm structures. This example includes visible signs of deterioration. Problems include bare wood from peeling and missing paint, splitting or checking along the bottom edges of the siding, and unsecured battens.

EXTERIOR WOODWORK CHECKLIST

Property owners generally do not notice their exterior woodwork until a problem occurs or there is desire to improve the appearance or reduce maintenance. Typical exterior woodwork concerns include lack of regular maintenance, peeling paint, rot or deterioration, infestation and loose, cracked or missing elements. Property owners will often hide these problems with materials such as vinyl without addressing the root cause of the problem, resulting in further deterioration.

The actual condition of un-maintained exterior wood is generally better than its appearance. In addition, a deteriorated component or area typically does not necessitate the replacement or covering of all exterior woodwork. In most instances, selective repair or replacement of damaged parts and implementation of a regular maintenance program is all that is required. Full exterior woodwork replacement or encapsulation with artificial siding is rarely necessary and should be avoided whenever possible.

The HPC encourages:

- **Conducting semi-annual inspections** of all exterior wood elements to verify condition and determine maintenance needs. Look for signs of deterioration including excessive paint peeling that might indicate moisture problems. Look for veins of dirt on the exterior walls that might be termite mud tunnels. (See Wood Rot section.) Clean exterior surfaces annually in warm weather with a garden hose, household detergent and a bristle scrub brush. Avoid using power washers that can force water into wall cavities through crevices and damage decorative details.
- **Maintaining and repainting** exterior woodwork on a regular basis. A good quality paint job can last 5 to 8 years. For best results, address any moisture or

deterioration problems before painting. Hand scrape and sand where possible to avoid removing or damaging decorative details with power tools or burning. Apply high quality and compatible primer and paint to clean and dry surfaces. Paint colors and luster should be appropriate to the style of the building. For historic buildings, low luster paint is generally most appropriate. Refer to *Guidelines for Exterior Maintenance* for more painting information.

- **Repairing smaller areas of deterioration** by reinforcing or patching as required. Small cracks and checks can be repaired with an exterior wood filler, glue or epoxy. Loose elements can be refastened with careful nailing or drilling.
- **Selective replacement** of deteriorated wood elements when they are beyond repair. The replacement wood pieces should be the same size, profile and character of the historic wood element. It might be helpful to take a sample of the historic wood to the lumber yard for the best match. Wood filler between the seams of the new and old wood will help provide a smooth finish.
- **Replacement** of all exterior wood might be necessary if deterioration of exterior woodwork is severe and extensive. Decorative woodwork should be retained whenever possible since it is a character defining element that can be difficult and costly to replace. Replacement wood element should have the same visual characteristics as the historic woodwork including the size, profile and visual characteristics. Replacement siding materials should be installed in the original pattern being as careful as possible to match the original exposures.

The HPC discourages:

- Removing or encapsulating siding and trim with artificial siding
- Removing or encapsulating of decorative features and trim elements such as brackets, spindles, cornices, columns, posts, etc.

HIRING A CONTRACTOR

- Repair, maintenance, installation and painting of siding can be potentially dangerous work and should be left to professionals
- All contractors are not necessarily experienced in all materials
- Verify extent of warranty for materials and labor
- Check references, especially from 5 years prior, to understand how well work has held up

WOOD ROT

Almost all wood rot is caused by fungi that break down dead wood to return it back to the earth. Spores of decaying fungi are continuously produced and airborne at the interior and exterior of buildings. Rot-causing fungi need four basic elements to thrive: oxygen, moisture, food and moderate temperatures. If any of these elements are missing, rot can be controlled.

Since oxygen and moderate temperatures are prevalent, and most historic buildings are full of wood, an excellent food source, the best hope to minimize rot is to control moisture. Moisture-causing rot generally comes from one of four sources: ground water, rain and snow, plumbing leaks and condensation.

Ground water can migrate from the soil into the house by: direct contact between wood and soil; improper drainage away from the foundation; vegetation too close to the foundation; water vapor condensation in crawl spaces; and capillary action or rising damp in masonry foundation walls carrying water several inches up to wood sills.

Rain and snow can find its way into a building through crevices and be confined within a wall cavity. Exterior surfaces with open joints or those that are not protected by paint, caulk or mortar are subject to water infiltration. Blocked or undersized gutters and downspouts can overflow and direct water towards building surfaces. Rainwater splashing on hard ground surfaces can rebound, saturating exterior woodwork. Ice build-up along roof eaves without appropriate flashing could back-up under shingles and melt.

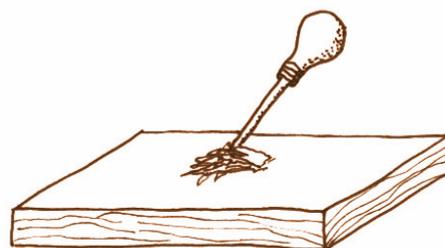
Leaky plumbing is generally sudden, such as a cracked pipe, or slow, where a gradual, unnoticed leak can soak a wood structure until significant damage occurs. Cracks in grout and tiles on floors and around bathtubs, sinks and washing machines can admit enough water to rot wood framing. Periodic inspections for signs of leaking behind bathtub access panels, within sink vanities, and around washing machines and dishwashers can help to catch a problem earlier.

Condensation is an insidious source of moisture since the water comes from air vapor rather than an obvious source such as rain or a cracked pipe. Condensation occurs when warm moist air contacts a cold surface. Warm air can hold more moisture than cold air. If warm moist air comes in contact with a cold surface that is below the dew point temperature, the excess moisture changes to water droplets on the cold surface. Some common areas for condensation include:

- Crawl spaces beneath a building where water can condense on sills and joists, especially in corners with poor air circulation and if the building is air conditioned in the summer – Plastic sheathing on the ground is recommended
- Cold water pipes in humid weather – Pipe insulation is recommended
- Window panes – Re-caulking of existing storm windows or new storm windows are recommended
- High humidity in kitchens, bathrooms and laundries – Exhaust fans and exterior clothes dryer vents are recommended
- Wood deterioration atop foundation – Wall insulation with an interior-facing vapor barrier and interior humidity control is recommended



Less penetration and long splinters are an indication of healthy wood



Greater penetration and short splinters against the grain are a possible indication of rot

DETECTING WOOD ROT

A simple means of testing for rot is to stab the wood member perpendicular to the grain with an awl or ice pick. Then measure the penetration depth and evaluate the type of splintering using the following criteria:

- If the penetration is less than ¼ inch, the component does not need replacement
- If the penetration is more than ½ inch, the component might need replacement
- If long splinters are produced, the wood is healthy and the component does not need replacement
- If short sections broken across the grain are produced, the component might need replacement



Vinyl siding of different colors has been installed at each residence. The siding is not aligned and obscures wood window surrounds.

TYPES OF ARTIFICIAL SIDING

Artificial siding has been applied by Hopewell Township's property owners for years to provide an updated appearance and minimize maintenance and repair needs. Artificial siding materials include asphalt and asbestos and more commonly, vinyl and aluminum siding and capping. These materials can significantly change a building's character and appearance and are not necessarily maintenance free. Most forms of artificial siding can trap moisture within a wall thickness, accelerating potential rot and decay.



Asphalt siding often simulates brick or stone wall surfaces.



Asbestos siding is often embossed with a wood grain pattern. The removal of asbestos siding can be dangerous and should be undertaken by trained professionals.

VINYL AND ALUMINUM SIDING

Vinyl and aluminum siding typically simulates wood. Because vinyl and aluminum are extruded pieces of plastic and metal, they are thinner and visually lighter than wood. It should also be noted that in the event of a fire, the fumes from vinyl can be very hazardous.



If considering artificial siding, a smooth finish is recommended rather than a wood-grain finish. Replacement of this aluminum siding section would be the best way to repair the puncture. Since siding colors tend to fade from sunlight, the replacement siding probably would not match the existing siding.

FIBER-CEMENT SIDING

Fiber-cement siding is a lightweight, solid material that is a durable and visually more compatible material to wood than vinyl or aluminum siding. It is manufactured in similar sizes and shapes to wood products including siding, shingles and trim, making it easier to duplicate historic characteristics. The installation method is similar to wood, and it can be cut to shape on-site using hand tools, and painted to match any color scheme. Manufacturers indicate that fiber-cement products are resistant to rot, termites, fire and delamination, and are dimensionally stable, allowing paint to last longer. Fiber-cement products cost more than vinyl or aluminum siding but much less than wood siding. They are increasingly common in this region, and some manufacturers offer warranties for as long as 50 years.



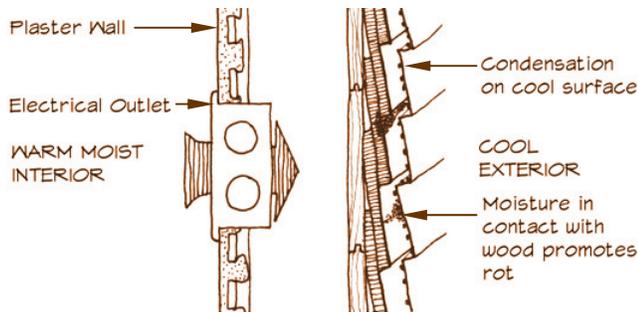
Fiber-cement siding material is a good economical alternative for an addition to an historic house. The surface of the Hardiplank siding above was painted to match the existing paint scheme.

EXTERIOR WOODWORK OR ARTIFICIAL SIDING?

Property owners install artificial siding because of the desire to avoid maintenance issues associated with repainting, and aggressive marketing by the vinyl industry. They believe that artificial siding provides a

maintenance free solution that will solve their exterior building problems for a lifetime. The table below contrasts common statements by the vinyl industry with the viewpoint of preservation professionals.

VINYL INDUSTRY VIEW	PRESERVATION VIEW
<i>“Vinyl siding is a cost effective alternative to wood”</i>	<ul style="list-style-type: none"> • Vinyl siding is usually guaranteed for 20 years and costs approximately the same as two quality paint jobs. (Guarantees over 20 years are usually prorated.) Properly maintained wood siding has been found to last hundreds of years. • Vinyl siding installed over existing woodwork can trap moisture and lead to costly hidden structural repairs. (See weatherproof section below.) • Artificial siding can reduce home values by covering distinctive qualities and details.
<i>“Vinyl siding improves the appearance of a building”</i>	<ul style="list-style-type: none"> • Exposures, shadow lines, joint layout, texture and the sheen of vinyl siding typically do not match wood. • Historic or decorative trim is often covered or removed in the installation process. Installation typically requires damage to historic wall materials. • Stock vinyl trim is generally narrower than historic wood trim. • Historic details and decorative elements are generally not available in vinyl. • Available vinyl colors are limited and might not be appropriate for the building style. • Colors are difficult to change. (If change is desired, the type of paint should be compatible in material and color to minimize peeling, warping and curling.)
<i>“Vinyl siding is weatherproof”</i>	<ul style="list-style-type: none"> • It can be weatherproof if properly installed, but at many historic buildings there are crevices and uneven surfaces that allow moisture behind the artificial siding or capping. (Generally, new buildings with vinyl siding are constructed with an internal vapor barrier to exhaust moisture-laden air.) • Unlike wood, vinyl or metal siding does not breathe and can trap moisture within a building’s wall cavity. Trapped moisture condenses when it reaches the dew point, changing to water droplets that can drip and run through the wall’s structure. This can lead to rotting of sills and structural components, and potential mold and insect damage. (To reduce trapped moisture, install continuous wall vents under eaves and add weep holes to artificial siding.) • Installing vinyl or metal over deteriorated wood will not make the problem disappear. (Generally, by trapping additional moisture, the deterioration could accelerate and lead to costly hidden structural repairs.)
<i>“Vinyl siding conserves energy”</i>	<ul style="list-style-type: none"> • Insulation value of vinyl siding is minimal, even when it is backed by a thin layer of insulating foam or rigid board insulation. Furthermore, the insulation could trap additional moisture within the wall cavity. • Tests have shown that up to 75% of a typical building’s heat loss is through its roof. Installing attic insulation is a more cost effective method of reducing a heating bill.
<i>“Vinyl siding is maintenance free”</i>	<ul style="list-style-type: none"> • Like wood, vinyl siding needs regular cleaning. • Vinyl and aluminum siding is subject to denting, warping, cupping, puncturing and fading from sunlight exposure. Vinyl siding is prone to cracking in cold weather. Replacement patches usually do not match the earlier installation. • The painting of vinyl or aluminum siding to change or to freshen the appearance typically voids the manufacturer’s warrantee. (Type and color of paint used over vinyl siding should be compatible to minimize potential peeling, warping and curling. Once painted, artificial siding will need to be repainted as often as wood.)



ARTIFICIAL SIDING INSTALLATION

As a result of changes in our living standards, condensation has become a significant problem in historic buildings. Today's buildings include central heating and air conditioning to stabilize temperatures and relative humidity, and insulation that can trap moisture. Buildings also include moisture-intensive conveniences such as plumbing, bathrooms, and laundry and cooking facilities. While interior conditions have stabilized and moisture laden activities increased, exterior temperatures and relative humidity are continuously changing.

The differences in temperature and relative humidity between the interior and exterior of our buildings are distributed through the thicknesses of exterior building walls. If the temperature is below the dew point at any location within the wall, condensation will occur causing the moisture to change into water droplets. Installing vinyl siding over wood can exacerbate this problem and hide deterioration until it is very severe. Unlike wood, vinyl and aluminum siding do not "breathe" and can trap moisture within a building's wall cavity, leading to rot, mold and insect damage of the wood structure. Therefore, it is important to inspect and repair potential water sources to minimize the moisture within the wall cavity.

REMOVING ARTIFICIAL SIDING

Some Hopewell Township residents have removed artificial siding and restored underlying woodwork. Artificial siding removal allows buildings to function as originally designed and exposes problems that might have developed since its installation. If removing artificial siding from woodwork:

- Expect to replace about 20% of woodwork
- Expect surprises such as removed details and trim
- Sell aluminum siding for recycling

Aluminum capping has been installed over the window frame. Aluminum capping usually lacks the profile and detail of wood trim. It can also trap moisture within the wall surface that can accelerate rot and deterioration.



The window frame has been completely covered with the vinyl siding. The depth and articulation formerly provided by the frame has been eliminated. Without the frame, the visual dimensions of the window are changed and character of the building diminished.

WOOD TRIM AND ARTIFICIAL SIDING

Most historic buildings usually have significant wood door and window frames, moldings and trim that can be removed, damaged or concealed in inappropriate artificial siding installations. The loss of these features can significantly alter the character of a building.

Artificial siding installation over existing materials can increase the wall thickness, causing the existing wood trim to appear set back from the wall rather than projecting from it. This also diminishes the visual characteristics of the building.

To avoid these problems, retain as much of the wood trim and decorative details exposed as possible. In some instances spacers might need to be installed behind wood trim to maintain appropriate depths and visual characteristics.

The HPC encourages:

- Leaving wood trim in place whenever possible



The wood siding remains under the aluminum siding.

INSTALLING ARTIFICIAL SIDING

If the repair and preservation of exterior woodwork is not an option, owners can install vinyl or aluminum siding and capping in a manner that minimizes damage to historic materials and mimics the appearance.

The HPC encourages:

- Limiting the installation of artificial siding to areas of severe deterioration that are not repairable
- Repairing and repainting woodwork before installing artificial siding
- Retaining and leaving exposed decorative wood elements such as brackets, spindles, cornices, columns, posts, etc.
- Installing siding abutting existing wood trim at doors, windows and corners
- Maintaining ventilation behind vinyl or aluminum siding to minimize condensation and hidden rot
- Minimizing nailing and fastening into decorative elements and unique features
- Matching visual characteristics and patterns of historic materials
- Selecting a siding color that is compatible to the style of the building

The HPC discourages:

- Installing artificial siding over brick, stone or stucco since it changes the historic appearance and can lead to accelerated deterioration
- Wood-grained siding
- Wavy-edged artificial shingles
- Vertical artificial siding and textured plywood (T-111) simulated vertical siding at residences



Agricultural outbuildings historically were typically painted red and usually featured vertical board or board and batten siding.



The owners of each half of this semi-detached house applied a uniform paint scheme, making it appear like a larger single home. Architectural woodwork details including the overhanging cornice, decorative brackets and porch posts remain and provide architectural richness.



This project has been financed in part with Federal funds from the National Park Service, U.S. Department of the Interior, and administered by the New Jersey Department of Environmental Protection, Historic Preservation Office. The contents and opinions do not necessarily reflect the views or policies of the U.S. Department of the Interior, nor does the mention of trade names or commercial products constitute endorsement or recommendation by the Department of the Interior.

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Dominique M. Hawkins, AIA, of Preservation Design Partnership in Philadelphia, PA, prepared this publication.



GUIDELINES FOR MASONRY & STUCCO



Township of Hopewell Historic Preservation Commission

GUIDELINES FOR MASONRY & STUCCO



The Mount Rose Distillery is built of common bond brick.

PURPOSE

These *Guidelines* were prepared to assist property owners with information when considering the maintenance, repair, replacement or installation of exterior stone, brick and stucco. They are not intended to replace consultation with qualified architects, contractors and the Historic Preservation Commission (HPC). The HPC will be happy to provide consultation and assistance with materials, free of charge.

These *Guidelines* were developed in conjunction with Hopewell Township's Historic Preservation Commission (HPC). The HPC reviews Certificate of Appropriateness (COA) applications for proposed exterior alterations to properties locally designated as Historic Landmarks or within a local Historic District. The applicant is responsible for complying with the provisions of the Zoning and Building Codes at the time of application. The applicant must obtain a Certificate of Appropriateness (COA) as well as all necessary permits prior to proceeding with any work. For more information, or to obtain permit applications, please call the COA Administrator at (609) 737-0612, ext. 643.

Please review this information during the early stages of planning your project. Familiarity with this material can assist in moving a project quickly through the approval process, saving applicants both time and money. Additional *Guidelines* addressing other historic building topics are available at the Township Administration Building and on its web site at www.hopewelltp.org.

EXTERIOR MASONRY

Exterior masonry provides a strong, durable and attractive appearance with relatively low maintenance. Historically, a building's exterior masonry wall surface serves both visual and functional purposes. Visually, exterior masonry is an important design feature and includes stone, brick and in some instances, stucco. Functionally, historic exterior masonry typically acts as the principal load bearing system for the building as well as its skin, shedding water and deflecting sunlight and wind. Historic exterior masonry:

- Establishes a building's scale, mass and proportion
- Acts as an important design feature, helping to define a building's architectural style
- Adds visual interest to the streetscape
- Adds pattern and casts shadows on wall surfaces
- Acts as a principal element in a building's structural system
- Establishes a weather-tight enclosure, providing protection from rain, wind and sun
- Is affected by temperature variation and building movement

With proper maintenance, exterior masonry and stucco can last for centuries. Improper maintenance and repair can lead to problems and deterioration from water, inappropriate pointing and cleaning.



Historically, stone has been used to convey prominence and wealth.

TYPICAL CAUSES OF MASONRY PROBLEMS

The principal components of most masonry walls are either stone or brick. Mortar, which is located between the bricks or stones, bonds the individual units together, transfers the load through the masonry and provides a weather-tight seal at the exterior surface. Many problems associated with historic masonry result from the failure to keep masonry mortar joints in good repair. Deteriorated mortar joints can allow water to penetrate the masonry and cause severe interior and exterior damage. There are five principal causes of mortar joint failures:

Weathering of mortar occurs when rain, wind and pollution eat away at softer historic mortar over time. (Historic mortar was purposely soft to allow the masonry wall to expand and contract with seasonal temperature changes.)

Uneven Settling of masonry walls may result in cracks along masonry joints or within masonry units.

Temperature Cycles can cause deterioration in this climate, which is subject to extreme heat in the summer and cold in the winter. Temperature cycles can cause masonry and mortar to expand and contract at different rates, breaking the masonry's bond with the mortar. This situation can be exacerbated if moisture enters an open joint, then freezes and expands, potentially popping out the surface of the mortar and the masonry, resulting in spalling.

Poor Original Design and Materials can cause ongoing problems if the masonry and mortar are incompatible or inappropriate for their installation location, or if the masonry does not properly shed water.

Insufficient Exterior Maintenance refers to potential areas that might cause water to enter a masonry wall and contribute to its accelerated deterioration. Potential areas of concern are poorly functioning gutters, downspouts and flashing; rising damp; standing water at foundations; water splashing back off hard surfaces onto walls; or water-entrapping vegetation such as ivy or shrubs on or near masonry walls, etc.

DEFINITIONS:

Efflorescence: Water-soluble salts leached out of masonry or concrete by capillary action and deposited on a surface by evaporation, usually as a white, powdery surface

Spalling: Chipping or flaking of masonry



Surface delamination of the bricks, several open joints and poor patching are visible. The delaminated areas and open joints can allow water penetration and accelerated deterioration.

