

DESIGN GUIDELINES

FOR HISTORIC PRESERVATION

EAST BRADFORD TOWNSHIP

CHESTER COUNTY, PENNSYLVANIA



DECEMBER 2021

Design Guidelines Task Force
East Bradford Township, Chester County, Pennsylvania
FRENS & FRENS STUDIO of patterhn ives llc



*Above: Stroud Preserve, Worth / Jefferis Historic District.
Previous page: Emmor Seeds Farm, Worth / Jefferis Historic District.*

NOTES & ACKNOWLEDGEMENTS

These design guidelines were prepared by the Frens & Frens Studio of Patterhn Ives for the Design Guidelines Task Force of East Bradford Township, Chester County, Pennsylvania.

Thanks go to the following individuals and organizations who helped make these Design Guidelines possible:

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Vincent M. Pompo, Chair
John D. Snook, Vice Chair
J. Patrick Davis

DESIGN GUIDELINES TASK FORCE

John D. Snook, Vice-Chair, Board of Supervisors
Andrea Campisi, Director of Planning and Zoning
John Marshall, Chair, Historical Commission
Elizabeth Bertheaud, Vice-Chair, Historical Commission
Mary Sue Boyle, Historical Commission and HARB
Jean Renshaw, Historical Commission
Ann Armstrong, Historical Commission and HARB
Richard D. Buchanan, HARB
Craig Grear, Historical Commission
Tom Russo, Historical Commission

These Design Guidelines were funded by East Bradford Township and a grant from the Certified Local Government program administered by the Pennsylvania Historical and Museum Commission. The activity that is the subject of this publication has been financed in part with Federal funds from the National Park Service, U.S. Department of the Interior. However, the contents and opinions do not necessarily reflect the views or policies of the Department of the Interior.

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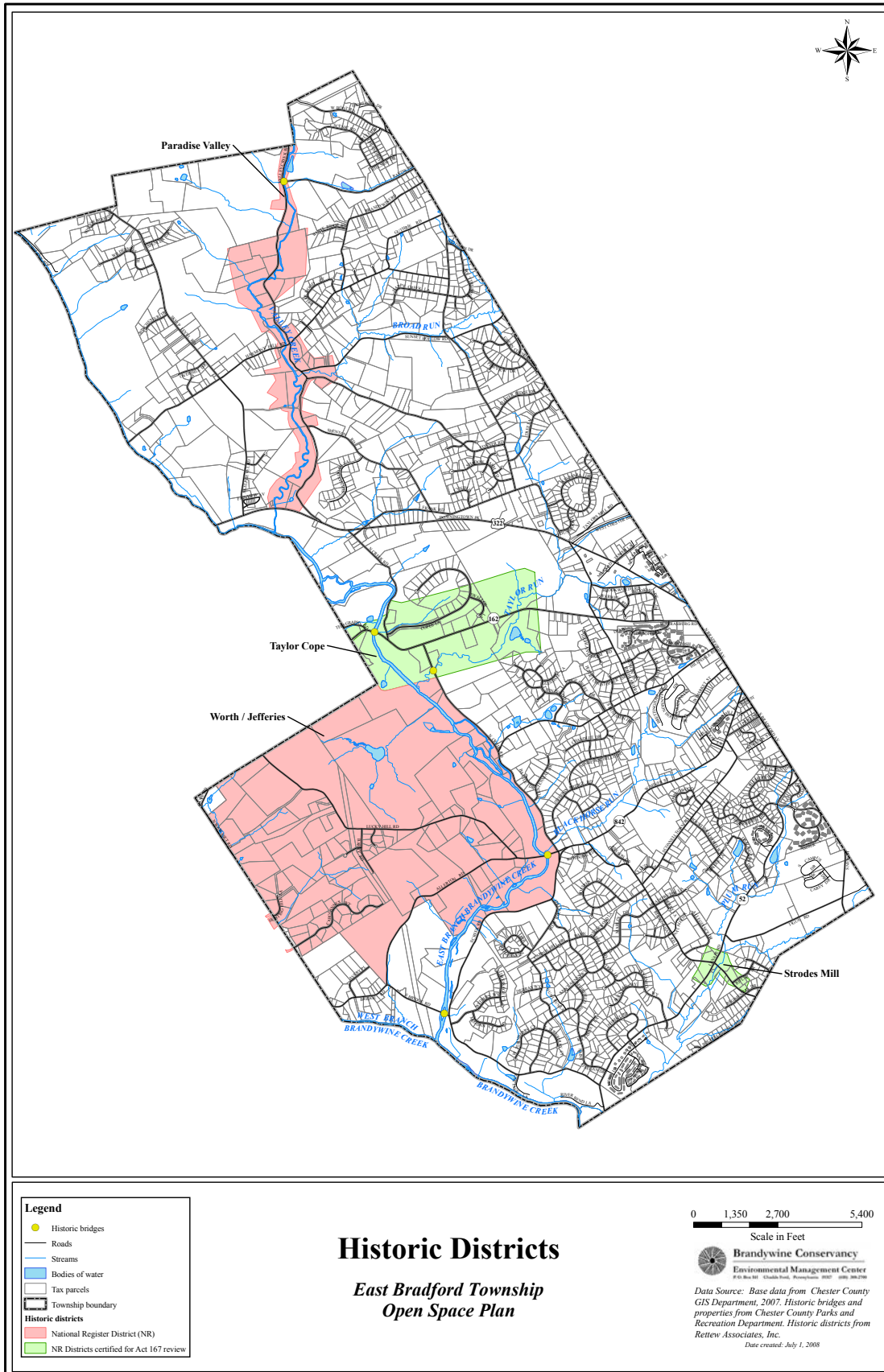
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Courtesy of East Bradford Township HRI.