WHAT TO LOOK FOR

It is important to identify masonry problems as early as possible to minimize potential ongoing damage. This is particularly true of masonry that is exposed to a water source. Once water is permitted to penetrate a masonry wall, the deterioration will accelerate very quickly, becoming more severe and costly. Some of the signs of problems in masonry walls include:

- Disintegration of mortar more than ¼” deep from masonry surface
- Cracks in mortar, or mortar bonds broken or pulled away from masonry
- Open mortar joints
- Loose bricks or stones
- Delaminating or surface erosion of bricks or stones
- Pitted surfaces from sandblasting and abrasive cleaning
- Damp walls, sometimes evident through the growth of moss or algae, and more commonly evident through efflorescence, which is typically visible as a white powdery substance on the wall surface
- Damaged interior plaster or finishes
- Rot of wood framing along masonry walls

Before attempting to repair masonry problems, it is strongly recommended that the cause of the problem be addressed. This would include repairing any outstanding exterior maintenance and drainage issues.

DETERIORATED MASONRY

Although historic mortar will generally deteriorate before stones or bricks, individual stones or bricks can suffer damage from a variety of causes including moisture infiltration, harsh chemicals, abrasive treatments, hard pointing mortar, differential settlement, biological growth and heavy pollution.

After a stone or brick has been installed and exposed to the elements for a length of time, it develops a protective layer or crust on its outer surface. This layer provides additional protection for the interior of the masonry unit from outside elements such as moisture and pollution. If the protective layer is compromised, damaged, or spalled, the unprotected and softer inner core is then exposed and the deterioration can accelerate, causing the surface to become powdery and scale off. Spalling generally results from the build-up of internal pressure in a wall and can be caused by:

- Freeze-thaw action of moisture that penetrates a masonry surface, freezes and expands
- Expansion of metal components within a wall such as window lintels and tie backs that become wet, rust and expand
- Efflorescence of salts or minerals on the wall surface or build-up of salts within the wall that crystallize and expand
- Differential settlement

The principal cause of most instances of spalling is the infiltration of water or moisture inside the masonry construction.



The roots of ivy or other vegetation growing on walls tends to loosen stucco and mortar, creating openings in the surface. Surface vegetation also has a propensity to reduce evaporation and increase trapped moisture.

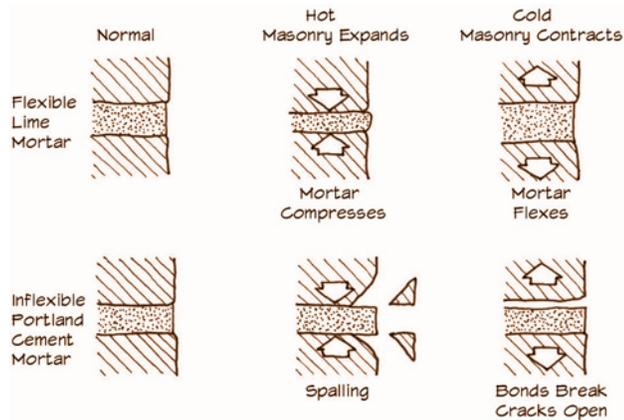
The HPC encourages:

- Matching replacement masonry units to historic units in regard to colors, textures, sizes, shapes, bonding pattern and compressive strength
- Replacement areas that are toothed or keyed into existing masonry
- Reusing historic bricks or stones whenever possible (However, use caution when installing recycled historic bricks since they might not have been intended for exterior exposure - they might have been low-fired, softer, interior bricks)
- Retaining and repairing historic masonry details including cornices, window and door surrounds and chimneys
- Photographing and measuring existing conditions before beginning work to facilitate accurate duplication
- Careful removal of moss, ivy and other vegetation from masonry walls
- Cleaning using the gentlest means possible (Prolonged saturation with low pressure water followed by brushing with a bristle brush is often sufficient)
- Installing sloped mortar wash surfaces at the top of chimneys to protect chimney walls
- Installing stone or terra-cotta chimney caps in lieu of modern metal chimney caps, which were a mid twentieth century development.

The HPC discourages:

- Replacement masonry or mortar that is harder than the original historic masonry
- Covering or removing decorative masonry
- Covering masonry with artificial siding
- Painting masonry surfaces or applying water repellent or waterproof coatings that can trap moisture and prevent the wall from “breathing”
- Installing modern “antiqued” brick for patching historic masonry, since they are generally much harder and probably would not match the historic appearance
- Cleaning with harsh chemicals, sand blasting, power washing, metal brushes or grinders that can damage the protective exposed surface
- Allowing ivy or other vegetation to grow on masonry walls

MORTAR HARDNESS AND MASONRY

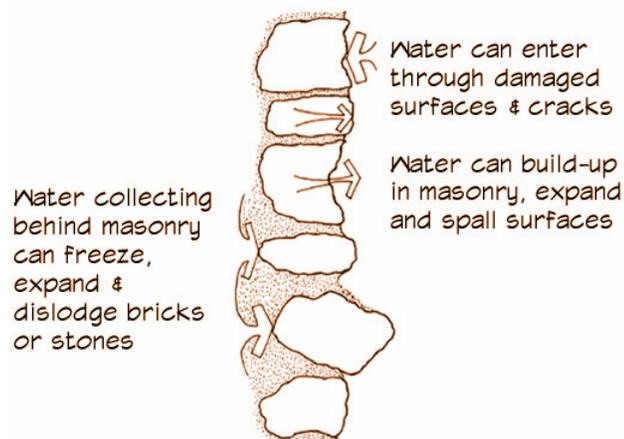


Temperature changes cause masonry units to expand when heated and contract when cold. The expansion and contraction of the masonry units results in compression and flexing of the adjoining mortar joints.

Lime based mortar is pliable and is more likely to compress and flex through temperature cycles. If properly installed, it should also be softer than the adjoining masonry allowing it to deteriorate before the adjacent masonry.

Portland cement based mortars are significantly harder than lime based mortars and far less elastic. In addition, cement mortars tend to be substantially harder than historic masonry. When masonry units expand in warm temperatures, they press against the harder cement mortar and tend to spall at the edges. During colder temperatures, masonry units tend to pull away from mortar resulting in open cracks that can allow moisture penetration.

MASONRY DETERIORATION



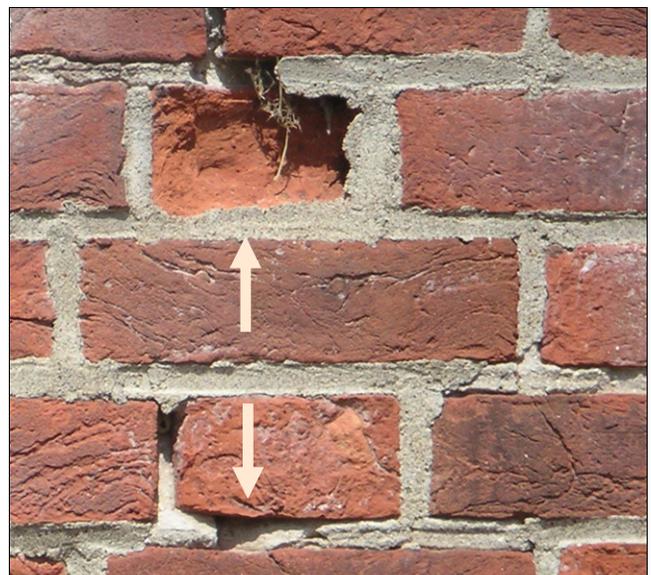
Moisture can enter walls through various ways including mortar cracks, spalled surfaces, groundwater and interior conditions. Moisture and impurities in masonry walls can cause outward pressure and result in spalling, dislodging of masonry units and deterioration of mortar joints.

DETERIORATED MORTAR

Historically, mortar was mixed to be softer, or have less compressive strength, than the adjacent stone or brick. Because it is softer, the mortar acts as a cushion or sacrificial portion of the masonry surface as it expands and contracts through changes in temperature, moisture and differential settlement. If mortar is harder than the adjacent masonry, the stresses could be relieved through the individual stones and bricks. Cracking and spalling of the individual masonry units could occur, areas for potential moisture infiltration and potentially unstable or structurally compromised walls.

Because of its softness, mortar will typically deteriorate faster than stone or brick, requiring more frequent replacement, while the masonry remains relatively intact. Repointing is the process of removing deteriorated mortar from joints in a masonry wall and replacing it with new mortar. With the installation of the new joints, the visual and physical integrity of the masonry can be restored.

Repointing work can last 50 to 100 years when completed properly. However, it can be time consuming and expensive. Repointing requires a great deal of hand labor by knowledgeable craftsmen to remove the existing mortar, achieve the appropriate mortar mix and hardness, apply the mortar, and tool it to match the historic joint style and appearance. It is generally recommended that repointing projects be limited to areas of deterioration rather than an entire building.



The surface of the upper brick noted by the arrow has spalled. The repointing mortar is probably harder than the bricks. The mortar is also beginning to crack and pop out of the lower joints.

MORTAR PROPERTIES

Historic mortar is generally composed of a few simple ingredients, sand, lime and/or cement, water, and possibly additives such as animal hair or oyster shells. Pre-mixed mortar available from hardware stores is generally inappropriate for use on historic masonry walls because it is too hard and contains too much Portland cement.

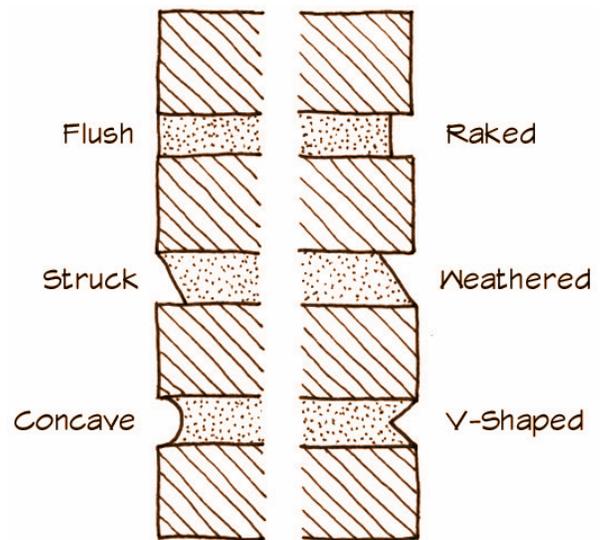
Sand is by far the largest component of mortar and defines its color, character and texture. Since masons would use products that were readily available, sand from historic mortars tended to have weathered, rounded edges and was available in a great variety of grain sizes and shades of white, grey and yellow. Most sand available today has sharper edges from being broken or mechanically pulverized and is sieved into standard grain sizes. Mixing sand colors and sizes might be needed to match historic mortar.

Lime and Portland Cement act as binders for the mortar. High lime mortar is soft, porous and varies little in volume with seasonal temperature fluctuations. Because lime is slightly water-soluble, high-lime mortars can be self-healing and reseal hairline cracks. By contrast, Portland cement can be extremely hard, resistant to water movement, shrinks significantly upon setting and undergoes relatively large thermal movements. Portland cement is available in white or grey, and the two colors can be mixed to achieve the desired coloration. In general, high lime mortars are recommended for nearly all historic repointing projects to ensure a good bond with original mortar and masonry. It is possible to add a small percentage of Portland cement to a high lime mixture to improve workability and plasticity.

Water needs to be clean and free of salts, detrimental minerals and acid. If not, it can break down the mortar and adjacent masonry and discolor finished surfaces.

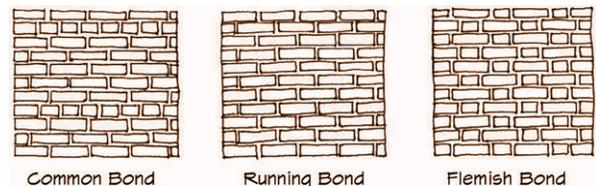
Historic Additives can include oyster shells, animal hair, clay particles, etc. To duplicate the character of historic mortar it might be necessary to include additives to match the original. It should be noted that there are several types of chemical additives available today including those that increase or reduce the setting time, expand the recommended temperature installation ranges, certain pigments, etc. The use of newer chemical additives is strongly discouraged unless they have been specifically tested over an extended period of time with similar materials as the proposed installation conditions.

JOINT PROFILES



There are numerous joint profile types, with each producing different shadow lines and highlights. When repointing an area of masonry, it is important to tool mortar to match the existing joint profile for a consistent appearance.

BRICK BONDING PATTERNS



The most frequently constructed brick bonding pattern is common bond, which features stretcher courses with a header course every 6th row. Other familiar brick bonding patterns include running bond, comprised of only stretcher courses, and Flemish bond, alternating single stretchers and headers.

STONE BONDING PATTERNS



Uncoursed and coursed fieldstone are common building and landscape wall materials in Hopewell Township, particularly for foundation walls. There are fewer cases of cut stone walls. Quoins are large rectangular stones located at a building's outside corners. Historically, quoins were used in a variety of bonding patterns including fieldstone.



The surface of the bricks are peeling off or delaminating due to continuous moisture from a faulty gutter and downspout as well as the application of hard Portland cement based mortar.

MATCHING HISTORIC MORTAR

Although the most exact method of matching historic mortar is to have it analyzed by a professional, below is a less costly testing method that approximates the original:

1. Remove 5 to 6 samples of historic mortar from different areas of the building. The building might have been repointed several times, so care should be used in selecting the earliest possible samples.
2. Set the largest sample aside for comparison with the pointing mortar.
3. Break the remaining samples with a wood mallet until they are separated into their constituent parts. There should be approximately ¼ cup.
4. Carefully blow away the powdery material, which is the lime and/or cement matrix which bond the sands and additives together.
5. Examine the remaining sand and historic additives with a magnifying glass, noting the color range and various sizes.
6. Mix several mortar samples based upon the components of the historic mortar noting the composition of each sample including sands, historic additives, lime, Portland cement and water. Place samples in channels or on a board and tool to match historic mortar profiles.
7. Allow samples to dry thoroughly and compare to historic mortar. Adjust mortar mix and create new samples until a visual match is achieved.



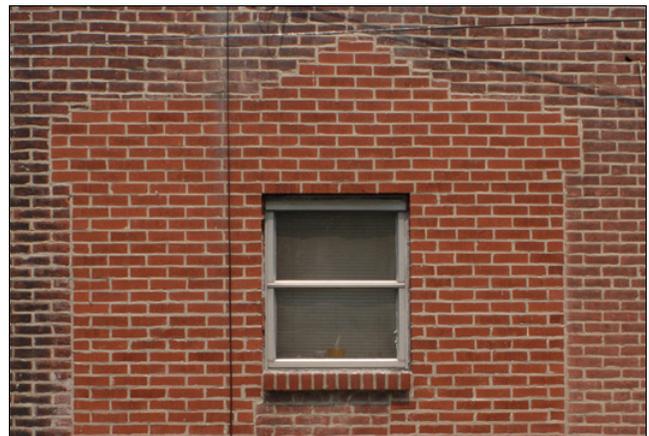
There is a stark difference in color between the more recent repointing and the underlying historic mortar, as indicated by the arrow. The newer mortar has been installed with butter joints smeared over the existing mortar without proper keying and obscuring the stone edges. The newer mortar also appears to have a high Portland cement content, making it harder than the underlying mortar and increasing the possibility of spalling.

The HPC encourages:

- Repointing mortar of the same hardness or softer than the original mortar and always softer than the original masonry, typically high lime content mortar with limited Portland cement

The HPC discourages:

- Installing hard, Portland cement based mortar
- Utilizing pre-mixed mortar that contains a high percentage of Portland cement and does not match the appearance of the historic mortar



The brick in-fill area is very visible and outlined by a thicker mortar joint. The replacement bricks are not keyed into adjacent brickwork and a different size and color than the historic bricks.

REPOINTING HISTORIC MASONRY

To achieve the best possible results, repointing work is best completed during fair weather. Generally, it is recommended that repointing be completed when the temperature is expected to remain between 40°F and 90°F for at least two days after the installation of the mortar. This will help to properly bond the mortar to the masonry and minimize the possibility of freezing and excessive evaporation. A good repointing job can last 50 to 100 years, while a poor job can damage historic masonry and mortar resulting in more costly future repairs. To repoint joints:

1. Remove existing mortar in areas of repointing to a minimum of 2½ times the width of the joint or until deteriorated mortar is removed. (For brick, approximately ½” to 1” deep.)
2. Before filling, particles from joints should be removed with a stream of water. Joints should be damp and without standing water at the time of repointing.
3. Mortar should be thoroughly mixed and used within 30 minutes of mixing.
4. Apply mortar in ¼” layers, packing it well back into the corners. Apply additional layers when installed mortar has reached thumb-print hardness.
5. Tool final layer to match historic joint profile when mortar is thumb-print hard. Proper timing is important to match color and appearance.
6. Carefully clean excess mortar from masonry surface with a stiff bristle brush avoiding brushing and damaging new mortar joints. Cleaning should occur approximately 1 to 2 hours after tooling of the final layer and before mortar has fully hardened.



The mortar between the bricks has deteriorated particularly at the vertical joints, increasing the potential for moisture infiltration. The area at the lower right of the photograph has been recently repointed and mortar smeared rather than tooled.



In rare cases, such as this random stone retaining wall, the masonry should not be pointed. The open joints allow the moisture and storm water collected in the soil behind the wall to permeate through the wall, minimizing the potential for bulging and collapse of the wall from seasonal freezing and thawing.

The HPC encourages:

- Consulting with a professional to achieve the best possible results
- Repointing in fair weather for the best possible results
- Removal of mortar with hand tools
- Installing a high lime mortar mix that is softer than the existing masonry
- Repointing of joints before cleaning to prevent moisture from migrating into walls
- Repointing mortar that matches the appearance, color, texture, joint size and tooling of the historic mortar

The HPC discourages:

- Using power tools to remove existing mortar from joints since many power tools can damage historic masonry by over-cutting joints and breaking edges, resulting in wider joints
- The use of modern chemical additives
- Installing the mortar in a single layer
- Widening the existing mortar joints or overlapping the new mortar over the masonry surface
- Cleaning mortar from masonry with metal brushes or chemicals that can damage the surface of the masonry
- Installing hard, Portland cement based mortar

MASONRY CLEANING

Appropriate masonry cleaning can enhance the character and overall appearance of a building. However, improper cleaning of historic masonry can cause damage to the historic surfaces and cause more harm than good both physically and aesthetically. There are three principal reasons for cleaning historic masonry:

- Improve the appearance by removing dirt, pollen, stains, graffiti or paint
- Retard deterioration by removing deposits, salts, efflorescence, acids, ivy, algae, moss, mildew and pollutants that can damage masonry surfaces
- Clean select areas to match historic masonry or mortar or to assess surface condition

Masonry cleaning methods fall within three general categories:

- Low pressure water, with the possible use of gentle detergent and brushing
- Mechanical cleaning including sand blasting, power washing, grinding, sanding, wire brushing
- Chemical cleaning

Because of the potential damage to historic surfaces, cleaning should be completed using the gentlest means possible. In many cases, soaking the masonry with low pressure water can remove much of the surface dirt and deposits. If the soaking method is not successful, it might be necessary to add a non-ionic detergent or brush the wall surface with a natural bristle brush.

The use of mechanical methods, including abrasive blasting, power washing, sanding or grinding, can potentially remove decorative details and the protective surface of the masonry resulting in an eroded surface and permanent damage. Abrasively cleaned masonry usually has a rougher surface that can hold additional dirt and be more difficult to clean in the future. Chemical based cleaners can etch, stain, bleach or erode masonry surfaces. Both mechanical and chemical cleaning methods can also make the masonry surfaces more porous and deteriorate mortar joints, allowing for increased moisture penetration.

The HPC encourages:

- Cleaning using the gentlest means possible
- Making sure mortar joints are sound and building is water-tight before water cleaning
- Using water without traces of iron or copper that can discolor masonry

- Conducting water cleaning a minimum of one month before freezing temperatures to minimize the potential for spalling
- Minimizing water pressure to reduce potential etching of masonry surfaces (generally no more than 100 psi)
- Using clean water without excessive salts, acids or minerals that can deposit on masonry surfaces
- Using non-ionic detergent and natural bristle brushes when water soaking is not successful

The HPC discourages:

- Using mechanical cleaning methods including sand blasting, power washing, grinding, sanding, wire brushing
- Using chemical cleaning

In instances where a severe stain or graffiti is present, it might be necessary to use a chemical based cleaner in specific areas. Caution should be taken to test the effects of the proposed cleaner on a discrete area of the building before using it on a principal elevation. It is recommended that the most diluted possible concentration be used to minimize potential damage of the masonry surface. It should be noted that many chemical cleaners are hazardous and require special handling, collecting and appropriate disposal of the chemicals and rinse water.

The HPC encourages:

- Hiring a contractor with specialized knowledge of masonry cleaning when gentler cleaning methods are not successful



The peeling paint, surface delamination and cracking of the stucco surface can promote or be caused by moisture infiltration. Before repairing the stucco, possible sources of moisture infiltration such as deteriorated gutters and downspouts should be investigated. The loose and flaking paint should be removed and cause for peeling determined before repointing.

MASONRY COATING

Water repellent and waterproof coatings are generally applied to prevent water from entering a masonry wall, but tend to be unnecessary on weather-tight historic buildings. Water infiltration through masonry buildings is generally caused by other moisture related problems including open mortar joints and poor or deferred maintenance. In instances where the surface of the masonry has been severely compromised, such as following sandblasting, the use of water repellent coatings might be appropriate.

Water Repellent Coatings, also referred to as “breathable” coatings, keep liquid from penetrating a surface but allow water vapor to escape. Many water repellent coatings are transparent or clear when applied, but might darken or discolor over time.

Waterproof Coatings seal surfaces and prevent liquid water and water vapor from permeating the surface. Generally, waterproof coatings are opaque or pigmented and include bituminous coatings and some elastomeric coatings and paint. Waterproof coatings can trap moisture inside of a wall and can intensify damage. Trapped moisture can freeze, expand and spall masonry surfaces.

The HPC discourages:

- Applying water repellent or waterproof coatings to weather-tight historic masonry
- Applying waterproof coatings on masonry above the surface grade level

MASONRY PAINTING

If the exterior of the masonry surface has been compromised through previous sandblasting, moisture infiltration or the use of harsh chemicals, appropriate painting can provide a degree of protection. Proper application of a water repellent paint can prevent water from penetrating while allowing water vapor to escape. Waterproof or inappropriate paint can trap moisture within a masonry wall. Proper preparation is critical to a successful masonry painting project.

1. Remove loose or flaking paint, mortar and masonry as well as ivy, algae, moss and mildew.
2. Complete items of deferred maintenance including repair of deteriorated gutters and downspouts.
3. Complete repointing and re-caulking as needed.
4. Select a paint color appropriate for the building style. Apply undercoat and paint appropriate for masonry application type. Follow manufacturer’s recommendations for application.

REMOVING PAINT FROM MASONRY

When considering whether to remove paint from a masonry surface, it is important to assess whether stripping is appropriate. In some instances:

- The building might have been meant to be painted; less attractive, softer or more porous bricks or stones might have been painted to provide a water repellent protective layer
- Paint can mask later changes or additions

Reason to consider stripping paint:

- To reduce the long term maintenance requirements associated with repainting
- Paint might have been originally applied to mask other problems such as a dirty building
- If existing paint has failed, it might be necessary to strip it before repainting

Caution should be used since some paints include lead, requiring proper collection and disposal techniques. Signs of failed paint include:

- Paint is badly chalking, flaking or peeling, possibly due to moisture penetration. It is important to find the cause of moisture and repair before repainting.
- If masonry has been “sealed” by excessive layers of paint or by waterproof coatings, the underlying masonry might not be able to “breathe” and dispel the internal moisture and salts. Eventually, pressure from moisture and salts can build up under paint layers and possibly cause the paint to peel and masonry to spall.

If paint is stable, complete paint stripping might not be necessary. However, new paint should be compatible with previously paint layers for best adhesion.

The HPC encourages:

- Consideration about paint removal appropriateness
- Paint removal using the gentlest means possible

HIRING A CONTRACTOR

- Repair, maintenance, installation and cleaning of masonry and stucco can be potentially dangerous work and should be left to professionals
- All masons are not necessarily experienced in all materials; choose a contractor with demonstrated experience in working with historic masonry
- Verify extents of warranty for materials and labor
- Check references, especially from 5 years prior, to understand how well work has held up

STUCCO

Stucco is a relatively inexpensive material that can provide a more finished appearance to rubble stone, brick, or wood framed buildings. It acts as a weather repellent coating, protecting the building from the elements including rain, snow, sunlight and wind, and can moderately increase fire resistance. In most cases, stucco was applied at the time of construction over rubble stone walls or as a design element around the beginning of the twentieth century in revival architecture. It was also applied years after construction to vary to original appearance or as a remodeling material for deteriorating buildings.

STUCCO PROBLEMS

Similar to masonry walls, many stucco failures are caused by water infiltration, and a lack of maintenance can hasten deterioration. Some typical moisture-related deterioration include:

- Rain and precipitation
- Moisture vapor migration from the interior
- Rising damp from the ground
- Leaking plumbing

In addition, stucco failures can be caused by:

- Improper mixture of mortar
- Improper installation including inadequate keying to substrate
- Rotted, warped or inadequately fastened lath to substrate
- Building settlement
- Exposure to the elements

Typically, stucco failures are evident in cracks or bulges in the wall surfaces. The bulges can indicate that the stucco is pulling away from the underlying wall substrate.

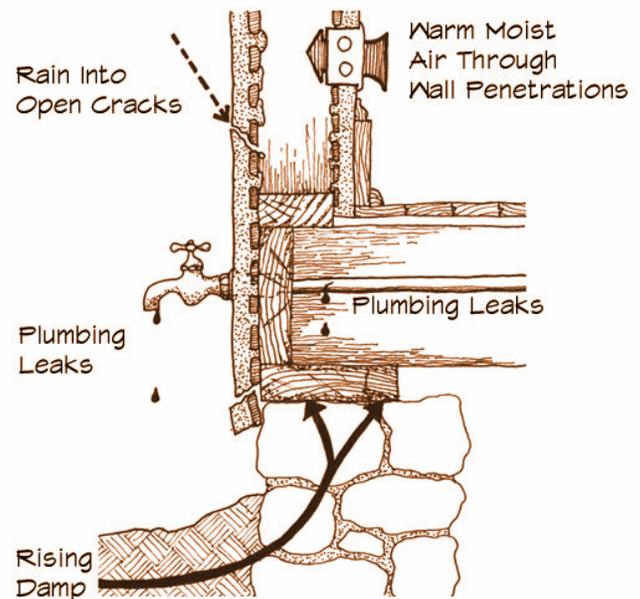
The HPC encourages:

- Repair of deterioration cause before completion of stucco work such as gutter and downspout repair
- Proper use and maintenance of flashing, drip edges and exterior drainage systems
- Installation of a vapor barrier between interior and exterior stucco
- Ventilation of moisture intensive space including bathrooms, kitchens and laundry rooms
- Installation of proper stucco termination above ground level

STUCCO COMPOSITION

The components of stucco are similar to pointing mortar and include lime, Portland cement, sand, water, and possibly animal hair or straw as a binder. Stucco can be applied to either a masonry wall or a wood framed wall, with Portland cement based stucco more common on wood framed wall installations.

Similar to mortar, lime based stucco is more “flexible” while Portland based stucco is harder. When repairing existing stucco, it is important to test each situation to determine and match the historic stucco composition. Similar to pointing mortar, if stucco patches are too hard, they could cause additional damage to the adjacent historic stucco surfaces or encourage the formation of cracks that can be an avenue for water migration into the wall surface.



Stucco walls are affected by similar sources of moisture infiltration as stone and brick walls. Trapped moisture within a wall or floor framing system can lead to wood rot, mold and insect damage.

Rain and Precipitation can enter stucco walls through damaged or cracked surfaces and crevices with adjacent materials including window and door frames.

Rising Damp is the migration of moisture from the soil into the building structure through capillary action. The soil adjacent to the foundation can become saturated through improper drainage from gutters and downspouts and vegetation planted adjacent to the foundation.

Plumbing Leaks include piping as well as bathroom fixtures, kitchen and laundry appliances.

Condensation occurs when warm moist air from bathrooms, kitchens and laundry facilities comes in contact with cold surfaces and changes to water droplets.



The irregularity of the stucco surface suggests the underlying wall is constructed of uncoursed fieldstone and any future repairs should match the texture.

PATCHING STUCCO

Successful patching of stucco surfaces generally requires the services of a skilled craftsman. Matching of uncoated or unpainted stucco is particularly challenging given the difficulty associated with matching mortar colors, textures and a weathered finish.

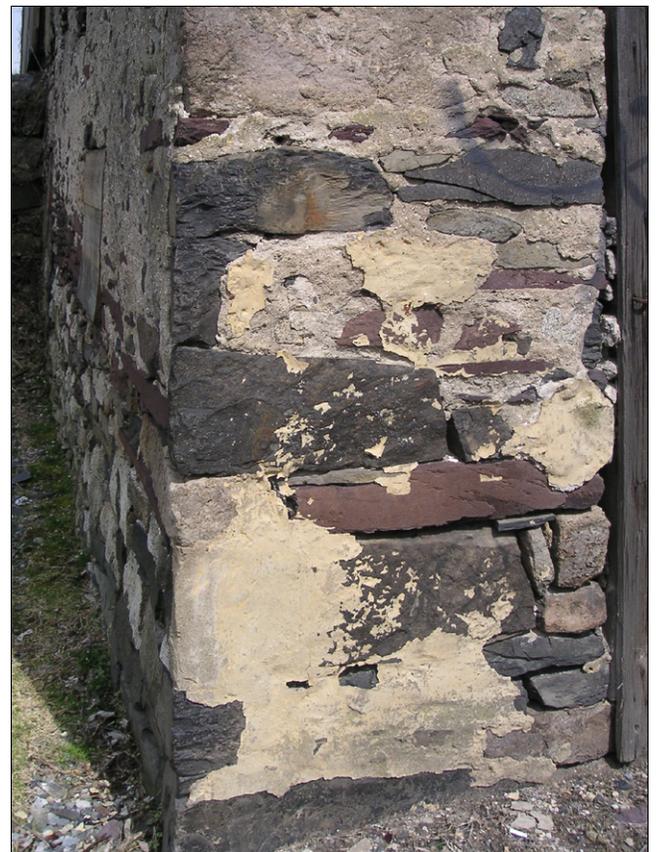
Before beginning any patching work, areas of deterioration should be tested to determine the extent, and a plan established to complete the work.

In general, hairline cracks can be filled with a thin slurry coat of the finish coat ingredients, while larger cracks need to be cut-out and prepared for a more extensive repair. Similarly, bulging wall surfaces need to be cut-out to sound surfaces. To test the extent of deterioration at bulging wall surfaces, press on the wall surface to identify the areas of movement or sponginess. Unsound or un-keyed stucco will also sound hollow when gently tapped with a wood mallet. For the best appearance, the area to be patched should be squared off with a butt joint when possible, and terminated at a building joint or change in materials such as a window or door frame.

When applying stucco directly to a masonry wall, it is important to rake out the masonry joints to a sufficient depth to allow the stucco mortar to be bonded to the masonry and keyed into the joint. Historically, when stucco was applied to a wood framed building it was installed over spaced wood lath and more recently on metal lath. The lath should be securely attached to the substrate and the use of metal lath at masonry buildings is discouraged since it can be prone to rust and eventually spalling of the stucco surface.

Similar to repointing mortar, stucco should be applied in fair weather conditions, avoiding extreme heat, sun and freezing temperatures. Historically, stucco was applied in three coats, scratch, brown and finish coats. Each coat is approximately ¼” thick, matching historic stucco. To ensure bonding between the various coats, the scratch and brown coats are hatched to provide a key to hold the subsequent coat. For the best adhesion, it is important to mix only as much stucco as can be installed in about one hour. Partially set mortar will not bond properly to wall surfaces and should be discarded. The coats should also be permitted to dry between applications, generally 24 to 72 hours for each coat, before the application of subsequent coats. The final appearance should duplicate the old as closely as possible in strength, composition, color and texture.

Many stucco buildings have been painted and will require repainting after repairs have been made. When selecting paint, it is important that the new paint is compatible with earlier paint and stucco material and applied following the manufacturer’s recommendations.



The stucco surface and some of the pointing mortar have worn off of the lower portion of this uncoursed fieldstone wall increasing the possibility of moisture infiltration and further deterioration.

PREVENTING MASONRY AND STUCCO DAMAGE

Exterior masonry and stucco provides a strong, durable and attractive appearance with relatively low maintenance. By following some simple steps, costly damage to exterior walls can be minimized.

The HPC encourages:

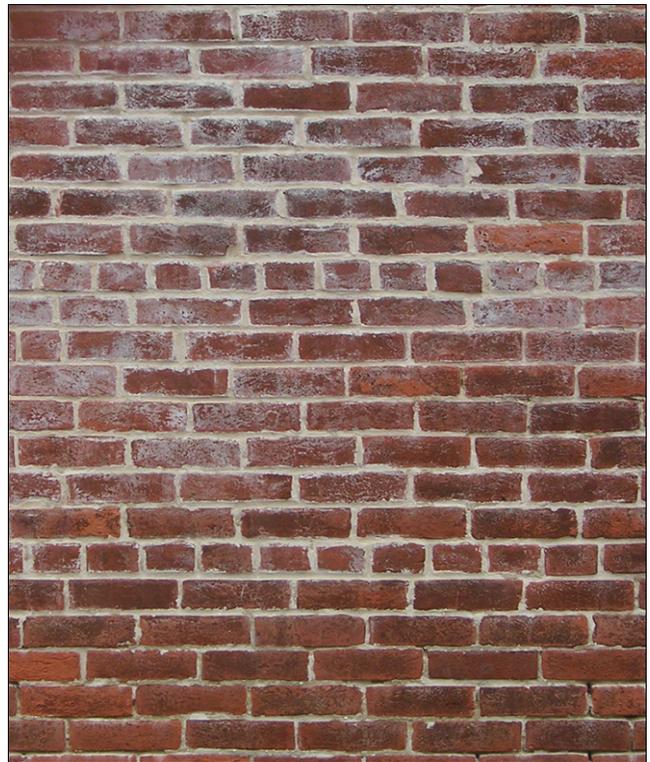
- Repointing of open, cracked or deteriorated mortar joints regularly with appropriately soft mortar with a high lime content
- Matching the composition and appearance of historic mortar and tooling
- Repair or replacement of deteriorated or missing masonry with similar units on an as-needed basis
- Matching the composition, color, texture and appearance of historic stucco
- Regular maintenance and cleaning of all gutters, downspouts, flashing and other water run-off systems
- Correcting problems where the masonry meets the ground including rising damp, splash-back and standing water adjacent to the foundation
- Removal of water entrapping vegetation from or near masonry walls
- Cleaning using the gentlest means possible

The HPC discourages:

- Installing hard, Portland cement based mortar
- Using power tools to remove mortar that can damage historic masonry
- Ivy moss or other plants growing on masonry
- Salt to melt snow adjacent to masonry walls
- Cleaning masonry with harsh chemicals, sand blasting, power washing, grinders or metal brushes
- Installing waterproof or water repellent coatings except in extreme cases



Rusticated concrete block was a popular building material of the early twentieth century.



Efflorescence is clearly visible on the brick wall. It is typically evident as a white powdery substance on a masonry surface. The ongoing presence of salts can increase the propensity of crystallization and masonry spalling.



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Dominique M. Hawkins, AIA, of Preservation Design Partnership in Philadelphia, PA, prepared this publication.



**GUIDELINES FOR
WINDOWS & DOORS**



Township of Hopewell Historic Preservation Commission

GUIDELINES FOR WOOD WINDOWS & DOORS



Historic residences often have smaller attic windows. This one has an exterior wood storm window and lowered shutters.

PURPOSE

These *Guidelines* were prepared to assist property owners with information when considering the repair, replacement or installation of wood windows and doors. They are not intended to replace consultation with qualified architects, contractors and the Historic Preservation Commission (HPC). The HPC will be happy to provide consultation and assistance with materials, free of charge.

These *Guidelines* were developed in conjunction with Hopewell Township's Historic Preservation Commission (HPC). The HPC reviews Certificate of Appropriateness (COA) applications for proposed exterior alterations to properties locally designated as Historic Landmarks or within a local Historic District. The applicant is responsible for complying with the provisions of the Zoning and Building Codes at the time of application. The applicant must obtain a Certificate of Appropriateness (COA) as well as all necessary permits prior to proceeding with any work. For more information, or to obtain permit applications, please call the COA Administrator at (609) 737-0612, ext. 643.

Please review this information during the early stages of planning your project. Familiarity with this material can assist in moving a project quickly through the approval process, saving applicants both time and money. Additional *Guidelines* addressing other historic building topics are available at the Township Administration Building and on its web site at www.hopewelltpw.org.

WINDOWS AND DOORS

- Define the character of a building and streetscape
- Act as interior and exterior building features
- Typically comprise approximately one quarter of the surface area of exterior walls
- Can identify architectural style
- Can retain connections to the past
- Help define the architectural building period
- Can display craftsmanship and durable construction

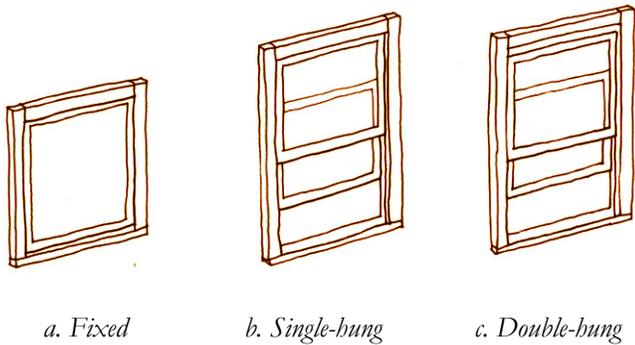


The varying heights of these round-headed tripartite windows help to emphasize the steepness of the roof pitch at the intersecting gable, reinforcing the Italianate style.

COMMON WINDOW TYPES

All of the identified window types can have different muntin patterns or configurations. Muntin patterns are defined in terms of the number of panes or lights. For example, a 6/1 double-hung window indicates there are 6 panes in the upper sash and 1 pane in the lower sash.

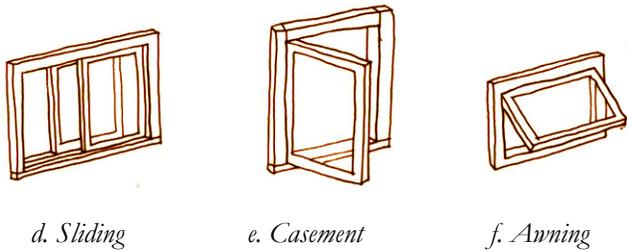
- a. **Fixed:** Non-operable framed glazing
- b. **Single-hung:** Fixed upper sash above a vertically rising lower sash
- c. **Double-hung:** Two sashes that can be raised and lowered vertically
- d. **Sliding:** Either a fixed panel with a horizontally sliding sash or overlapping horizontally sliding sash
- e. **Casement:** Hinged on one side and swinging in or out
- f. **Awning:** Hinged at the top and projecting out at an angle
- g. **Hopper:** Hinged at the bottom and projecting in at an angle
- h. **Vertical pivot:** Pivots vertically along a central axis
- i. **Horizontal pivot:** Pivots horizontally along a central axis