1 INTRODUCTION

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- 1.1 INTRODUCTION TO EAST BRADFORD TOWNSHIP'S DISTRICTS AND RESOURCES
- 1.2 INTENT OF DESIGN GUIDELINES
- 1.3 HOW TO USE THESE DESIGN GUIDELINES

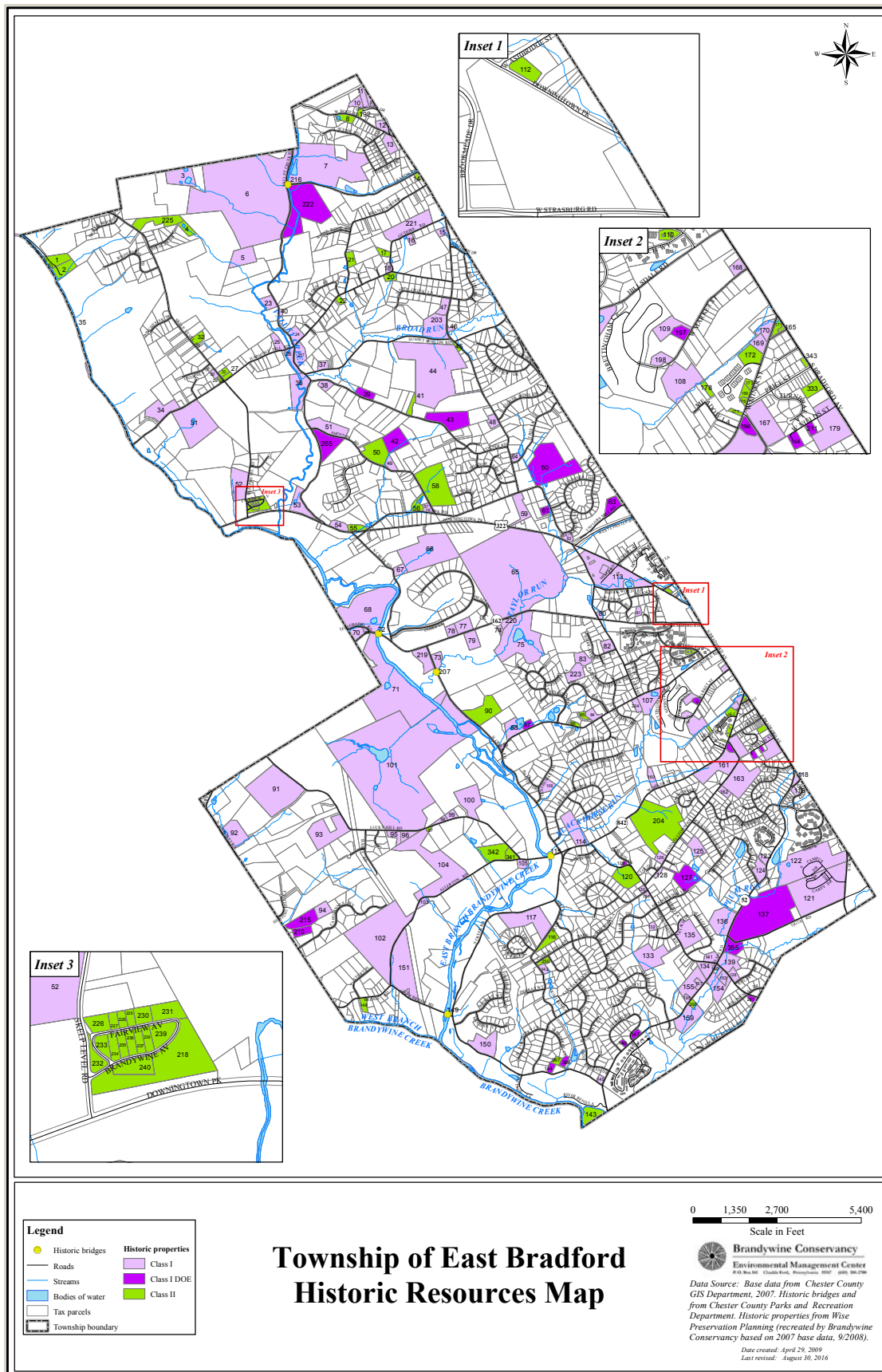
1.1 INTRODUCTION TO EAST BRADFORD TOWNSHIP'S HISTORIC DISTRICTS AND RESOURCES

East Bradford Township has a wide variety of historic settings that include large estates, expansive farmsteads, historic villages and suburban residential neighborhoods. These design guidelines are written to address proposed changes to East Bradford's historic districts and historic resources in highly varied settings.

Preserved buildings and historic districts provide a sense of stability and a tangible connection to East Bradford Township's past. Materials, forms and architectural styles employed in buildings tell a great deal about material availability, community economics and connections to the outside world at the time. This heritage, experienced by residents and visitors, is worthy of preservation. These guidelines are designed to help residents and property owners preserve the character and setting of historic resources and historic districts while ensuring that those resources and districts continue to meet the needs of residents, property owners and visitors. New construction, rehabilitation, restoration and historic building maintenance can be guided to preserve historic resources and historic districts. These guidelines create a path for change that will strengthen and protect local heritage.

The Township Code provides for the protection of historic resources and historic districts in Chapter 115, Article XX: Historic Resource Protection Standards.