a. Fixed

b. Single-hung

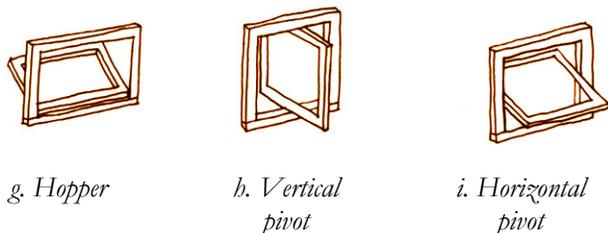
c. Double-hung



d. Sliding

e. Casement

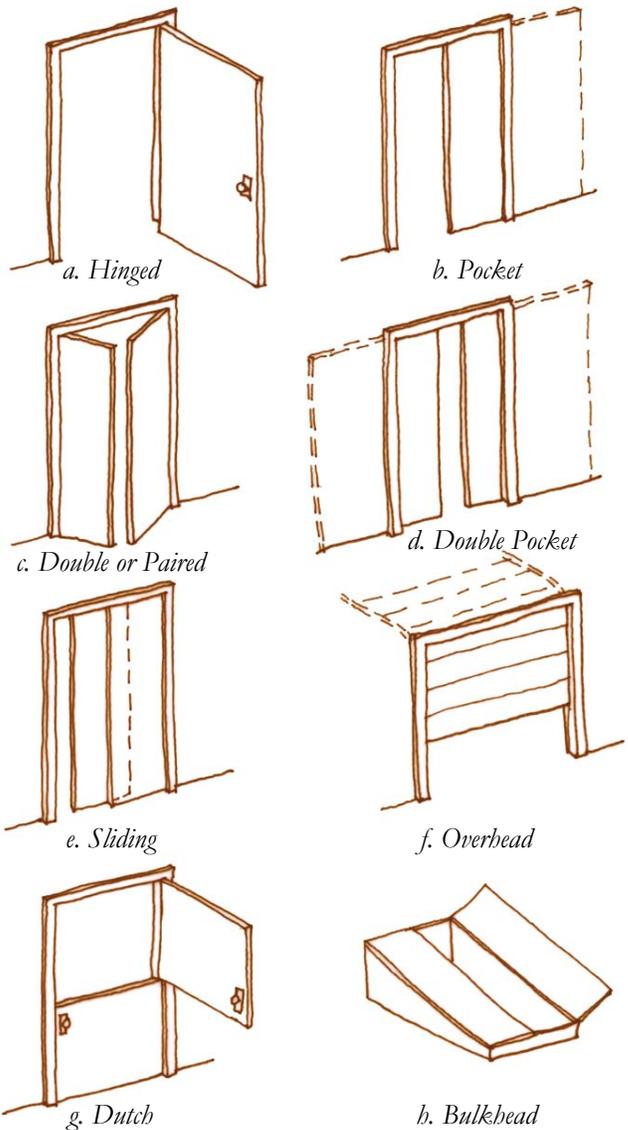
f. Awning



g. Hopper

h. Vertical pivot

i. Horizontal pivot



a. Hinged

b. Pocket

c. Double or Paired

d. Double Pocket

e. Sliding

f. Overhead

g. Dutch

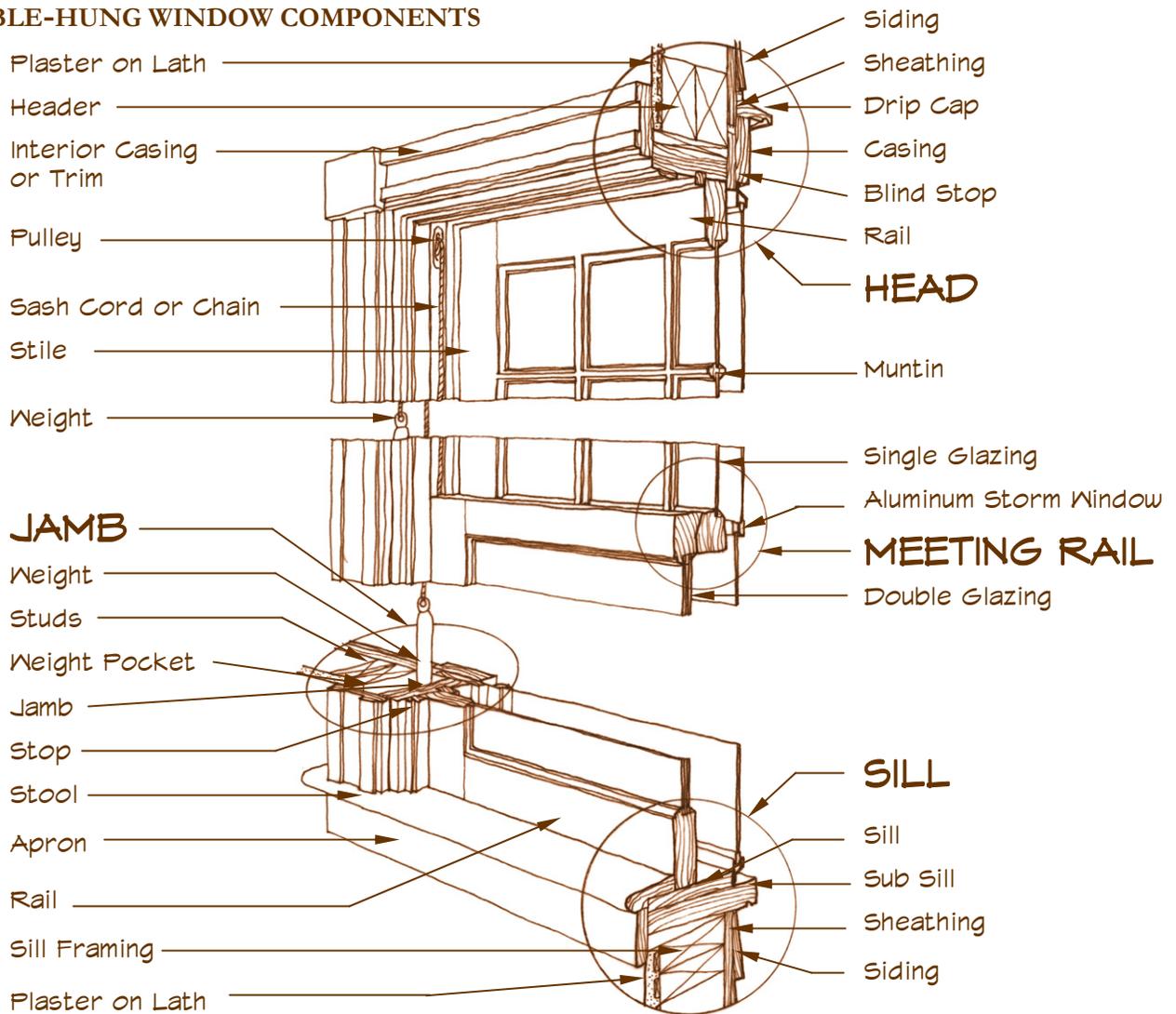
h. Bulkhead

COMMON DOOR TYPES

All of the identified door types can have different patterns or configurations.

- a. **Hinged:** Swings to close at opposite jamb
- b. **Pocket:** Slides into a concealed wall recess
- c. **Double or Paired:** A pair of swinging doors that close an opening by meeting in the middle
- d. **Double Pocket:** A pair of doors that slide into wall recesses at each jamb
- e. **Sliding:** Either two doors or one fixed panel and one sliding
- f. **Overhead:** Horizontal panels that slide on tracks opening upwards
- g. **Dutch:** Upper and lower parts operate separately
- h. **Bulkhead:** Sloped hatchway opening to cellar stair

DOUBLE-HUNG WINDOW COMPONENTS



WINDOW CONFIGURATIONS

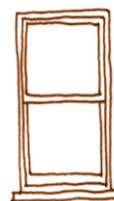
Different window configurations are appropriate for each architectural period or style. Altering the window type, style, shape, material, size, component dimension, muntin pattern or location can dramatically alter the appearance of the building.

The HPC encourages:

- Utilizing the historically appropriate window configuration
- Utilizing the exterior muntin pattern, profile and size appropriate for the historic period
- Installing true divided-light windows rather than snap-in muntin grids for multi-paned appearance

The HPC discourages:

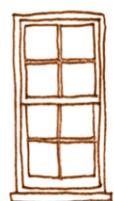
- Use of internal muntins between glazing layers
- Use of interior muntins



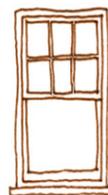
1/1 Window



6/6 Window



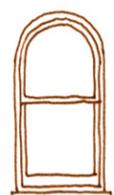
4/4 Window



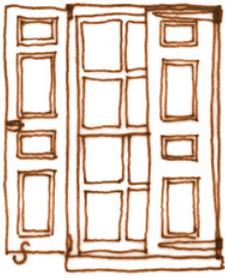
6/1 Window



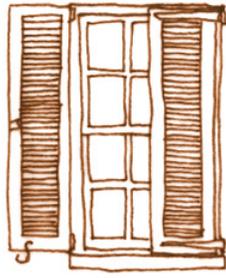
2/2 Window
with arched head



1/1 Window
with round head



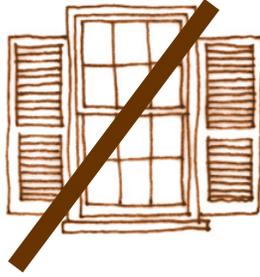
Six-over-six double-hung window with 4-panel shutters



Six-over-six double-hung window with lowered shutters



*The 2-panel shutters do not fit the arched opening
Not Recommended*



*The lowered shutters are the incorrect size for the window
Not Recommended*

SHUTTERS

Historically, exterior shutters were used as shielding devices. Paneled shutters were typically located on the ground floor to provide protection and louvered shutters at upper floors to regulate light and air. Shutters were not used on all historic buildings or in all locations. It is often possible to determine if shutters previously existed by looking for hardware such as hinges or tie-backs or evidence of their attachment.

The HPC encourages:

- Shutters where they existed historically
- Operable wood shutters with appropriate hardware
- Shutters of the appropriate style for the house and location
- Appropriately sized and shaped shutters for the window opening, fitted to cover the window when closed
- Refurbished historic shutter hardware

The HPC discourages:

- Installing shutters where they did not exist historically
- Screwing or nailing shutters to the face of the building
- Installing vinyl or aluminum shutters
- Inappropriately sized or shaped shutters



Pointed arch windows are, also referred to as lancet windows, are a typical feature of Gothic Revival architecture. This Harbourton Baptist Church example includes wood louvered shutters that are appropriately sized and shaped for the window opening with operable hardware. Since replacement windows and shutters of similar configuration would undoubtedly require costly custom fabrication, regular maintenance and repainting are strongly encouraged.



Despite the tie-backs, these vinyl shutters were screwed directly to the brick wall. The shutters are not proportionately sized to the window and given the close window spacing it is unlikely that there were shutters historically.



The window sill and jamb have peeling paint and some checking or splitting.



Regular repainting of these unusual four-over-one windows will extend their life span, postponing costly replacement.

HISTORIC WINDOW PROBLEM SOLVING

Property owners generally do not notice their windows until a problem occurs. Typical concerns include operation, reducing air infiltration, maintenance and improving the appearance.

Generally, the appearance of a window that has not been properly maintained can seem significantly worse than its actual condition. There is no need to replace an entire window or all windows because of a deteriorated component, typically the sill or bottom rail.

In many instances, selective repair or replacement of damaged parts, and the implementation of a regular maintenance program is all that is required. It is generally possible to upgrade windows in fair or good condition relatively economically. Full window replacement is rarely necessary and should be avoided when possible.

To improve operation

- Verify that sash cords and weights are operational
- Remove built-up paint at jambs
- Repair or replace deteriorated components such as parting beads

To reduce air infiltration

- Install snug weather-stripping between all moving parts (quality metal weather-stripping can last 20 years)
- Replace broken glass (glazing)
- Re-caulk perimeter joints
- Remove and replace missing glazing putty
- Add sash locks to tighten windows
- Add an interior or exterior storm sash (installing a secondary glazing system can achieve similar R-values to a new thermal window)
- Insulate sash pockets

To reduce solar heat gain or heat loss

- Install interior or exterior shutters
- Install interior blinds or curtains
- Plant deciduous trees at south and west elevations to block summer sun and allow in winter sun
- Install UV window shades

Maintenance

- Regular review and repair
- Re-paint, particularly horizontal elements



This entrance door features a transom window and is flanked by sidelights. The storm door has simple detailing with a large single light allowing most of the historic door to remain visible.

WOOD DOORS

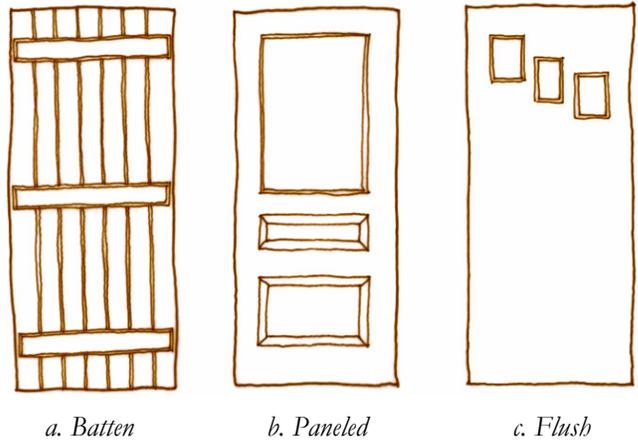
Entrance doors serve an important role in regulating the passage of people, light and air into a building as well as providing a threshold separating the exterior and interior. Historically most doors were wood and varied stylistically based upon the building design, providing a grand formal appearance or one that is more informal and welcoming.

Single pieces of wood are rarely available in large enough sizes to fill an entire opening so doors are typically constructed with smaller elements. In some of the earliest examples doors were constructed of vertical boards nailed to horizontal boards, similar to many doors found at barns and secondary buildings. By the middle of the eighteenth century, more elaborate paneled doors were becoming more common and now represent the most common door type in American houses. Paneled doors could be constructed in a variety of configurations to reflect the style of the building, with many later doors including glazed panels. Flush doors appear to be constructed of a single piece of wood but are in fact of veneered construction and are generally inappropriate for historic buildings.

WOOD DOOR TYPES

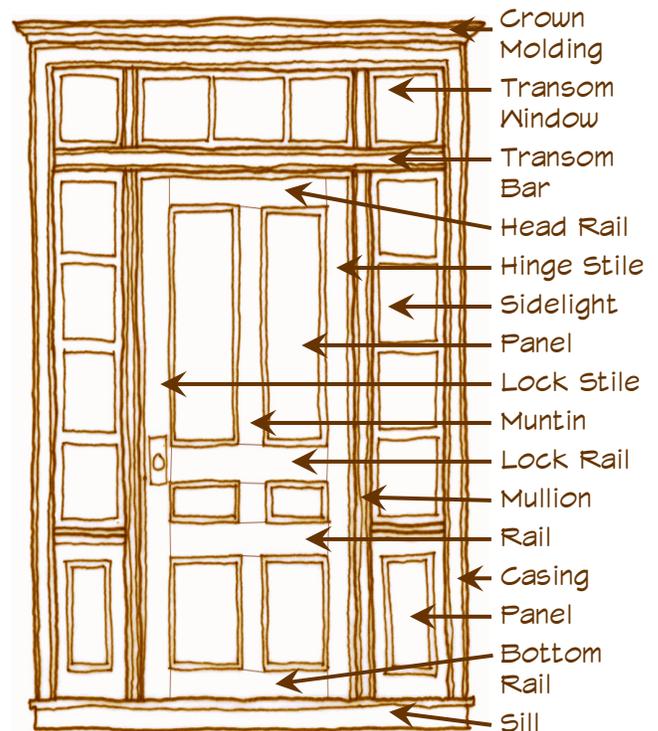
All of the identified door types can have glazing installed in different configurations.

- a. Batten:** Full height boards attached edge to edge with horizontal boards nailed to the verticals
- b. Paneled:** A frame of solid wood parts with either glass or wood panels
- c. Flush:** A single plain surface on its face, typically wood veneer



PANELED WOOD DOOR COMPONENTS

In Hopewell Township paneled wood doors were most common for historic buildings. The diagram below identifies common wood paneled door components.



HISTORIC DOOR PROBLEM SOLVING

Since doors tend to be one of the most utilized elements on the exterior of a building, they are more susceptible to deterioration from wear or damage and generally require more regular maintenance such as painting or varnishing. If deterioration occurs, selective repair or replacement of damaged parts, and the implementation of a regular maintenance program is all that is required to retain a historic door.



Wood checking and peeling paint visible. Minor repair and maintenance can prolong the serviceable life of this historic door.

To improve operation

- Verify that doors fit properly in their frames and joints are tight
- Verify that hardware is operational particularly that hinges are tight and hinge pins not worn
- Remove built-up paint at door and jambs
- Repair or replace deteriorated components such as trim and stops

To reduce air infiltration

- Install weather stripping between door and frame
- Replace broken glass (glazing) and remove and replace missing glazing putty
- Re-caulk perimeter joints around frame
- Install a storm door

Maintenance

- Regular review and repair
- Re-paint, particularly horizontal elements

WEATHER STRIPPING AND CAULK FOR WINDOWS AND DOORS

Proper application of weather stripping and caulk around windows and doors can greatly reduce air infiltration and drafts. When selecting weather stripping or caulk it is important to choose the material appropriate for each location and follow manufacturer's installation recommendations for the best results.

Because weather stripping is used between the moving parts of windows and doors, it is highly susceptible to damage and can become loose, bent or torn. It is important to inspect weather stripping on a regular basis and replace it as needed. For high use installations such as entrance doors, it may be beneficial to install more durable weather stripping such as spring metal or felt.

Recommended locations for weather stripping:

- Behind window sash track
- At perimeter of doors and windows and between window meeting rails

The installation of caulk or other sealants should occur throughout the exterior of the building. Locations include where two dissimilar materials meet; where expansion and contraction occur; or where materials are joined together. In some instances caulks and sealants can be sanded and/or painted to minimize their visual appearance. It is important to select the appropriate type for each location and exercise care when removing old caulk that might contain lead.

Recommended locations for caulk:

- Between window or door frame and adjacent wall
- Between abutting materials such as corner boards and siding, porch and wall surface
- Between dissimilar materials such as masonry and wood, flashing and wall surface

DEFINITIONS:

Weather Stripping: A narrow compressible band used between the edge of a window or door and the jambs, sill, head and meeting rail to seal against air and water infiltration; of various materials including spring metal, felt, plastic foam and wood with rubber edging.

Caulk: Flexible sealant material used to close joints between materials; of various materials including tar, oakum, lead, putty, and modern elastomerics such as silicone and polyurethane.

STORM WINDOWS

There are several types of storm windows available for both interior and exterior installation, some of which include screen inserts. Storm sash should conceal as little of the historic window as possible and should be selected to complement each window type.

The HPC encourages:

- Interior storms to minimize the change to the exterior appearance
- Retaining wood storm frames rather than replacement with aluminum or vinyl. Wood storm windows can be custom made to fit any size or shaped opening, and lose less heat through the frame than aluminum
- Matching the shape of the opening
- Aligning the divisions of the storm window with the divisions of the window, revealing as much of the historic window as possible
- Utilizing glass rather than Plexiglas, which can discolor and alligator in appearance
- Painting the storm window frame to match the window trim



This wood storm window complements the original window and provides good insulation from drafts. It is the same size and shape as the window opening and the horizontal divider aligns with the meeting rail.



Operable louvered shutters are historically located at the upper floors and paneled shutters at the first floor. The storm windows match the color of the window trim and the meeting rails align in both the six-over-six and nine-over-six configurations, minimizing the visual impact.

- Minimizing damage to historic windows and frames during the installation of storm windows
- Caulking and weather-stripping the storm window in accordance with manufacturer's instructions allowing for exterior drainage at the sill
- Installing removable storm sash to facilitate maintenance of historic window

The HPC discourages:

- Stock storm units that require in-fill panels within an existing window opening
- Triple track exterior aluminum storm sash at visible street elevations
- Fixed storm sash

STORM AND SCREEN DOORS

There are several types of storm doors available, some of which include screen inserts. Similar to storm windows, storm or screen doors should conceal as little of the historic door as possible and should be selected to complement the door configuration. This generally means selecting a storm or screen door that has horizontal and vertical rails that coincide with the door behind.

The most recommended option for a storm door is a simple wood storm door with a single large glazed opening with as little detail or ornamentation as possible. If more elaborate detailing is desired, the style and level of detailing should complement the style of the house; for example, a storm door with Victorian gingerbread would not be appropriate for a Colonial Revival house.



This wood storm door is simple in construction with minimal detailing and a single large glazed opening. Because the door is wood rather than aluminum, it could be painted to match the historic paneled door, minimizing the visual impact on the historic character.



Bare metal finished doors such as this aluminum example are generally not appropriate for historic buildings. This example includes a thick horizontal division that runs across the center of the lower window and decorative grillwork that makes the door more visually prominent.

The HPC encourages:

- Wood storm doors rather than aluminum or vinyl – wood storm doors can be custom made to fit any size or shaped opening, and lose less heat through the frame than aluminum
- Matching the shape of the opening
- Aligning the divisions of the storm door with the divisions of the door, revealing as much of the historic door as possible
- Utilizing glass rather than Plexiglas, which can discolor and alligator in appearance
- Painting the storm door frame to match the door
- Minimizing damage to historic doors and frames during the installation of storm door
- Caulking and weather-stripping the storm door in accordance with manufacturer's instructions allowing for exterior drainage at the sill

The HPC discourages:

- Stock storm units that require in-fill panels or applied wood trim within an existing door opening
- Metal finish aluminum storm doors at visible street elevations
- Decorative detailing that does not complement the historic character of the house



Replacement of large or unusually shaped windows can be costly. Maintenance of existing windows is encouraged.

COMPARING WINDOW AND DOOR REPAIR AND REPLACEMENT

When considering repair and retention of existing windows and doors versus installation of replacement windows and doors, the HPC generally encourages applicants to retain the existing elements. However, the HPC does recognize that it is sometimes necessary to replace window or doors components or an entire unit because of extensive deterioration.

The HPC discourages:

- Replacing a window or door component or unit if repair and maintenance will improve its performance and preserve historic elements

It is important to remember that because a portion of the window or door is deteriorated, replacement of the entire component or unit might not be necessary. A simple means of testing wood window deterioration is to stab the element with an awl or ice pick. Stab the element perpendicularly and measure the penetration depth and damp wood at an angle for the type of splintering.