Chapter 115-123 of the Township Code contains provisions for the review of proposed demolitions of Class I, Class I DOE and Class II resources, and alterations, additions and exterior changes to Class I historic resources as reviewed by the Historical Commission. Chapter 115-130 contains provisions for the review of proposed demolitions, alterations and new construction in certified historic districts as reviewed by the Board of Historical Architectural Review (HARB). At the time of publication, the certified historic districts in the Township are the Taylor-Cope Historic District and the Strode's Mill Historic District. Following review of an application for demolition, alteration, addition or new construction under the applicable chapter of the zoning ordinance, the HARB or Historical Commission makes a recommendation to the Board of Supervisors, who in turn acts on the recommendation. If the Board of Supervisors concurs with the recommendation, it issues a Certificate of Appropriateness for HARB applications and approval of Historical Commission applications.





1.2 INTENT OF THE DESIGN GUIDELINES

The Design Guidelines for East Bradford Township are intended to assist property owners, the Historical Commission and the HARB in the protection of the historical character of the Township in an informed, cooperative effort. The guidelines provide an analysis of what is special about the historic resources and historic districts in the Township, and offer specific direction for preserving those qualities.

This document is not meant to be used as a strict and rigid rule book. Chapter 115, Article XX of the Township Code will continue to be the legal basis for historic design review in the Township.

The Design Guidelines are a flexible tool for ensuring the thoughtful preservation of the historic resources and historic districts. As such, they advocate two primary goals for every proposed change:

- To encourage preservation and minimize harm to historic fabric.
- To enhance the historic character of the historic resource or district.

To achieve these goals, the guidelines strive to meet the following objectives:

- To assist property owners in planning for the acquisition of property, alterations to historic structures and new buildings and additions.
- To provide property owners and reviewers with the criteria that will be used to evaluate applications.
- To ensure that reviews of applications are consistent, minimizing the influence of individual tastes and arbitrary preferences.
- To augment the Secretary of the Interior's Standards for Rehabilitation (see Appendix B).

The guidelines highlight the unique historic character of the Township and help establish a process for accommodating change over time in a manner that enhances the resources and districts, encourages pride, fosters stewardship, increases property values, supports local businesses and generally improves the quality of life in the community.



Abiah Taylor Farm, Taylor-Cope Historic District.

1.3 HOW TO USE THESE DESIGN GUIDELINES

The Design Guidelines are intended to be comprehensive in order to address each type of proposed change to buildings and landscapes within historic districts and individual historic resources. For each individual application, however, reading of the entire design guidelines is not necessary. Following are recommended approaches to using the Design Guidelines for various types of proposed changes to historic resources.

- **For all historic property owners:** Chapter 2, “Historical Overview of East Bradford Township,” provides a general history and a description of building types and architectural styles in East Bradford Township. Historic building owners are encouraged to read this chapter to gain an appreciation for the township’s historic architecture.
- **For all applicants:** All applicants are encouraged to read Chapter 3, “Design Review Process,” in order to understand application submission requirements, the review process and review schedule.

Some architectural terms used in the Guidelines may be unfamiliar to readers. Therefore, a glossary of common architectural terms is included in the Appendix. Defined terms appear in green italics when used in the body of the Guidelines.

- **For proposed additions to historic buildings and new buildings in historic districts:** Applicants are encouraged to read Chapter 4, “Qualities of Historic Architecture,” in order to understand the characteristics of historic buildings that the HARB and Historical Commission seek to preserve and enhance through new construction. This chapter also establishes a vocabulary for discussing the qualities of existing historic buildings and the proposed addition or new construction.

General and specific guidelines for new buildings and additions are then described in Chapter 6, “Guidelines for New Buildings and Additions.” Specific factors to be considered in the proposed new construction are described in Section 6.2, “Specific Guidelines for New Buildings and Additions.” For example, if the proposed addition was limited to a new *porch* or reconstructing a historic *porch*, the applicant would only need to consider Section 6.2.6, “*Porches* and *Stoops*.”

- **For proposed repairs to and replacement of historic exterior building elements:** Applicants are encouraged to read Chapter 4, “Qualities of Historic Architecture,” in order to understand the characteristics of historic buildings that the HARB and Historical Commission seek to preserve and enhance through repairs to existing historic buildings.

Guidelines for proposed repairs to and replacement of historic exterior building components are then described in Chapter 5, “Guidelines for Preserving Historic Buildings.” All applicants are encouraged to read Section 5.1, “General Guidelines for Preserving Historic Buildings,” in order to understand the logic behind “Specific Guidelines for Preserving Historic Buildings” contained in Section 5.2. Within Section 5.2, building components are arranged alphabetically, and only those components that apply to the application need to be considered. For example, if the application consisted of replacement roofing, new gutters and downspouts and *cornice* repairs, the application would refer to Sections 5.2.13 through 5.2.23, as applicable.

- **For proposed solar panels:** Applicants are encouraged to read Chapter 4, “Qualities of Historic Architecture,” in order to understand the characteristics of historic buildings that the HARB and Historical Commission seek to preserve while upgrading the sustainability of historic buildings.

Guidelines for solar panels are contained in Section 7.8 of Chapter 7, “Guidelines for Sustainability.”



*Top: George Cope painting of Taylor-Cope Historic District, courtesy of Chester County History Center.
 Bottom Left: Strode's Mill, an early grist mill on Plum Run, courtesy of the Library of Congress.
 Bottom Right: Harmony Hill General Store .*

2 HISTORICAL OVERVIEW

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 - 2.2.11 BUNGALOW (1905-1930)
 - 2.2.12 MID-TWENTIETH CENTURY STYLES (1930 TO 1970)

2.1 HISTORICAL OVERVIEW OF EAST BRADFORD TOWNSHIP

The indigenous people who inhabited the stream and river valleys that became East Bradford Township were the Lenape or “Original People,” who occupied the region during the late archaic and early woodland periods, six thousand years ago. Displaced by Quaker settlement in the late 17th and early 18th centuries, evidence of their settlement survives only in the form of archaeological resources.