- If the penetration is less than ¼ inch, the component does not need replacement
- If the penetration is more than ½ inch, the component might need replacement
- If long splinters are produced, the component does not need replacement
- If short sections broken across the grain are produced, the component might need replacement

When evaluating window repair or replacement, the following guidelines can be helpful:

- 1. Perform routine maintenance:** Replace broken or missing components such as trim, glazing or sash cords. Verify that caulking, glazing putty and weather-stripping is securely applied, and repaint.
- 2. Treat or repair deteriorated components:** At the earlier stages of wood deterioration, it is possible to complete in-place treatments that do not necessitate component replacement. This includes treating wood for insects or fungus, epoxy consolidation, applying putty at holes and cracks, and painting.
- 3. Replace Deteriorated Components:** Replace either the deteriorated portion of the component with a “Dutchman” or the entire component if the majority is deteriorated. A Dutchman is a repair with a piece of the same material in a sharp-edged mortise. The replacement pieces should match the original in design, shape, profile, size, material and texture. New sills are usually easily installed while complete sash replacement might solve problems of broken muntins and deteriorated rails.
- 4. Replace Window or Door:** If the majority of the window or door components are deteriorated or missing and in need of replacement, replacement of the unit might be warranted.

IF REPLACEMENTS ARE NECESSARY

The HPC encourages:

- Replacing only components, windows or doors that are deteriorated beyond repair
- Relocating historic windows or doors to the publicly visible elevations and installing replacement windows or doors at less visible areas
- Matching the original size, shape, operation, muntin pattern, profiles and detailing to the greatest extent possible
- Selecting true divided-light windows or doors
- Re-using serviceable historic hardware or components
- Choosing window or door style or configuration based upon historical or physical documentation

The HPC discourages:

- Decreasing window or door size or shape with in-fill to allow for installation of stock unit size
- Increasing window or door sizes or altering the shape to allow for picture or bay windows
- New openings at publicly visible elevations

WINDOW MATERIALS PAST AND PRESENT

Wood windows were historically manufactured from durable, close, straight-grain hardwood of a quality uncommon in today's market. The quality of the historic materials and relative ease for repairs allows many well-maintained old windows to survive from the nineteenth century or earlier.

Replacement windows and their components tend to have significantly shorter life spans than historic wood windows. Selecting replacement windows is further complicated by manufacturers who tend to offer various grades of windows, with varying types and qualities of materials and warranties.

Today, lower cost wood windows are typically made from new growth timber, which is much softer and more susceptible to deterioration than hardwoods of the past. Vinyl and PVC materials, now common for replacement windows, breakdown in ultraviolet light, and have a life expectancy of approximately twenty-five years. Because of the great variety of finishes for aluminum windows, they continue to be tested to determine projected life spans.

A greater problem with replacement windows than the construction materials used in the frame and sash is the types and quality of the glazing, seals, fabrication and installation.

Double glazing or insulated glass, used in most new window systems, is made up of an inner and outer pane of glass with a sealed air space in between. The air space is typically filled with argon gas with a perimeter seal. This perimeter seal can fail in as few as ten years, resulting in condensation between the glass layers, necessitating replacement. Many of the gaskets and seals that hold the glass in place also have a limited life span and deteriorate in ultraviolet light.

Significant problems with replacement windows also result from poor manufacturing or installation. Twisted or crooked frames can make windows difficult to operate. Open joints allow air and water infiltration into the wall cavity or building interior.

The HPC encourages:

- Installing quality wood windows when replacement is deemed necessary
- Review of various grades of windows offered by manufacturers
- Utilizing quality materials throughout the installation process

- Understanding the limits of the warranties for all components and associated labor
- Selecting a reputable manufacturer and installer who is likely to remain in business and respond if there is a future problem

MAINTAINING REPLACEMENT WINDOWS

One of the selling points of replacement windows is that they do not require maintenance. With the relatively short life expectancy of many of the materials and components, this is usually an optimistic viewpoint.

As joints or seals in replacement windows deteriorate, openings can be formed that allow air and water to enter into the window frame, wall cavity, and/or building interior, causing additional damage. Repair of these openings typically requires replacement of the deteriorated parts. This can present a problem if the manufacturer has modified their designs or is no longer in business, necessitating custom fabrication of deteriorated elements or replacement of the window.

As previously described, the double-glazing has similar problems over time with the deterioration of the perimeter seal. In addition, if the glazing unit is cracked or broken, it will require full replacement. This is further complicated when the double-glazing includes an internal muntin grid.

By contrast, a good carpenter can generally repair a historic wood window with single pane glazing.

REPLACEMENT WINDOW COSTS

- Labor to remove and disposal fee for old windows
- Purchase price and delivery of new windows
- Labor and materials to modify existing frames for new windows
- Labor to install new windows
- Life-cycle costs associated with more frequent replacement of deteriorated components

REPLACEMENT WINDOW QUALITY

Reputable lumberyards typically provide a better selection and higher quality replacement window options than companies that advertise with bulk mailings or flyers. Each manufacturer also provides various grades of replacement window options. Manufacturer's information can generally be found on their web sites or in catalogues.

WINDOW REPAIR AND REPLACEMENT OPTIONS

Repair or replacement of existing components:

Deteriorated sills, sash and muntins are repairable by craftsmen with wood consolidant or replacement parts, retaining original fabric and function. In-kind replacement sash and sills can be custom-made to replace deteriorated sections if necessary.

Tilt-sash package: Some manufacturers offer replacement jamb liners and sash for installation within existing window frames. The system allows installation of new thermal sash of various muntin patterns within existing frames that can tilt to facilitate cleaning.

The benefits of the tilt-sash package:

- Original muntin pattern can be duplicated
- Maintains the original surround and opening
- Thermal glazing provides greater energy efficiency

The negatives of the tilt-sash package:

- Historic sash is removed
- Modification of the jambs is necessary
- Out-of-plumb openings can be difficult to fit
- Perimeter seals might not be tight

Frame and sash replacement unit: A complete frame with pre-installed sash of various muntin patterns for installation within an existing window frame opening.

The benefits of the frame and sash replacement unit:

- Manufactured as a unit to be weather tight
- Original muntin pattern can be duplicated
- Thermal glazing provides greater energy efficiency

The negatives of the frame and sash replacement unit:

- Historic sash is removed and frame modified
- The size of the window sash and glass openings are reduced due to the new frame within the old frame
- In-fill might be required for non-standard sizes
- Alteration of built-in surrounds might be required
- Both frames and sills typically visible at exterior



This half-round window features a radiating leaded glass pattern



Some windows, such as this Victorian stained glass window, are unique features of residences that would be difficult and costly to duplicate or replace. Proper maintenance is strongly encouraged.



This project has been financed in part with Federal funds from the National Park Service, U.S. Department of the Interior, and administered by the New Jersey Department of Environmental Protection, Historic Preservation Office. The contents and opinions do not necessarily reflect the views or policies of the U.S. Department of the Interior, nor does the mention of trade names or commercial products constitute endorsement or recommendation by the Department of the Interior.

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Dominique M. Hawkins, AIA, of Preservation Design Partnership in Philadelphia, PA, prepared this publication.



GUIDELINES FOR PORCHES



Township of Hopewell Historic Preservation Commission

GUIDELINES FOR PORCHES



A front porch can be stately and provide a gracious transition into a building.

These *Guidelines* were developed in conjunction with Hopewell Township's Historic Preservation Commission (HPC). The HPC reviews Certificate of Appropriateness (COA) applications for proposed exterior alterations to properties locally designated as Historic Landmarks or within a local Historic District. The applicant is responsible for complying with the provisions of the Zoning and Building Codes at the time of application. The applicant must obtain a Certificate of Appropriateness (COA) as well as all necessary permits prior to proceeding with any work. For more information, or to obtain permit applications, please call the COA Administrator at (609) 737-0612, ext. 643.

Please review this information during the early stages of planning your project. Familiarity with this material can assist in moving a project quickly through the approval process, saving applicants both time and money. Additional *Guidelines* addressing other historic building topics are available at the Township Administration Building and on its web site at www.hopewelltpw.org.

PURPOSE

These *Guidelines* were prepared to assist property owners with information when considering the repair, replacement or installation of porches. They are not intended to replace consultation with qualified architects, contractors and the Historic Preservation Commission (HPC). The HPC will be happy to provide consultation and assistance with materials, free of charge.



Gingerbread brackets are appropriate on Victorian house porches.

PORCHES

The rich architectural variety of Hopewell Township is distinguished by its collection of porches. Historically, porches were an outside room where residents could find a sheltered transition into their homes, exterior living space, and a place to meet and converse with neighbors. When they were constructed, the form, details and decorative elements were often intended to complement the style of the house.

Porches remain one of the most visible house elements and play a significant role in its appearance and that of the streetscape. They can act as an extension of a home providing a welcoming feeling for visitors. Unfortunately porches today are often one of the most altered components of a building frequently because they are not properly maintained or they are viewed as potentially enclosable indoor space.



PORCH CHECKLIST

- **Roof** – Verify roofing material is secure, flashing is intact, and there is no ponding
- **Lintel** – Verify paint surface is intact, especially behind gutter
- **Porch ceiling** – Check for dampness indicating roofing or flashing problem
- **Gutter and downspout** – Verify they are secure; clear leaves and other debris
- **Post** (Column if round) – Check base for rot and that paint surface is intact
- **Balustrade:** top rail, bottom rail, balusters, newel post – Verify elements are secure and that paint film is intact
- **Apron** – Check substructure for water or insect damage
- **Porch floor** – Verify water is draining off surface
- **Porch steps** – Check base for rot and that paint surface is intact

MAINTAINING HISTORIC PORCHES

Because of the importance porches play in the perception of historic buildings and streetscapes, original materials and details should be preserved as long as possible. Typically areas covered by a porch roof tend to require less maintenance; however, steps, railings, and roofs are usually exposed to the weather and might require additional maintenance.

One of the best ways to preserve wood porch features is regular painting. If a component is deteriorating, repair or replacement in kind is recommended as part of the porch's regular maintenance.

The HPC encourages:

1. Identifying deteriorated elements
2. Finding and correcting sources of deteriorated elements, such as deteriorated, cracked, blocked, inappropriately hung, broken or missing gutters or downspouts
3. Replacing only those parts which can not be repaired – in some instances, such as columns and posts, the base can be replaced without replacing the entire column or post at a fraction of the cost
4. Replacing missing or deteriorated materials with similar new materials, avoiding replacement of a wood railing with a metal or vinyl railing system

The HPC encourages:

- Repairing damaged elements using standard repair techniques for that material (Refer to the *Guideline* brochures appropriate for each material) and restoring the porch to its original historic appearance
- Replacing only the original elements that can not be repaired using elements of the same material, size, profile and other visual characteristics
- If a substantial portion of the porch is deteriorated and cannot be repaired or replicated, or if a porch is missing, creating a simplified design using stock lumber and moldings that convey similar visual characteristics as the original porch, duplicating the dimensions and materials but not necessarily the detailing

PORCH REPAIR INFORMATION

Since many of the components of porches are discussed in depth in other *Guideline* brochures, it might be helpful to consult the following information to address specific repair needs:

- *Guidelines for Exterior Woodwork*
- *Guidelines for Roofing*
- *Guidelines for Masonry & Stucco*

GUIDELINES FOR NEW PORCHES

There are times when property owners might consider the construction of a new porch. This can occur when a previous porch is reconstructed; a new porch is added onto an existing house or is part of an addition; or when a new residence is erected. If considering the construction of a new porch, the HPC recommends the following general guidelines:

- New porches are encouraged on streets where porches are common
- At existing buildings, new construction should not damage, destroy, conceal or negatively affect existing historic material and features
- On additions, porches should be simple in design and relate to the existing building
- Side and rear elevation porches are typically simpler in design than front elevation porches
- On new buildings, porches should visually relate to the proposed building in a manner similar to historic porches on neighboring buildings
- Consider the size, shape, scale, massing, form, materials, and color of the design and its appropriateness to the house and streetscape
- Most porches in Hopewell Township were historically made of wood; stone or brick porches are appropriate only on masonry buildings

LOOKING FOR EVIDENCE OF PRIOR PORCHES

It is important that documentation be found when replacing a missing porch. This can be physical evidence that a porch was present or documentation that shows or describes a porch.

- Look for shadows on the wall or trim from roofs, posts or railings
- Look for evidence of nailing patterns on siding or repairs to masonry walls
- Look for historic photos, drawings or maps
- Compare porches on neighboring buildings of similar type, design, style and date of construction
- Look in attics, basements, garage or storage areas for original components
- Look for evidence of former porch piers or foundations in landscape
- Ask long-term neighbors or prior residents if they remember a porch on the house



Since porches are typically the closest portion of the building to the street and are experienced from both sides, details, such as this unusual balustrade, can make a big difference in their appearance.

PORCH GUIDELINES

The HPC encourages:

- Painting wood porches regularly to preserve the wood
- Retaining, repairing and replacing porch elements in-kind whenever possible
- Rebuilding a porch with appropriate documentation
- Porch enclosures that retain the visual characteristics of an open porch
- A painted finish complementing the architectural characteristics of the house – pressure-treated wood can be painted after its initial weathering period

The HPC discourages:

- Enclosing a porch at the front of a building
- Installing metal posts and railings; they are almost never appropriate for a historic building
- Replacing wood steps with concrete or brick – wood steps are typically appropriate for wood porches
- Using “natural” or stained wood; they are generally not appropriate for a porch on a historic building



The large areas of screening on this porch make it appear more like a porch than an enclosed room. It is recommended that the white screen enclosure framing be painted a darker color, similar to the screen color, to minimize its visibility.

ENCLOSING PORCHES

Porches were meant to be open exterior spaces. Enclosing a front porch is a radical change to the building and its visual perception from the streetscape. If considering porch enclosure, it is recommended that this occur only at a side or rear elevation porch. If enclosing a porch, it is recommended that the finished space look more like a porch than an enclosed room.

The HPC encourages:

- Retaining porch elements in place and constructing enclosure framing inside of porch columns and railings
- Temporary enclosure systems, such as screens or glazing that can be removed seasonally
- Reversible enclosure systems that do not damage decorative or unique historic building fabric
- Translucent enclosure systems, with large screened or glazed openings
- Vertical and horizontal framing members that align behind porch elements like columns and railings



Porch enclosures that are attached to existing decorative porch elements such as this column can cause damage that is both difficult and costly to repair.



This porch enclosure is located behind the porch columns and decorative balustrade, is as translucent as possible, and is reversible. Major framing members are also located behind columns and the balustrade, minimizing their visibility.



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Dominique M. Hawkins, AIA, of Preservation Design Partnership in Philadelphia, PA, prepared this publication.



**GUIDELINES FOR
HISTORIC LANDSCAPES**



Township of Hopewell Historic Preservation Commission

GUIDELINES FOR HISTORIC LANDSCAPES



Hopewell Township farmstead with field, fence and trees.

PURPOSE

These *Guidelines* were prepared to assist property owners and provide an understanding of the design considerations when considering the exterior alteration of a historic house, new construction within the context of historic buildings, or other historic property changes. They are not intended to replace consultation with qualified landscape architects, architects, contractors and the Historic Preservation Commission (HPC).

These *Guidelines* were developed in conjunction with Hopewell Township's Historic Preservation Commission (HPC). The HPC reviews Certificate of Appropriateness (COA) applications for proposed exterior alterations to properties locally designated as Historic Landmarks or within a local Historic District. The applicant is responsible for complying with the provisions of the Zoning and Building Codes at the time of application. The applicant must obtain a Certificate of Appropriateness (COA) as well as all necessary permits prior to proceeding with any work. For more information, or to obtain permit applications, please call the COA Administrator at (609) 737-0612, ext. 643.

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HISTORIC LANDSCAPES OF HOPEWELL TOWNSHIP

The historic landscapes of Hopewell Township have a unique character. The open fields and woodlands frame views to farm complexes, while streets and yards of crossroad villages frame the architecture. Landscape changes can add to or detract from historic buildings and their settings. Addressing landscape elements and their character in relation to historic primary structures and secondary buildings can help maintain the area's traditional environment.

To better understand historic landscapes, it is important to identify the features of the four general types of traditional properties in Hopewell Township:

- *Township lot on a street*, a relatively small property close to neighbors
- *Crossroads village property*, property with neighbors at intersection, with fields or woodlands at edges
- *Rural property*, larger property set in fields or woods
- *Farmstead*, with traditional farmhouse, farm buildings and fields

For each property type, the relationships of landscape elements can be viewed in terms of the front, side and back yards around primary structures, as well as the locations of secondary structures within the landscape setting. Aspects of the landscape surrounding individual or groups of historic structures represent important associations of traditional organization and visual and physical relationships.

The HPC encourages:

- Keeping views of historic buildings open to street
- Front yard development with traditional, simple arrangements, similar to neighboring properties
- Modern amenities screened from public views

The HPC discourages:

- Modern amenities in front and side yards in view from the public street
- Dense foliage, fences or other screening blocking views to historic structures from the public way



This early view of a Hopewell Township crossroads illustrates the character of the open landscape, field patterns, and clustered buildings at the crossroads in the 1920s.

TOWNSHIP LOT ON A STREET

The landscape of neighboring properties along a streetscape is seen as a composition. Owners should be aware of the landscape treatment of their immediate neighbors, the grouping of properties on their block and street, and the overall cluster of houses in the area.

Individual properties should be considered in terms of the front, side and rear yards; how the landscape functions for everyday use; and how it affects the overall character of the property and streetscape. Typical features of a township lot on a street include:

- Front yards that can include the street edge, street sidewalk, and entry walk, lawn, garden, one or more trees and possibly on-street parking
- Side yards that are often a narrow space that may include a driveway, lawn, plantings and storm water drainage systems
- Rear yards that are often more screened from the street frontage and may have space for a secondary structure such as a garage, shed, deck or arbor; a path to access a secondary door, a lawn or garden area; and shrubs or trees

The arrangement of the landscape elements of the yards is important both to the maintenance of the historic structures and to their character.

The HPC encourages:

- Locating and screening modern amenities, such as a paved terrace, garage, swimming pool or large wood deck to minimize visibility from the public roadway
- Developing a front yard landscape that is historically appropriate for the property

CROSSROADS VILLAGE PROPERTY

Clusters of houses at crossroads are another historic property arrangement in Hopewell Township. Crossroad village properties are experienced individually and as a grouping around an intersection. While similar to a township lot, the crossroads village setting is a limited cluster of parcels developed in the eighteenth and nineteenth centuries to serve local uses such as taverns, stores, blacksmiths and the like. Many of these historic buildings have since been adapted to serve residential and office uses with small cemeteries or monuments adding to the traditional character and historic sense of place.



The open, green landscape of a small cemetery, historic church and historic buildings in the crossroads village of Harbourton demonstrates the green space typical of this landscape.

Properties in crossroads villages typically include:

- Parcels with a narrow street frontage, short street setbacks, no sidewalks, large side and rear yards and several secondary structures
- Primary historic structures that are often positioned close to the street and open to views along the street
- Relatively large side and back yards that often contain secondary structures within landscape settings
- Greener and more open properties with less density than along a township street
- Old deciduous and evergreen trees providing green mass and a large scale in relation to the historic structures
- Narrow driveways that are often paved with gravel with parking organized within the property and visually screened from roadway
- Small scale walks to entry doors that are often paved in traditional materials
- Wooded patches or cultivated fields bordering open side and rear yards



A modest house on a rural property with dry laid stone wall along the street frontage, orange daylilies around the mailbox and shade and evergreen trees along the frontage away from the house.

RURAL PROPERTY

Historic homes set in a rural surround of woodland and fields represent another Hopewell Township property type that demonstrates the long traditions of living on and in harmony with the land. A distinguishing characteristic of rural properties is their visibility from the nearby road and the broader landscape. The area surrounding the house tends to be relatively simple, with a few shade trees; perhaps a small garden, a fence or wall set back from the streets; and a narrow driveway with limited paving. This traditional development pattern can be respected by current and future property owners and can be employed when an area is developed for newer residences.

Another common type of rural property in the Hopewell Township features a historic house positioned farther from the road within a larger landscape setting. The landscape treatment favors open lawn or meadow and trees in a grove or placed in a more formal line defining an edge. Views to and from the historic house over a relatively simple landscape typify this property type.



This larger rural property has a deeper setback from the road, open views, a single deciduous tree in lawn, and a mixed row of trees at the entry drive.

FARMSTEAD

The pattern of the farmstead landscape is also traditional, with the principal feature, the historic farmhouse, surrounded by a grove of trees. The barns, sheds, silos and other farm structures are near the farmhouse arranged in a cluster with ease of access and prevailing winds in mind, and are visually important in the farmstead building cluster. Secondary structures used for farming activities may be historic or more modern. The grouping of secondary structures can have interspersed trees; flower and vegetable gardens; with the entire cluster set within a relatively open landscape of field, paddock or mown turf. Fences define the farmstead perimeter, as well as garden or paddock boundaries, and other edges. In the farmstead cluster the following historic physical and visual relationships are important:

- Farmstead complex setback from street, with a cluster pattern of farmhouse and farm buildings of various sizes, generally arranged perpendicularly to each other
- Prominent farmhouse framed by a dense tree grove
- Secondary structures located to the side and rear of the farmhouse
- Visually dominant large barns and other secondary structures placed nearby the farmhouse
- A variety of fences defining perimeters, boundaries and landscape uses

The physical and visual relationships between the farmhouse and secondary buildings establish the pattern of the farmstead and distinctive landscape associations. The defined space around the freestanding farmhouse and large barns to the side or rear establish the visual mass of the complex. Smaller secondary structures are often clustered near large barns with access routes between. The size of these routes tends to relate to the farming operations and machinery utilized.

The HPC encourages:

- Retaining visual dominance of historic farmhouse
- Retaining and renewing historic farmhouse tree groves
- Retaining historic farm structures
- Locating modern farm structures in less visually prominent locations
- Respecting visual and physical relationships when constructing new support structures

The HPC discourages:

- Blocking views to historic farmhouse and farmstead clusters

LANDSCAPE FEATURES & ELEMENTS

For each of the four types of historic properties in Hopewell Township, the spaces defined by the primary residence and any secondary structures establish the landscape setting that can contribute to the overall historic character. The landscape elements may include:

- Pedestrian walkways and paving materials
- Driveways and parking arrangements
- Plantings of trees, shrubs, gardens and placement in relation to structures
- Fences, walls, gates and other boundary markers
- Signs, building numbers and outdoor furnishings
- Positive drainage away from structures
- Lighting



This flagstone walk forms a stable, all-weather walking surface and gives a traditional appearance to the landscape.

PEDESTRIAN WALKWAYS

Traditional paving materials for pedestrian walkways in Hopewell Township's seventeenth to nineteenth century properties include stone, brick and gravel. Walks made of flagstone, compacted gravel, and brick laid in basket weave or running bond pattern are locally common. Paving materials often matched or complemented the materials of historic homes and secondary structures. For example, a house with a stone foundation might have stone or gravel walks.

Another advantage of stone, brick and gravel paving materials is that they are somewhat permeable and allow storm water to penetrate into the ground rather than creating more run-off like concrete or asphalt paving. Partially permeable, historic paving materials help to create a sense of place while often complimenting the historic building's architectural design and materials.

Concrete walks may be the traditional material for some twentieth century buildings including Bungalow and Colonial Revival style houses. Historic concrete often included local stone aggregates and were naturally colored by local sand. If concrete is the appropriate paving material, using a local aggregate with an exposed aggregate finish and local sands can help create a traditional feeling in the landscape. Non-historic and inappropriate paving materials with a contemporary appearance include interlocking precast pavers, concrete blocks, and white or brightly colored concrete.



This brick walk in a running bond pattern with a locking soldier course along the edge is a traditional paving material appropriate for use on an historic property.



This stepping stone walk is a good material for a secondary or infrequent route around an historic property.

The HPC encourages:

- Using stone, brick, gravel, or other permeable type of unit paving material of historic appearance
- Regular maintenance and upkeep of pavement
- Using local sands and gravels to color concrete if concrete is historically appropriate

The HPC discourages:

- Using modern interlocking pavers, concrete blocks, white or brightly colored concrete, or asphalt paving

DRIVEWAYS & PARKING ARRANGEMENTS

Traditional driveways were often narrow, compacted gravel access routes. For rural and farmstead properties gravel drives and parking areas often remain a functional choice for contemporary life. However on township lots, in crossroads villages, and on steep slopes, alternatives such as asphalt-paved driveways, brick or cobblestone may be easier to use and maintain.

If considering adding or altering a driveway, driveway widths should be kept as narrow as feasible. Parking areas should be located to the rear or if space is limited, to the side of the house, positioned to minimize the view from the roadway. Expansive paved parking should not be placed in the front of an historic house or directly along the street frontage.

Generally gravel is more historically appropriate for driveways and parking areas than asphalt paving. In steep locations, gravel can be edged with a flat stone or cobblestone gutter. The use of gravel made from local stone with some finer gray and brown particles can provide an appropriate texture and color. Crushed sharp gravel and stone with finer particles tends to yield a sharper surface and a more modern appearance.



This parking area next to a drive creates a large expanse of paving that detracts from the green landscape. Parking should be located to the rear of historic buildings

To minimize paving on a property, areas for occasional parking can be reinforced turf grass. A gravel mixture worked into the soil and overseeded with fescue grasses and white clover can support most vehicles. This area will look like turf but can be mown and used for infrequent parking without adding additional paving. This type of overflow paving area is economical and visually complements the surrounding lawn or gardens.

HPC encourages:

- Limited pavement area for drives and parking on historic properties
- Relatively narrow driveways – generally no more than ten feet in width
- Alternatives to expansive paving at parking areas

HPC discourages:

- Large paving areas in front yard
- Expanses of street frontage parking areas



This historic photo shows the landscape of a typical house in Hopewell Township. Trees are planted in the vicinity of the house and are predominantly deciduous with a few evergreens providing shade and protection. Note the lack of vegetation near the foundation of the house.

TREES, SHRUBS & GARDENS

Historically, plantings and vegetation around residences in Hopewell Township consisted of a few trees, shrubs and mixed gardens. The trees and shrubs surrounding the house provided shade and protection, while gardens provided food, herbs and flowers. Native plants were transplanted from nearby woodlands and traditional plants were carried from homelands. Showy, ornamental trees, shrubs, perennials and annuals were more numerous in the nineteenth century.

Elderberry plant with fruits ripening. Traditionally used for pie and wine, this 8 to 12 foot native shrub has bold white flowers in summer.



PLANTING STYLES

In determining a landscape approach for a historic building, it is best to choose a landscape planting style and palette that complements the principal building, its architectural style and period of construction. Historic records about a specific property or other properties in the area or with a similar setting can provide detailed information regarding plants used and their typical arrangement.



This restored, enclosed dooryard garden at an 18th century home showcases a mingled garden with a variety of historical plants that were traditionally grown for flowers, herbs, medicines, and dyes.

A typical seventeenth to eighteenth century house would have had a mingled garden with a mixture and variety of flowering plants, medicinal and potherbs, dyeing plants, and vegetables or small fruits within an enclosed area. Flowering plants might have also been planted such as a climbing or rambling rose, like the single pink Sweet brier/*Rosa eglanteria*, that may have draped over the fence of the dooryard garden. Today speciality growers sell many historic roses. This mingled dooryard garden would typically have been located immediately adjacent to the house and would have been enclosed with picket or paling fencing to protect the plants from roaming animals.



The low mounded form of the Annabelle Hydrangea with its large, white blossoms is perfect for this garden setting.

As horticultural interest increased with plant exploration and introduction through nurseries in the nineteenth century, gardens tended to be arranged to exhibit and highlight individual plants. Shade trees, flowering trees, and flowering shrubs are featured in the 1900s in addition to flowering plants. Roses such as the rambling rose, Seafoam, or climbing rose New Dawn might have scaled a garden trellis. Vegetables and small fruits were often relegated to the rear yard and less emphasis was placed on medicinal and potherbs or dyeing plants. With increasing control over animals, the flower and vegetable gardens may still be fenced, but are not usually located in the dooryard area.

Early twentieth century planting patterns are often related to the principal building's architectural style. For example, a Colonial Revival house might have had a Colonial style garden. A bungalow, however, probably had corner plantings and perimeter lot plantings to emphasize and accentuate the low lines of the house.



French hybrid lilacs in bloom provide fragrance and an alternative to fencing to screen modern amenities from view.

Historically plantings were typically located at the perimeter of a residential lot, framing an open area around the house. Vegetation was not typically placed adjacent to buildings or their foundations, minimizing the potential for structural and moisture related problems from plantings. Locating vegetation immediately adjacent to a building is a more contemporary approach that is not appropriate for the historic landscapes of Hopewell Township.



Historic iris and gas plant in full bloom add to the historic character of the landscape. Both plants were traditionally grown in the Northeast.

For larger properties, native stands of Staghorn sumac/*Rhus typhina* and common sassafras/*Sassafras albidum* are acceptable plant species that tend to form small colonies. They can be planted and cultivated in groupings at property edges.



Two large street trees in front of a historic house enhance the historic landscape setting. A low hedge differentiates the front yard from the street, while providing open views to the house.

To prolong their lives, historic trees should be cared for by property owners and include inspection and removal of deadwood. When proceeding with a project, care

should be taken to avoid root and trunk damage on all trees. Large historic trees are particularly vulnerable since tree roots extend at least to the canopy line of the overhead branches and leaves. Limit trenching and ground disturbance around all existing trees.

Variegated, burgundy and red foliage shrubs and trees are a recent hybridization phenomenon and should not be planted in a historic landscape.

The HPC discourages using the following trees:

- Red Japanese maple/*Acer palmatum* and Crimson King Norway maple
- Norway maple/*Acer platanoides* in green and red leaved forms is an invasive aggressive species

Invasive exotic trees are present in Hopewell Township and require control due to their tendency to readily propagate. They tend to thrive in disturbed areas and along woodland edges limiting the habitat of native species. One example that is present in the area is the Tree of heaven/*Ailanthus altissima*. Active suppression is required to control invasive, exotic plants.

The tree with red foliage dramatically contrasts with the surrounding green leaved vegetation. Such types of trees should not be planted in historic landscapes.



The HPC encourages:

- Using appropriate native and traditional vegetation in the landscape
- Planting in a style that matches the historic building
- Limiting trenching and ground disturbance around trees and care of historic trees to prolong their life
- Use of green leaved traditional shrubs and trees
- Placement of new trees and shrubs so that they will not crowd buildings as they mature

The HPC discourages:

- Using invasive species of trees and shrubs
- Damaging historic trees and tree roots with construction that is too close to the trees or not carefully carried out
- Placement of new trees and shrubs so that they grow onto the building trapping moisture
- Use of red leaved and variegated shrubs and trees

HISTORICALLY APPROPRIATE PLANTS IN HOPEWELL TOWNSHIP

When considering planting trees, shrubs, and other plants, property owners are encouraged to select species that were historically common in Hopewell Township such as those identified below.

TREES

Shade trees historically graced the streets and villages of Hopewell Township. Significant shade trees remain but need regular care and occasional replacement.

Deciduous trees:

- Hackberry/*Celtis occidentalis*
- Black walnut/*Juglans nigra*
- Hickory species/*Carya species*
- Bitternut/*Carya cordiformis*
- Red oak/*Quercus rubra*
- White oak/*Quercus alba*
- Black locust/*Robinia pseudoacacia*
- Tulip poplar/*Liriodendron tulipifera*
- Green and white ash /*Fraxinus species*
- American sycamore/*Platanus occidentalis*
- American linden/*Tilia americana*
- Red maple/*Acer rubrum*
- Sugar maple/*Acer saccharum*
- Silver maple/*Acer saccharinum* (Silver maple has a negative reputation but it is often found in historic landscape over 100 years old such as Hopewell Township – branches do tend to snap in high winds and they should not be used near parking areas and buildings)

Evergreen trees:

- White spruce/*Picea glauca*
- White pine/*Pinus strobus*
- Canadian hemlock/*Tsuga canadensis*

Appropriate understory trees are native woodland edge trees dug up from surrounding lands.

Understory trees:

- Flowering dogwood/*Cornus florida*
- Shadblow serviceberry/*Amelanchier Canadensis*

- Eastern redbud/*Cercis canadensis* (Eastern redbuds grow best in alkaline soils – Hopewell Township may have acid soils not conducive to growing this understory tree)

SHRUBS

Large flowering shrubs were often used in village and rural settings near historic houses. Appropriate shrub species include traditional green-leaved forms of deciduous flowering shrubs. Fragrant lilacs and mockoranges were often planted near outhouses and it is possible that remaining old shrubs mark early outhouse locations. Old-fashioned climbing roses in pink, yellow, and blush colors were also prevalent. Evergreen shrubs were limited in historic landscapes, if present at all. Common lilac/*Syringa vulgaris* and French hybrid cultivars, like Lilac President Lincoln, are traditionally planted individually or in groups for screening.

- Mockorange/*Philadelphus coronaries*
- Bridal wreath spirea/*Spiraea x vanhouttei*
- Corneliancherry dogwood/*Cornus mas*
- Rose-of-Sharon/*Hybiscus syriacus*
- Pearlbush/*Exochorda racemosa*
- Weigela/*Weigela florida*
- Elderberry/*Sambucus Canadensis*
- Beautybush/*Kolkwitzia amabilis*
- Annabelle Hydrangea/*Hydrangea arborescens Annabelle*
- Shrub Roses/*Rosa species*

Historic shrub roses add landscape interest. Fragrant, old types can be obtained from specialty growers.

The following herbs, medicinals and flowering plants were all prevalent in the 17th and 18th centuries; the variety and types of perennials plantings increased in the 19th and 20th centuries and plantings within gardens also changed.

HERBS & MEDICINALS

- Yarrow/*Achillea millefolium*
- Thyme/*Thymus serpyllum*
- Mints/*Mentha species*
- Fennel/*Foeniculum vulgare*
- Heartsease/*Viola tricolor*
- Foxglove/*Digitalis purpurea*
- Dyer's woad/*Isatis tinctoria* – useful plant for dyeing cloth

FLOWERING PLANTS

- Peony/*Paeonia species*
- German bearded iris/*Iris germanica*
- Coreopsis/*Coreopsis lanceolata*
- Carnations/*Dianthus species*
- Periwinkle/*Vinca minor*
- Black-eyed susans/*Rudbeckia hirta*
- Hollyhocks/*Althea rosea*
- Daffodils/*Narcissus*
- Gas Plant/*Dictamnus albus*
- Roses- Sweet Brier/*Rosa eglanteria*, Rugosa Roses/*Rosa rugosa*, Harrison's yellow/*Rosa harisoni*

TRADITIONAL FRUITS

- Apples/*Malus pumila* heritage types like Northern Spy, Baldwin, Rhode Island Greening, Russet
- Pears/*Pyrus species*, heritage types like Seckel, Bartlett
- Raspberry/*Rubus idaeus*
- Strawberry/*Fragaria virginia*
- Concord Grapes/*Vitis v. Concord*

FENCES, WALLS & BOUNDARY MARKERS

Traditional materials for fences, walls and boundary markers in Hopewell Township include wood, stone, and occasionally cast or wrought iron. Wood and stone enclosures are appropriate for both agricultural and residential areas. Prevalent wood fence enclosures include picket, paling, split rail, post and rail, board, and worm fencing. Local stone walls are often dry laid in historic fashion. Cast or wrought iron fencing is rare in Hopewell Township and is most appropriate for Victorian homes in residential areas to enclose a space in a more decorative manner.



This worm fence of interlocked split wood rails is a traditional fence material for field and property boundaries.

Dry laid stone walls typically marked property lines between neighbors and several remain in the landscape.



Historically, it was common to use several types of fences and stone walls within the same property. Fences divided a property into different areas, with each fencing type dependant on the use of the enclosure. Historically more decorative fencing such as picket or paling fencing enclosed areas immediately adjacent to the house, serving as an animal barrier. Picket and paling fences were also common in surrounding and protecting garden spaces and were whitewashed or painted on a regular basis. Stronger, sturdier fencing was required in agricultural areas such as board or split rail fencing. This sturdy fencing was used to delineate and enclose areas farther away from the house, and was typically functional rather than decorative, without whitewash or paint.



A variety of fencing types enclose this property. Whitewashed picket fencing encompasses the area adjacent to the house possibly around a dooryard garden. The board fence delineates an area further away.

Dry laid stone walls of a rich red-brown stone are found throughout Hopewell Township and represent an appropriate choice for any township property. Traditional fencing types not only marked the boundaries of a specific space, but also allowed visual access to and from the historic structures of a property. This is important when considering different types of fencing today. Large, modern stone or brick piers framing a driveway or entrance walkway are not historically appropriate for a historic house.



While it is constructed of a traditional material, this solid board fencing inappropriately blocks views of the historic building from the street.

Although a new fence may be erected using traditional fencing materials, the overall appearance of the enclosure may not be appropriate. Solid and visually dense fences create privacy, but also block visual access to historic structures from the street, and are not in keeping with the historic character of the landscape.

The delineation of space with traditional, open fencing can create a sense of separation and a degree of privacy without blocking views to the historic architecture.

Modern fencing options such as vinyl or other reflective materials tend to detract from the historic character of the landscape. Using historically common fencing materials in an appropriate manner promotes the overall character of a property and the area and is encouraged.



Fencing types can have simple historic details such as this ball and chain. Attention to detail and use of traditional materials is encouraged.

The HPC encourages:

- Use of traditional materials for fences, walls, gates and other boundary markers in an appropriate manner
- Maintaining building views open to the surrounding roadways
- Regular maintenance and upkeep to fences, walls, and boundary markers

The HPC discourages:

- Blocking views to historic buildings and settings with dense fencing materials or plantings
- Using non-traditional fencing materials such as vinyl
- Constructing large stone or brick piers at driveways or entry walkways



This handmade bent twig furniture adds to the historic character and feeling of the landscape and is a comfortable place to sit.

SIGNS, BUILDING NUMBERS & OUTDOOR FURNISHINGS

Traditional styles of signs, building numbers and outdoor furnishings can enhance a historic property while more modern ones often detract from the historic character. If signage or building numbers are being considered, small, hand painted or carved signs of wood or metal are generally appropriate. Large, plastic or modern sign materials are not appropriate for historic properties and should be avoided.

Outdoor furnishings like benches, tables, chairs and picnic tables are often placed on porches, and in side and rear yards within the public view. Traditionally, simple wood furniture is the most common, and is generally appropriate for historic homes. In the nineteenth and early twentieth century, wrought and cast iron furnishing was popularized. Generally outdoor furnishings positioned in the front yard or public view should be of simple traditional materials that complement the building's architectural style.



The wrought iron furnishings can enhance the overall character of the landscape. They are more appropriate for late 19th or 20th century houses.

The HPC encourages:

- Use of small, custom crafted signs in traditional styles to identify building numbers, businesses, etc.
- Use of traditional materials and styles of outdoor furnishings within public view
- Placement of modern outdoor furnishings in side or rear yards generally out of public view

The HPC discourages:

- Installation of large, modern or interior lit signs on historic properties
- Placement of modern, obtrusive outdoor furniture in the front yard

POSITIVE DRAINAGE AWAY FROM STRUCTURES

Positive drainage away from historic buildings is crucial to prolonging the life of its materials and structure. Over time ground levels often rise around historic structures bringing soil closer to building materials and creating drainage patterns that actually direct water towards buildings. Keeping moisture away from the foundation and materials of a building can reduce basement wall moisture and moisture-related deterioration of building sills and cladding.

Grading around historic buildings should be a minimum of six inches below wood members including sills and siding to reduce the likely of moisture-related deterioration. After proper soil level is established adjacent to the building, soil or paving should be sloped away from the building with the lowest elevations where the water will drain away at a minimum of two feet away from the building's foundation. Please refer to *Guidelines for Exterior Maintenance* for additional information regarding perimeter drainage.

The HPC encourages:

- Maintaining positive drainage away from structures
- Adjusting grading to position lowpoints at least two feet away from building foundations
- Adjusting grading around historic structures to place soil six inches below wood
- Installing splash blocks or extending downspouts and rainwater conductors away from building foundation

The HPC discourages:

- Storm and surface water draining toward buildings
- Groundwater ponding adjacent to foundation
- Soil less than six inches below wood building members



This Arts and Crafts style light complements the historic structure and directs light downward rather than spilling into the night sky.

LIGHTING

Outdoor lighting is an amenity of modern life. For a historic house, outdoor lighting should highlight the architecture and be of a style appropriate for the historic building. A wide range of wall-mounted or free-standing, replica historic lighting is available. With a careful selection of location and screening, modern lighting can also be unobtrusively installed on historic properties.

An amenity of rural living is visibility of the stars in the night sky. Conscious light spill control is required to retain starry sky views. Most residential lighting is installed to illuminate pathways and access routes. Generally lighting on one property should not spill onto the neighboring lots or into the night sky. To minimize light spillage, many lights are available that cast light downward where it is needed to illuminate walking surfaces. Existing lights can often be fitted with hoods or shields to direct light downwards.

The HPC encourages:

- Unobtrusive lighting of historic properties that limits light spill onto neighboring properties and into the night sky
- Use of traditional lighting fixtures that complement the architectural style

The HPC discourages:

- Obtrusive lighting of historic properties that spills light onto neighboring properties and into the night sky
- Use of modern lighting fixtures on historic buildings

HISTORIC LANDSCAPE RECOMMENDATIONS

Shaping the landscape requires long and dedicated planning and effort. Property owners should consider historically appropriate options when selecting and locating plant materials, driveways, parking, walkways, fences, lighting and other landscape features.