From its earliest European settlement, agriculture predominated the use of the 15 square miles of land that eventually became East Bradford Township. So evenly distributed were the farmsteads that only three village clusters supporting a general store were developed prior to the Civil War – one at Strode’s Mill (built around the grist mill), one at Cope’s Bridge (built around the expanding iron works) and one at Harmony Hill.

Farming and milling largely defined the settlement patterns in the Township. Broad, fertile, stream valleys attracted the earliest settlers. The fertile valley formed by the East Branch of Brandywine Creek and Taylor Run is now recognized as the Taylor-Cope Historic District, the valley formed by Valley Creek and Broad Run is now identified as the Paradise Valley Historic District, and the valley formed by the East Branch of Brandywine Creek and Black Horse Run is the third agricultural historic district in East Bradford, the Worth / Jefferis Historic District. All three of these historic districts are listed on the National Register of Historic Places, and all three are pastoral, cultural landscapes that are based on landforms, streams and preserved farmsteads and mills for their character and significance. The Township’s fourth National Register historic district, Strode’s Mill Historic District, is based on the modest crossroads village that grew up around Strode’s Mill, an early grist mill on Plum Run, the third of the Township’s major tributaries to the Brandywine.

Following William Penn’s acquisition of Pennsylvania in 1681, the southeastern counties and townships were immediately subject to land speculation, in which investors purchased large tracts of property sight-unseen, often reselling them or subdividing them without ever traveling to the new colony. According to *History of Chester County*, by J. Smith Futhey and Gilbert Cope, the southern portion of East Bradford Township was physically surveyed in 1686, and they credit Richard Buffington as being the first English settler, in 1696. Bradford Township was organized in 1705 with the first constables identified as Richard Buffington, Robert Jefferis and Abiah Taylor. In addition to these three early leaders, other Quaker family names that dominated land ownership were Cope, Darlington, Few, Hoopes, Jefferis, Strode, Townsend, Woodward and Worth. In 1731, Bradford Township was divided into East and West Bradford, and then in the 19th century, East Bradford’s boundaries were adjusted to their present lines.

The American Revolution touched East Bradford when 12,000

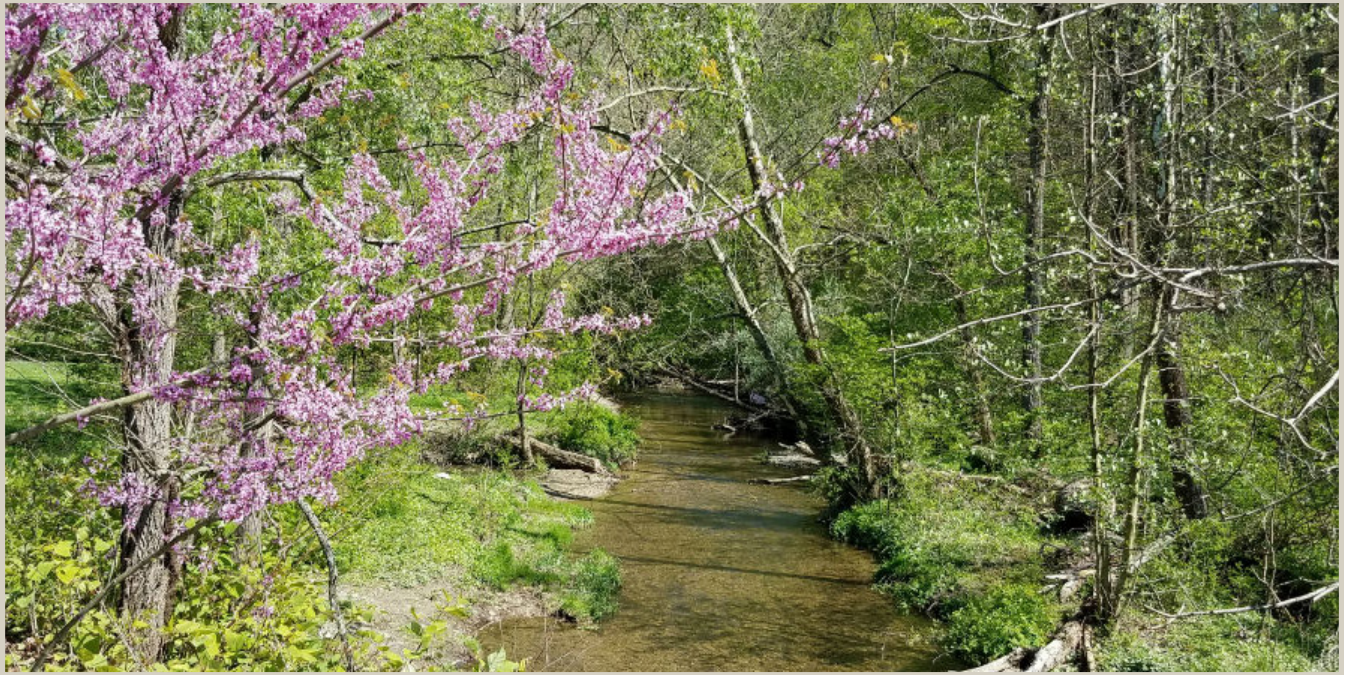
British and Hessian soldiers under the command of Lord Cornwallis and Sir William Howe crossed the Brandywine at Jefferis Ford on September 11, 1777 in an attempt to outflank George Washington in the Battle of the Brandywine, in what is now the Worth / Jefferis Historic District.