The HPC encourages:

- Traditional, simple arrangements in front yards using local materials of historic appearance
- Front yard development similar to neighboring properties
- Maintaining views of historic buildings from the roadway
- Placing modern amenities generally out of public view in side or rear yards and screening them from view with traditional materials
- Stone, brick, gravel, or other permeable traditional unit paving material
- Local aggregate and sand if concrete paving is historically appropriate
- Traditional materials and styles for fences, walls, gates, boundary markers, and site furnishings
- Routine maintenance and upkeep of pavement, fences, walls, and boundary markers
- Limiting pavement area for parking areas and narrow driveways on historic properties
- Planting styles that complement architectural styles and historic building's character
- Planting native, traditional, and green leaved vegetation in the landscape
- Caring for and protecting historic trees to prolong their lifespan
- Placement of new trees and shrubs away from historic buildings so they will not crowd structures as they mature
- Using small, custom crafted signs and building numbers in traditional styles and materials
- Installing traditional lighting fixtures that complement the architectural style and limit light spillage onto neighboring properties and into the night sky
- Attention to positive drainage away from buildings by establishing a low point away from the building and controlling roof downspout drainage

The HPC discourages:

- Blocking views to historic structures with dense fencing or vegetation
- Placement of modern amenities in front and side yards in a location that is visible from the public roadways
- Use of obtrusive lighting that spills onto neighbors or into the night sky
- Modern, non-traditional materials for walkways, fences, site furnishings, and signage
- Invasive, red leaved, and variegated species of shrubs and trees
- Damaging historic trees and their roots by construction activity that is too close or not carefully carried out
- Placement of new trees and shrubs abutting historic buildings, trapping moisture against the structure
- Non-traditional and obtrusive lighting fixtures on historic properties that spill light onto neighboring properties and into the night sky
- Draining storm and surface water toward historic buildings



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**GUIDELINES FOR
ADDITIONS & NEW CONSTRUCTION**



Township of Hopewell Historic Preservation Commission

GUIDELINES FOR ADDITIONS & NEW CONSTRUCTION



The construction of additions and secondary buildings can have a dramatic impact on the historic setting.

These *Guidelines* were developed in conjunction with Hopewell Township's Historic Preservation Commission (HPC). The HPC reviews Certificate of Appropriateness (COA) applications for proposed exterior alterations to properties locally designated as Historic Landmarks or within a local Historic District. The applicant is responsible for complying with the provisions of the Zoning and Building Codes at the time of application. The applicant must obtain a Certificate of Appropriateness (COA) as well as all necessary permits prior to proceeding with any work. For more information, or to obtain permit applications, please call the COA Administrator at (609) 737-0612, ext. 643.

Please review this information during the early stages of planning your project. Familiarity with this material can assist in moving a project quickly through the approval process, saving applicants both time and money. Additional *Guidelines* addressing other historic building topics are available at the Township Administration Building and on its web site at www.hopewelltp.org.

PURPOSE

These *Guidelines* were prepared to assist property owners with information when considering the construction of a new building or an addition to an existing building. They are not intended to replace consultation with qualified architects, contractors and the Historic Preservation Commission (HPC). The HPC will be happy to provide consultation and assistance with materials, free of charge.



At times additions can allow the continued use of a building.

ADDITIONS AND NEW CONSTRUCTION WITHIN A HISTORIC CONTEXT

New construction is a sign of the economic health and vitality of a community and can take many forms including:

- Additions to a historic or existing building
- New primary buildings along a street
- New secondary structures such as garages, sheds, or other outbuildings
- New porches and decks

Although a demonstration of economic health, new construction can result in a dramatic change to the visual appearance and perception of a community. Because of this, new construction and additions are encouraged to be designed to be compatible with the historic character of the area and the streetscape. In the case of demolition of all or part of a building or structure, applicants are encouraged to consider the historic value of the property to the streetscape and area as a whole, and pursue alternative actions such as adaptive reuse or additions.

NEW CONSTRUCTION

New construction on a historic property or within a historic area can dramatically alter its appearance and that of the streetscape. Because of the historical sensitivity of the area, property owners should take great care when proposing new construction, understanding how contemporary design will be viewed within the streetscape and neighborhood context.

The following information is intended to provide the elements and principles of appropriate design to allow maximum creativity while allowing plans for new construction to be assessed fairly, objectively and consistently. They are intended to encourage the designer of new construction to consider existing historic buildings as a starting point in the design process and not the final goal. In many cases, the most successful new buildings are those that are clearly contemporary in design but compatible with the character of neighboring properties. The experience of the community can be enriched by buildings that have merit in their own right and are sensitive to their setting and environment.

The HPC encourages:

- Preservation of the cohesive ambiance of historic properties and areas with compatible, sympathetic, and contemporary construction
- Compatible contemporary designs reflective of the time that are not visually overwhelming
- Matching setbacks (distances to property lines) of adjacent buildings on a streetscape
- Compatible siting, proportion, scale, form, materials, fenestration, roof configuration, details, and finishes to adjacent and nearby properties

The HPC discourages:

- New construction duplicating historic buildings



This newer residence has a similar form, scale, setback and similar materials to adjacent historic buildings.



An inappropriate addition can have a detrimental impact on the historic buildings and streetscape.

ADDITIONS TO EXISTING BUILDINGS

Historically the need for increased space was often addressed by constructing additions to existing buildings. Additions to existing historic buildings can provide increased space while maintaining the historic character of the original building and streetscape.

In conformance with *The Secretary of the Interior's Standards*, an addition to a historic building should be subordinate to the historic building and read clearly as an addition. The subordinate appearance of an addition can be achieved through its placement, form, size, massing, materials and details.

Contemporary design and additions to existing properties should not obscure, damage or destroy significant architectural material, and should be compatible with the design of the property and the neighborhood. Whenever possible, additions should be constructed in a manner that, if removed in the future, the essential form and integrity of the historic building would be unimpaired.

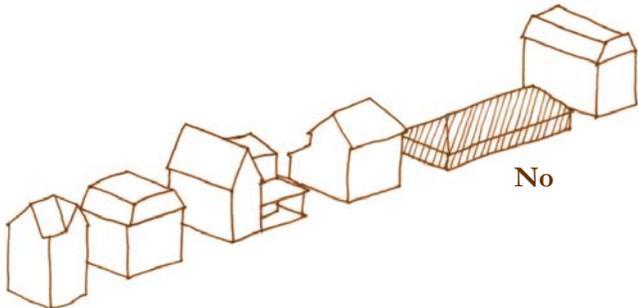
The HPC encourages:

- Construction of additions at rear or side elevations wherever possible that are subordinate to the historic building, and compatible with the design of the property and surrounding neighborhood
- Construction of additions so that the historic building fabric is not radically changed, obscured, damaged, or destroyed



The addition to the left has a similar and appropriate scale, proportion, overall form and window pattern as the existing building. The addition to the right is significantly larger than the existing building and is visually overwhelming and inappropriate.

Size and Scale: New construction should reflect the dominant cornice and roof heights of adjacent buildings and the proportions of building elements to one another and the streetscape. In cases where the street does not have an obvious or dominant rhythm of cornice heights and window openings, the decision of the HPC will be based on a consideration of actual height and composition of major volumes of the proposed building within the streetscape.



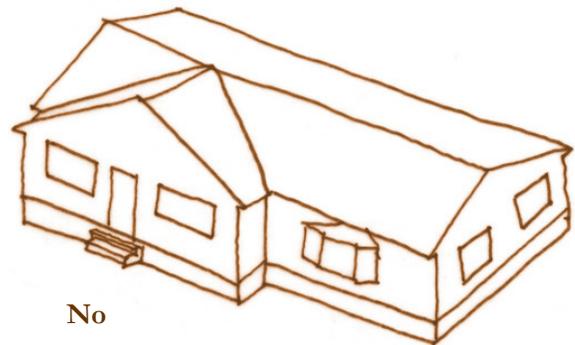
When several adjoining buildings in the same row are the same relative height and width, variation can be very obtrusive. The new building is significantly wider and lower than the adjoining buildings. The building size, scale and proportions are inappropriate for the streetscape.

In Hopewell Township, where two and three story buildings are the norm, buildings that digress from these standards by any great degree can seriously impact the neighborhood. If large scale construction is considered, particular attention will be given to the location, siting, setbacks (distance to the property lines,) façade treatments (materials, window and door openings, etc.) and the effect of the proposed building on the streetscape and neighborhood as a whole. An addition should be smaller than the original building with similar floor-to-floor and first floor heights.

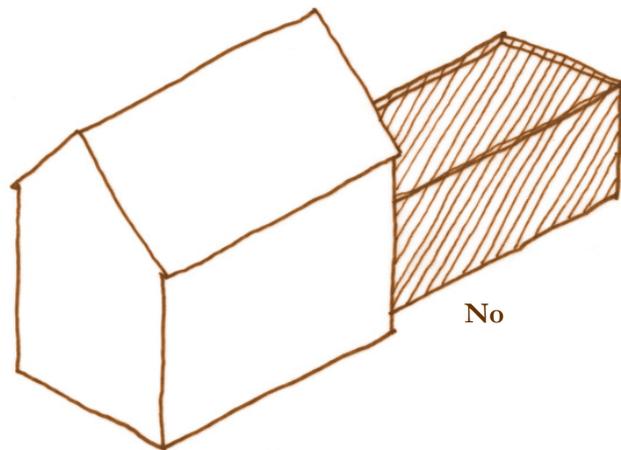
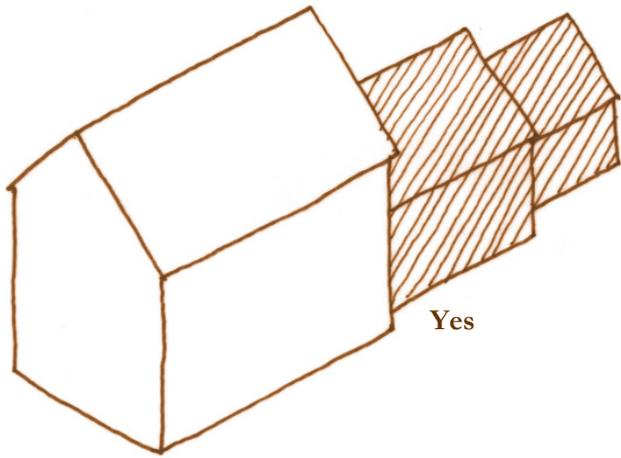


The one-story residence is not an appropriately sized or proportioned building for the streetscape. The form has a horizontal rather than vertical emphasis. The new building to the right is a similar size and has a similar form to the existing buildings.

Proportions: New construction should relate to the dominant proportions of the buildings on the streetscape while new additions should relate to the dominant proportions of the existing building. The proposed design should closely reflect the height and width ratios of the overall building proportions as well as that of doors, windows, porch bays and storefronts.



Although both houses have intersecting gable roofs, the massing and proportions of the house below are significantly more horizontal in comparison to the more traditional house above, which is more vertical in emphasis. Because of its vertical emphasis, the more traditional house would be more appropriate within the context of Hopewell Township's historic buildings. In addition, the house above has a more varied form with the wrapping front porch, enhancing the overall building geometry.



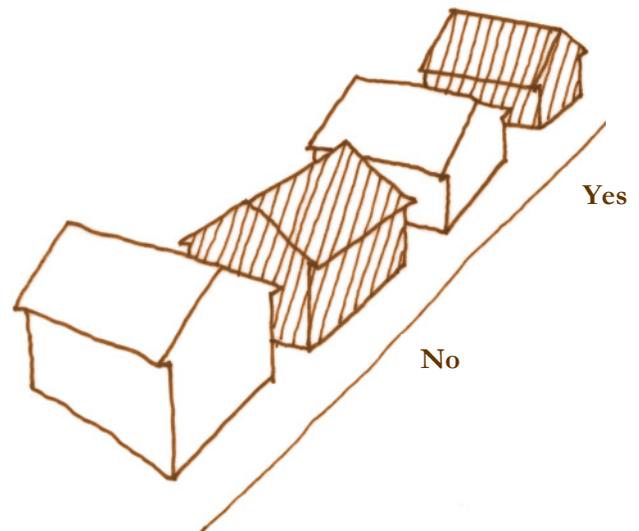
The two gable roof additions with decreasing roof heights and widths shown in the upper example represent an appropriate composition with regard to form, mass and proportions to the original gable roof building. Additions similar to this with decreasing geometry are known as cow and calf type, and are typical of historic construction. The lower example of a flat roofed addition is an inappropriate form for the original gable roof building. The length of the mass visually competes with the original structure.

Form and Massing: Form refers to the shape of major volumes of a building while massing refers to the overall composition of the major volumes of a building, particularly if there are major and minor elements. The façades of new construction should reflect the form of neighboring buildings including the feeling of lightness or weight with similar proportions of solids (walls or siding) to voids (windows and door openings) and projecting porches, bays and overhangs. The massing of additions should complement, but not necessarily match the original building. For example, a glassed-in side porch might be a “lighter” variation of the original façade massing while a solidly infilled side porch might not be appropriate.

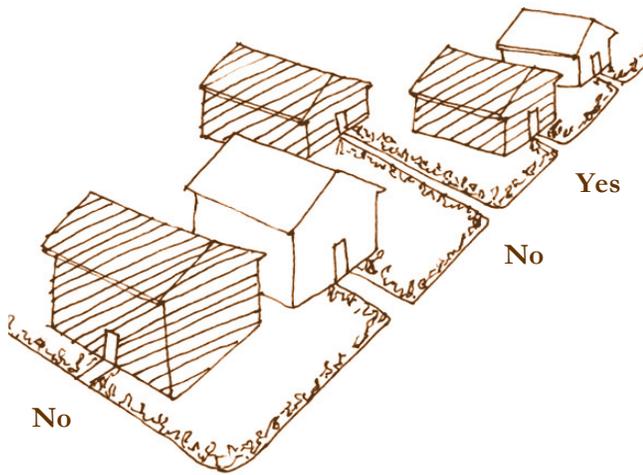


The size and placement of all four additions is similar, however the roof forms vary. It is generally more appropriate to add a sloped roof addition to a historic building unless the historic building originally had a flat roof.

Orientation: The principal façade of new construction should be oriented in the same direction as the majority of the buildings on the streetscape. In the case of new construction on a corner site, the front façade should face the same direction as the existing buildings on the street and follow the rhythm of the streetscape. When adding to an existing building, the addition should be located, planned, and detailed so as to not confuse the dominant historic orientation of the original building. The addition should not have the effect of creating a new primary façade. The addition should not be visually dominant, and should be screened from the street as much as possible.

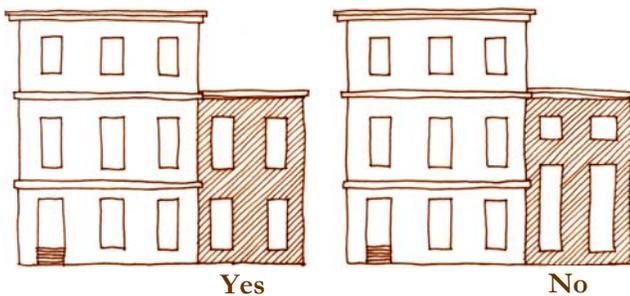


The orientation of the existing buildings is with the gable end facing the street. In cases where there is an overwhelming existing orientation, it is recommended that new buildings be similarly oriented.



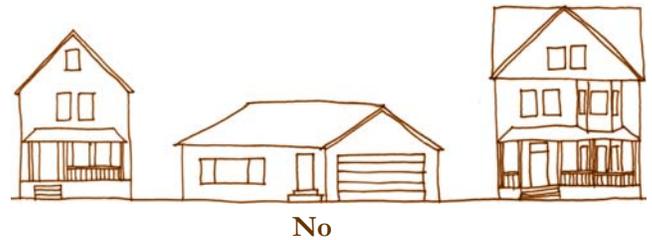
Although all of the new buildings have the appropriate form, the setback of the middle building from the sidewalk is much greater than the existing buildings and inappropriately large. The entrance of the corner building is oriented towards the perpendicular street and is inappropriate.

Rhythm and Patterns: The rhythm and patterns of principal façades of new construction should reflect and maintain neighborhood and streetscape patterns. The rhythm and patterns of principal façades of an addition should reflect that of the original building.



The proportions of the windows at the left addition are consistent with those found at the original building. By contrast, the first floor windows at the right addition are significantly taller and the second floor significantly smaller. The proportions of the right addition are not appropriate for the building.

Rhythm and patterns across the width of a façade typically include the number of bays and the location and spacing between doors and windows. Vertical considerations for rhythm and patterns include floor-to-floor heights, first floor height above the ground, cornice heights, and the vertical distance between rows of windows and windows and cornices. In some instances, where the proposed use for a new building prevents maintaining rhythms and patterns, the property owner is encouraged to incorporate detailing to suggest them.



Street facing garage doors and oversized picture windows are typically not appropriate in a neighborhood with historic residences. The scale of these large openings is inconsistent with the surrounding architecture.



Although the size, scale, form and mass of the two new buildings are consistent with the neighboring buildings, the new building to the right has enlarged window openings inconsistent with the buildings found on the streetscape.

Window and Door Openings: For new construction, the size, shape, design, proportions and placement of storefronts, windows and door openings should be similar to those in the surrounding historic buildings. For additions, the size, shape, design, proportions and placement of windows and door openings in the addition should be similar to those in the existing building. Windows should be functionally similar, such as double hung windows, and have similar muntin or grid patterns as the neighborhood's historic buildings. Doors should reflect the historic proportions of windows and panels.



The windows and the corner boards of the building have unusual detailing. If an addition for this building is proposed, every effort should be made to retain this detailing and the new construction should have compatible, not necessarily duplicate trim and similar deep overhanging eaves.



Some buildings feature elaborate wood moldings such as this Italianate house that includes a bracketed eave with egg and dart moldings and dentils, as well as decorative window hoods. Because of the complexity of the details, in most instances it would be prohibitively expensive to attempt duplication in an addition. If an addition were considered, a simpler version of the detail would be recommended.

Architectural Details: The character-defining features and details of the historic neighborhood buildings should be reflected in the design for the new construction and additions. These architectural details include roof form, porches, porticos, cornices, lintels, arches, quoins, chimneys, projecting bays, and the shapes of window and door heads. In many instances these details can be “simplified” to provide compatibility without requiring duplication of historic features.



Two additions are located at the rear of the main house, a two-story intersecting gable roof addition and a one-story shed roof addition. The additions utilize similar details and materials as the historic house.



Materials and Textures: New construction should use materials and textures in a manner that is sympathetic to the historic buildings found in Hopewell Township and on the streetscape where they will be located. Materials should be of a similar or complementary color, size, texture, scale, craftsmanship, and applicability to the function performed. Traditional materials common in the historic buildings of Hopewell Township such as brick, wood, stone and stucco are recommended.

A sympathetic use of materials should not imply that materials used in new construction should duplicate the old in detail, nor that new construction attempt to duplicate historic structures. Rather, it is a matter determining the compatibility of the new with the old. It is often appropriate to simplify details such as cornices and moldings. This gives the new building or addition a more contemporary appearance and does not make it look like a historic replica.



The form and proportions of the original house and addition are similar, with the roofline of the addition being slightly lower. The materials are compatible, with the clapboard addition having simpler detailing than the shingle siding at the historic residence.

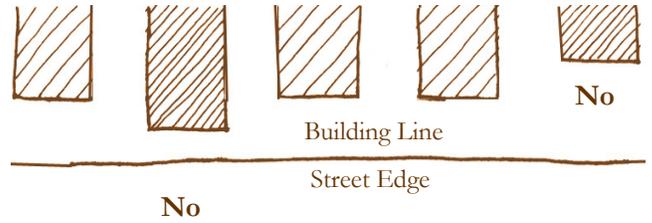
Although new additions can use materials similar to those used in the historic building, there are times when this is not economically feasible or practical. In these cases it is appropriate to alter materials at additions as long as the material at the addition is a “lesser” material than the original construction. This would include adding a wood clapboard or stucco addition to a stone or brick building; however it is not appropriate to construct a brick or stone addition onto a wood clapboard building.



As viewed from the street, the principal historic stone building dominates the public view. The garage building, located to the right of the photograph, has a similar side gable roof form and does not visually compete with the main house.

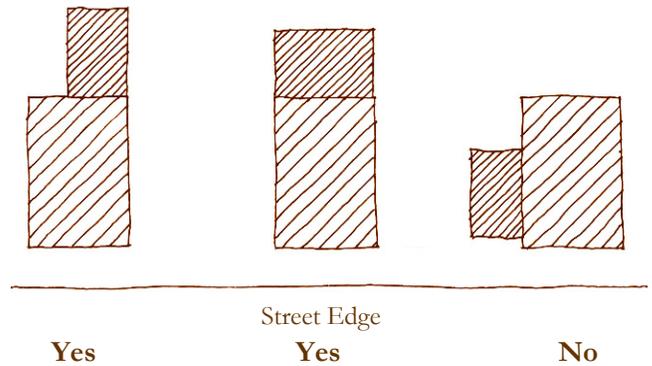


When the same residence is viewed from the side, additions are visible. These additions have similarly sloped gable roof forms as the historic building, but are smaller in scale. Similar details are used in the additions including roof edges and multi-paned double hung windows, some with shutters. The wall materials at the additions are stucco and wood clapboard, both “lesser” materials than the historic stone.



New construction should not step forward from or recede back from adjacent buildings on the streetscape.

Streetscapes: New construction should reflect prevailing setbacks (distances between the building and the property line or street or sidewalk) and physical elements that define the historic buildings on a streetscape, such as stone walls, wood fences, building facades or combinations of these which form visual continuity and cohesiveness with the period buildings.



The visibility of the left and middle additions would be limited from the sidewalk and the street. The addition to the right is very visible from the sidewalk and street and should be avoided.

Additions should be positioned to have the least visible impact from the street, with additions at front façades strongly discouraged and rear additions generally most appropriate. Additions at side elevations are generally appropriate, although it is recommended that they be held back as far as possible from the street.



The visibility of the rear addition is very limited from the street.

SECONDARY BUILDINGS AND STRUCTURES

Most properties in Hopewell Township include more than a single principal building. In many instances, secondary buildings, structures and landscape features are also present and contribute significantly to the overall property, setting and surrounding neighborhood.

Secondary buildings and structures include but are not limited to barns, silos, sheds, carriage houses, garages, detached decks, farm related buildings, outhouses, hot tub enclosures, play houses and animal shelters.

Secondary buildings and structures can contribute significantly to our understanding of Hopewell Township's history and character. Although most farm-related buildings were designed to be utilitarian, buildings associated with residences such as carriage houses and garages were often constructed to reflect or be complementary to the property's principal building. These similarities can include similar forms, materials and detailing.



Outhouses are some of the smallest secondary buildings. Although they were ubiquitous at the beginning of the twentieth century, very few remain. Similar to principal buildings, secondary buildings require regular maintenance to avoid costly major repairs, replacement or eventual demolition.



Although the barn and farm related buildings are secondary to the residence, they are highly visible from the roadway and important to the context and historic setting. The barn at the Chamberlain farmstead was constructed c. 1900 and features three, hipped-roof cupolas.

A secondary building or structure is significant if it was:

- Constructed at the same time as the principal building on the site
- Constructed after the principal building on the site but was used for a significant function
- Represents an important architectural design or construction method
- Associated with an important event or person related to the property
- Built incorporating distinctive characteristics of form, style, materials or detailing or shares those characteristics with other buildings on the site



The garage is located at the rear of the residence. It is clearly subordinate to the house and sympathetic in design and form using a hipped, pyramidal roof with overhanging eaves and of similar materials.



The former carriage house located to the rear of the principal building was retained and adapted for a new use allowing the historical setting to be preserved.

The following guidelines are recommended when addressing historically significant secondary buildings and structures.

The HPC encourages:

- Maintaining significant secondary buildings and structures as carefully as principal buildings
- Carefully maintaining significant and unique details at secondary buildings and structures including cupolas, barn doors, overhead doors, etc.
- Adapting functionally obsolete buildings for new uses such as converting a carriage house into a garage

The HPC discourages:

- Demolition of significant secondary buildings and structures



Secondary structures with prominent visual features such as this silo are important to the historic setting and streetscape.



Although a portion of this secondary building was demolished, the retention and stabilization of the partial-height walls allows a better understanding of the historic context.

DEMOLITION OF SECONDARY BUILDINGS AND STRUCTURES

Because secondary buildings and structures can contribute to the overall property, historic setting and streetscape, demolition or removal from the site is strongly discouraged and should be avoided.

In some instances, secondary buildings can become functionally obsolete on a property, such as a carriage house or outhouse. Before considering demolition as an option it is recommended that alternative uses that maintain the historic character be explored. Carriage houses have successfully been converted into garages and outhouses can be easily adapted into garden sheds.

When a secondary building or structure has deteriorated so significantly that repair is no longer a practical option, demolition might need to be considered. This includes unsafe buildings or structures that can not be stabilized. If demolition is determined to be the only alternative, it is recommended that it be conducted as sensitively as possible and not damage other historic buildings, structures or features that remain on the site.

The HPC encourages:

- Ensuring that demolition will not damage other parts of the historic building, neighboring buildings, or landscape features
- Documenting the secondary building or structure with photographs and/or drawings prior to demolition
- Considering reuse of salvageable materials such as windows, doors, hardware, shutters, bricks or siding for other buildings on the site or other projects preventing disposal of these materials in landfills



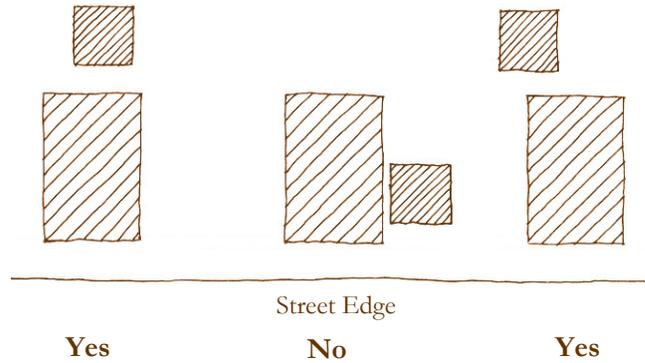
Historically secondary buildings were designed to be similar in form, style detailing and materials to the principal building on the site.

NEW SECONDARY BUILDINGS AND STRUCTURES

Similar to additions, secondary buildings and structures should be subordinate to and visually compatible with the primary building without compromising its historic character. Ideally the secondary structure should be located so it is not visible from the street and if that is not possible, so that the visibility is limited.



The garage and small shed building are located behind the historic house, limiting their visibility from the roadway. The detailing of the buildings is visually compatible to the house including gable end returns at the main roof and shutters at the upper floor buildings.



The visibility of the secondary structures at the right and left is limited from the roadway. The secondary structure in the middle is very visible from the roadway and should be avoided.

The HPC encourages:

- Adapting functionally obsolete buildings for new uses, such as converting a carriage house into a garage rather than constructing new buildings
- Locating secondary buildings and structures at the rear of the main building and away from the principal entrance
- Designing secondary buildings and structures to complement the principal building and other buildings on the site; using similar form, materials and simplified detailing
- Construction of new secondary buildings in a manner that does not damage other resources on the site

The HPC discourages:

- Construction of new secondary buildings or structures in a location that is highly visible from public thoroughfares



The garage is located behind the historic house, limiting its visibility from the roadway. The form, materials and detailing of the garage are visually compatible with the house including the front gable roof form.

BUILDING RELOCATION

It is always preferable to retain a building in its original historic setting; however there are circumstances when that is not feasible or practical. Instances where this might not be realistic include buildings located within a flood plain or buildings in a location that would be disturbed by a major infrastructure project such as road widening.

When it has been determined that retaining a historic building at its original site is not feasible and all other alternatives have been explored, relocation can be considered. It is important to remember that buildings are best appreciated within the appropriate setting and duplicating the major elements of that historic setting should be considered.

The HPC encourages:

- Selecting a site with similar characteristics as the original site including elevation changes and major tree placement
- Locating the building in a similar setting as the original site including orientation and distance from the roadway, and proximity to trees and other landscape features
- Relocating related resources and landscape features such as secondary buildings and structures, stone walls, wood fences, stone walkways, etc. to the new site to re-establish original relationships

The HPC discourages:

- Altering the historic spatial relationship between the relocated building and its surrounding historic features



The former Harts Corner Public School No. 12 was constructed in 1906 and used as a school until 1936. The one-room schoolhouse was relocated by the Township, but retains its historic relationship to the nearby road intersection.



Not all buried resources are as clearly marked as this cemetery.

ARCHAEOLOGICAL RESOURCES AND EXCAVATION

Although Hopewell Township regulations do not specifically address archaeological resources, it is recommended that property owners treat potential below grade areas with potential resources carefully. Once a site has been disturbed by untrained lay persons, the ability to reveal the site through professional interpretation might be lost forever.

If the construction of a new building or addition will require substantial excavation on a previously undisturbed archaeological site or adjacent to an existing historic building or complex, there is the potential to uncover important archaeological resources. There is often a potential for Native American archaeological remains in certain types of environmental settings; while many of the Township's oldest farmsteads and dwellings may contain or be surrounded by archaeological deposits. Archaeological resources of interest in the Township include the sites of Native American camps, historic houses, mills, shops, stores, taverns, schools, churches and graveyards. It is recommended that property owners with known sites leave those sites undisturbed until the site may be professionally uncovered and recorded.

If you are considering excavation and would like more information regarding potential archaeological resources or have begun excavation and uncovered what appears to be an archaeological resource, you are encouraged to contact the HPC or the New Jersey Historic Preservation Office at:

New Jersey Department of Environmental Protection
Historic Preservation Office
P.O. Box 404
Trenton, NJ 08625-0404

Tel: (609) 292-2023, 292-2028, 984-0140

Email: njhpo@dep.state.nj.us

DEMOLITION

Demolition of an existing building is a drastic action and an irreversible act whose effect can reach far beyond a single parcel. The demolition of historic buildings alters the character of the streetscape, and surrounding buildings, as well as the specific demolition site. Once buildings that contribute to the historic district and history of the community are destroyed, they cannot be replaced. This could represent a lost educational resource for the community, whether the building was an example of past construction techniques, or has associations with a significant individual or event in our history. As a result, demolition is rarely considered to be an appropriate alternative.

The HPC encourages:

- An evaluation of the significance of the historic building proposed for demolition
- All attempts to reuse a historic building be exhausted before considering demolition

The HPC does not recommend demolition unless:

- The proposed demolition involves a non-significant addition or portion of the building, provided that the demolition will not adversely affect those portions of a building that are significant
- The proposed demolition involves a non-significant building, provided that the demolition will not adversely affect those parts of the site that are significant
- Public safety requires the removal of the building and it is deteriorated beyond repair, in danger of collapse and cannot be stabilized
- The structural instability of the building has been documented by the report of a structural engineer or architect and appropriate documentation of the existing building has been completed

If demolition is determined to be the only alternative, it is recommended that it be conducted as sensitively as possible.

The HPC encourages:

- Ensuring that demolition will not damage other parts of the historic building or neighboring buildings
- Documenting the building with photographs and/or drawings prior to demolition
- Considering the donation of salvageable materials such as windows, doors, hardware, shutters, bricks or siding to an architectural salvage company so they can be used for other projects and not be disposed of in landfills



Demolition is an irreversible action that alters the character of the streetscape and surrounding area. The HPC strongly recommends against the demolition of buildings or features that are significant architecturally or because of their association with a significant individual or event in Hopewell Township's history.



This project has been financed in part with Federal funds from the National Park Service, U.S. Department of the Interior, and administered by the New Jersey Department of Environmental Protection, Historic Preservation Office. The contents and opinions do not necessarily reflect the views or policies of the U.S. Department of the Interior, nor does the mention of trade names or commercial products constitute endorsement or recommendation by the Department of the Interior.

This program receives Federal financial assistance for identification and protection of historic properties. Under Title VI of the Civil Rights Act of 1964, Section 504 of the Rehabilitation Act of 1973, and the Age Discrimination Act of 1975, as amended, the U.S. Department of the Interior prohibits discrimination on the basis of race, color, national origin, disability or age in federally assisted programs. If you believe that you have been discriminated against in any program, activity, or facility as described above, or if you desire further information, please write to: Office of Equal Opportunity; National Park Service; 1849 C Street, N.W.; (NC200) Washington, DC 20240.

Dominique M. Hawkins, AIA, of Preservation Design Partnership in Philadelphia, PA, prepared this publication.



Township of Hopewell Historic Preservation Commission

COA APPLICATION INFORMATION

WHAT IS THE HPC?

The Historic Preservation Commission (HPC) is a formally appointed body authorized by the Municipal Land Use Law established in 2000 to help protect the architectural and cultural heritage within Hopewell Township. Among its responsibilities, the HPC considers the effects of proposed exterior changes to individual locally designated Historic Landmarks, and buildings and properties within the Historic Districts, and comments on the appropriateness of those changes. The five Members and two Alternate Members of the HPC include a person with knowledge of building design, construction or architectural history, a person who is knowledgeable of local history and citizens with an interest in history, historic preservation, or a related field.

WHAT THE HPC REVIEWS

The HPC reviews all proposed exterior changes at Historic Landmarks or on any property within the bounds of a Historic District. The HPC reviews the proposed changes to determine whether they are appropriate to the individual property and within the surrounding historic context in regard to the architectural style, general design, arrangement, location, and materials. Once the HPC determines that the proposed changes are appropriate, they will request that a Certificate of Appropriateness (COA) be issued for the proposed work. The types of projects reviewed by the HPC include:

- Change of the exterior appearance of any building, structure, site, object or improvement including additions, alteration, reconstruction, or replacements of materials
- Relocation or demolition of any building, structure, site, object or improvement
- Changes to fences, walls, or garden structures

HPC review is required for some work that would not otherwise require building permits including door and window replacement. It should also be noted that a COA is necessary but not sufficient for the granting of a building permit. The applicant must obtain a Certificate of Appropriateness (COA) as well as all necessary permits prior to proceeding with any work.

WHEN IS A COA NOT REQUIRED?

- The HPC does not review interior changes, unless they affect the exterior appearance of the building.
- The HPC does not review paint colors when the proposed work is limited to re-painting.
- A COA is also not required for what in the Commission's opinion constitutes in-kind repair or replacement for "ordinary maintenance and repair." Property owners must demonstrate that their project constitutes "ordinary maintenance and repair" and will be requested to provide photographs, project descriptions and information regarding proposed materials to the COA Administrator for review.

Contact the COA Administrator at (609) 737-0612 ext. 643 to determine whether a project requires a COA.

TIMING FOR REVIEW

The Township makes every effort to simultaneously conduct required reviews. If an application is incomplete, if the HPC requests a change, or if all Township deadlines are not met, the issuance of permits and approvals could take several months.

- **If the proposed work does not require a building permit:** A minimum of three weeks is required from the submission deadline of the COA application to the issuing of the COA decision
- **If the proposed work requires a building permit:** The Building and Construction Department will make every effort to review the submission for permits simultaneously with the HPC review schedule
- **If the proposed work requires a Zoning Variance:** The HPC's recommendation will be considered at the next scheduled Zoning Board of Adjustment meeting

A HPC representative will review all work for compliance with the approved COA. If changes are proposed after approval for a COA, please contact the COA Administrator at (609) 737-0612 ext. 643 to determine whether additional reviews may be required. Completed work that is not in compliance with the approved COA is subject to fines and possible removal.

COA APPLICATION REVIEW PROCESS

To have your Certificate of Appropriateness (COA) application reviewed by the HPC, it must be submitted with the appropriate materials to the Building and Construction Department at the Township Administration Building by 4:30 p.m. 14 days prior to the HPC meeting at which the application is to be reviewed. HPC meetings typically occur the third Tuesday of each month. Please call (609) 737-0612 ext. 643 to confirm meeting dates.

The date of the HPC meeting at which this application will be considered is at 7:30 p.m. on _____. It is highly recommended that the applicant, or a project representative, attend the requisite HPC meeting in the Municipal Services Building Meeting Room to answer questions or clarify information. At the meeting, the application will be either approved with or without conditions, tabled pending additional information, or denied.

If the application is approved or approved with conditions by the HPC, and the applicant accepts the stipulated conditions, the applicant can obtain a COA from the COA Administrator at the Building and Construction Department within a week of the HPC meeting. If the HPC recommends denial of the application, the applicant can request to be placed on the agenda to appeal the recommendation at the next scheduled Zoning Board of Adjustment meeting. If the Zoning Board of Adjustment also denies the application, the decision can be appealed to the New Jersey Superior Court.

AVAILABLE GUIDELINES

The following *Guidelines* addressing historic materials and building topics are available at the Hopewell Township Administration Building, on its web site at www.hopewelltp.org, and at local libraries:

- *Guidelines for Historic Properties*
- *Guidelines for Architectural Styles*
- *Guidelines for Exterior Maintenance*
- *Guidelines for Roofing*
- *Guidelines for Exterior Woodwork*
- *Guidelines for Masonry & Stucco*
- *Guidelines for Wood Windows & Doors*
- *Guidelines for Porches*
- *Guidelines for Historic Landscapes*
- *Guidelines for Additions & New Construction*

APPLICATION CHECKLISTS

The HPC must have all required information to review a COA application or to make a determination that a COA is not required. If all required information is not submitted, the application may be recommended for denial or tabled until all the information is received.

Repairs and Replacements

- 2 copies Certificate of Appropriateness Application
- Map with property location circled
- 4"x6" (or larger) labeled photographs showing all exterior views of building or structure
- Samples or catalogue cuts of materials to be used
- Any additional information required by the HPC after an initial consultation or review

Renovations, Alterations, Additions, New Construction, Relocation and Demolition

- 2 copies Certificate of Appropriateness Application
- Map with property location circled
- 4"x6" (or larger) labeled photographs showing:
 - a. all sides of existing buildings and structures
 - b. site surrounding existing building and structure
 - c. adjacent sites, buildings, structures including adjacent properties and across streets or ways
 - d. for demolition – interior photographs
- Scaled drawings indicating all proposed changes and notations for new materials:
 - a. site plan including adjacent sites, buildings
 - b. floor plans illustrating changes (at 1/4"=1'-0")
 - c. all elevations illustrating changes (at 1/4"=1'-0")
 - d. details of new exterior elements (i.e. cornices)
- Samples or catalogue cuts of materials to be used
- For demolition applications – a structural assessment by an engineer or architect evaluating whether the property could be reasonably repaired
- Any additional information required by the HPC after an initial consultation or review

TERMINOLOGY

- *Addition*: increase existing building or structure by building outside of existing walls and/or roof
- *Alteration*: physical change to a building or structure
- *Demolition*: intentional destruction of all or part of a building or structure
- *New construction*: complete new structure or building
- *Repair*: fix a deteriorated part of a building or structure
- *Replace in-kind*: match the original feature exactly including original material, scale, size, finish, detailing, texture
- *Replace with new*: does not match original exactly



Township of Hopewell Historic Preservation Commission

CERTIFICATE OF APPROPRIATENESS APPLICATION

(Please type or print legibly with ink. Shaded area completed by Township Staff.)

PROPERTY ADDRESS *(street, city)* _____

Application number:
HPC meeting date:
Block/Lot number:

APPLICANT INFORMATION

Daytime Telephone: _____ Other Telephone: _____

Name: _____ () _____ () _____

Address: _____ Email: _____

Applicant's Capacity: *(circle one)* Owner, Lessee, Agent, Architect, Contractor, Attorney, Other *(identify)*

OWNER INFORMATION *(if different from above)*

Daytime Telephone: _____ Other Telephone: _____

Name: _____ () _____ () _____

Address: _____ Email: _____

PROJECT DESCRIPTION *(check all that apply)*

- Yes No Does the application include all required attachments?
- Yes No Were the *Guidelines* brochures appropriate to the project referenced?
- Yes No Is this project subject to review of other historic preservation organization? *(identify)*

Proposed start date _____

- | | | | | |
|---|-----------------------------------|-------------------------------------|-------------------------------------|---|
| <input type="checkbox"/> Adaptive Reuse | <input type="checkbox"/> Addition | <input type="checkbox"/> Alteration | <input type="checkbox"/> Demolition | <input type="checkbox"/> New Construction |
| <input type="checkbox"/> Repair | <input type="checkbox"/> Replace | <input type="checkbox"/> Painting | <input type="checkbox"/> Relocation | <input type="checkbox"/> Other: <i>(identify)</i> |

Architectural Features	Masonry/brickwork	Siding	Trim	Roof	Dormer/cupola	Chimney	Gutter/downspout	Eave cornice/soffit	Window/screen storm/shutter	Door/screen/storm	Porch/deck/stoop/stair	Porch roof	Porch or deck column/post	Porch or deck railing/baluster	Storefront	Awning / Sign	Other building	Fence/wall/ gate	Other landscape feature
Repair	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>								
Replace in-kind	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>								
Replace w/new	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>								

DETAILED DESCRIPTION OF ALL EXTERIOR WORK AT THE BUILDING AND PROJECT SITE

(See attached submissions checklist for required submissions. Indicate all exterior materials and colors. Use additional sheets if necessary.)

PRESERVATION OF HISTORIC CHARACTER

What steps will be taken as part of the scope of this work to preserve your property's historic character and that of the surrounding neighborhood?

OTHER INFORMATION THE HPC SHOULD CONSIDER WHEN REVIEWING THIS APPLICATION

By signing this application, the applicant and owner agree to property site visits by Hopewell Township staff, HPC Members and their representatives until the project has been deemed to be complete.

Signature of Applicant

Date

Signature of Owner *(if different)*

Date

Notes:

- This completed application, along with a completed Building Permit Application (if appropriate), must be submitted to the Building and Construction Department at the Township Administration Building a minimum of fourteen (14) calendar days prior to the next HPC meeting for consideration. Work cannot commence until a Certificate of Appropriateness (COA) and necessary building permits and any zoning relief have been issued.
- In lieu of a signature, the Owner can issue a letter stating agreement with the Application and further agrees to be bound by any conditions imposed by the granting of the Certificate of Appropriateness.