The most historically significant road that traversed East Bradford was Strasburg Road, which crosses the Township from east-to-west, and at its crossing of the Brandywine is Cope's Bridge, a National Register-listed stone arch bridge built in 1807. Prior to the founding of neighboring West Chester Borough in the late 18th century, Strasburg Road was a continuous road from Lancaster County to Philadelphia. Served by this road was a tilt hammer mill in the 1790s and the village of Copesville, whose economic engine was Edge T. Cope & Sons, a foundry that produced turbine water wheels (for grist mills), farm implements, and in what may have been a one-time opportunity, the architectural iron castings for the fluted cast iron *columns* and ornamental leaves, rosettes and volutes of the 1847 *classical*, Composite-Order *columns* of the Chester County Court House in West Chester.

East Bradford, from its earliest European settlement, was largely agricultural, with the most limited concentrations of settlement near mills, cross roads and the iron works at Copesville. A handful of inns and taverns existed, as well as the general stores mentioned earlier, several private schools in former dwellings, a small number of early one-room public schools, a Grange Hall, but no churches or Quaker meetinghouses after Bradford Meeting became part of West Bradford in 1731. This was highly productive farm country with conservative dwellings and lifestyles but innovative agricultural practices, most manifest in the development of the barn, beginning with the small English field barn, then the classic Pennsylvania bank barn and ultimately the double-decker bank barn.



Paradise Valley.



*Top: Broad Run and Valley Creek in the Paradise Valley Historic District.
Bottom: Cope's Bridge in the Taylor-Cope Historic District, a National Register-listed stone arch bridge built in 1807. Photo courtesy of the Library of Congress.*



Strobe's Barn, Strobe's Mill Historic District.

2.2 BUILDING TYPES AND ARCHITECTURAL STYLES IN EAST BRADFORD TOWNSHIP

Historic buildings in East Bradford Township are constructed of stone, brick, timber frame and log. Among the earliest and largest buildings, stone masonry is the predominant building material, extending through the middle of the 19th century. Pointed stone masonry was the preferred wall material for dwellings, mills, barns, springhouses and other farm outbuildings in the 18th and 19th centuries.

Surviving historic building types in the Township include the following:

- Dwellings
- Barns: The 2005 Historic Resource Survey identified a total of 75 barns in East Bradford Township, built in nine different types. Twenty-five-percent of the barn types were ruins, and of the standing barns, 60-percent were bank barns – either two-level bank barns or three-level “double-decker” barns. The earliest dated barn in the Township is the 1724 Abiah Taylor stone barn, a rare English field barn that was once prevalent in the Township. This early barn type was typically built of timber frame or log, and disappeared when cattle replaced wheat as the core of Chester County agriculture. The classic bank barn featured stables at the lower, or basement, level and a threshing floor and flanking hay lofts at the upper level. The structure was built into a bank when possible, so that both the upper and lower levels opened on to grade (the lower level facing south and the upper level facing north). When a bank of adequate height was not available, the threshing floor was accessed via a ramp

The double-decker barn was the culmination of the banked dairy barn in East Bradford. Robert Ensminger, author of *The Pennsylvania Barn*, credits 19th-century Quaker farmers with the invention of this barn type, which is a vertical enlargement of the classic bank barn. In this barn type, the stables are located at the lower or basement floor, above which is a large granary room that is flanked by two-story hay lofts. Directly above the granary, and accessed via a ramp, is the threshing floor, which is essentially a bridge between two hay lofts. The largest of the double-decker barns was the Parke Barn, 1906-1907, attributed to Chester County barn builder Lawrence Beebe.

- Farm outbuildings including silos, corn cribs, ice houses, well houses and wagon barns
- Springhouses
- Mills

Surviving ruins in the Township include the following:

- Mill dams
- Mill races
- Lime kilns
- 18th-century roadbeds

Stylistically, buildings in East Bradford fall into two groups:

- a. English *vernacular* and English/Germanic *vernacular* building forms from the early 18th century until the second quarter of the 19th century, and
- b. Romantic, Victorian and Eclectic styles extending from the last decade of the 18th century into the early 20th century.

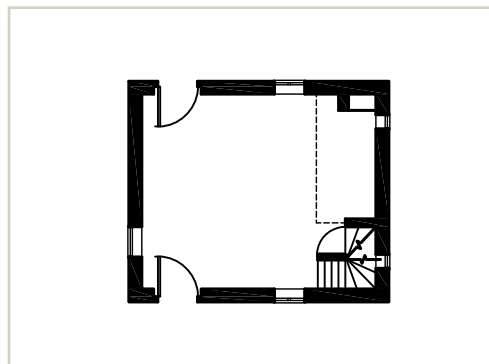
The *vernacular* buildings are associated with farming and milling while the latter group is generally associated with the most advanced farms as well as non-agricultural settlement and dwellings built by residents who were employed outside of the Township.

Numerous architectural styles are represented in the historic buildings of the Township. The following pages identify the styles represented in the Township and many of their typical characteristics and the period in which that style was most often constructed. The generic style plans and representative examples are not meant to strictly define the styles, but simply offer the user an understanding of the style's significant features and details and the value of their preservation.

2.2.1 ENGLISH COLONIAL VERNACULAR (TYPICALLY 1700-1776)

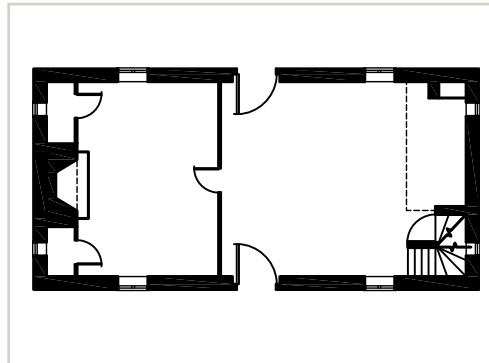
The unity of historic architecture in East Bradford derives from the shared cultural values of early settlers, and the limited range of building functions, materials, structural systems and dwelling plan forms available. These plan forms appeared throughout English colonial settlement areas of southeastern Pennsylvania, and fall into five house plan forms, all of which are represented in East Bradford.

Hall Plan: single room dwelling built first of log, then stone, usually 1-1/2 story. The hall plan is the most basic plan type, composed of a single room and constructed of log, frame or stone. In the 1796 and 1799 Triennial Tax Lists, the majority of Chester County dwellings were hall-plan forms, constructed of log. The “hall,” in English usage, was a kitchen room that also functioned as a sitting room or domestic work room, eating area, and in hall-plan dwellings, a place to sleep. The most rudimentary hall-plan dwelling had a loft above the single ground floor room, which was accessed by a ladder and provided an additional sleeping and storage area. Some hall-plan dwellings had a full second story and are described as “chambered-hall-plan” dwellings. (Excerpted from “*Vernacular Plan Forms in Willistown Township Dwellings*” by Dale H. Frens, AIA, in *Acres of Quakers: An Architectural & Cultural History of Willistown Township, Chester County, Pennsylvania, from First Settlement Through 1900*, compiled by John C. Nagy and Penny Teaf Goulding, 2006.



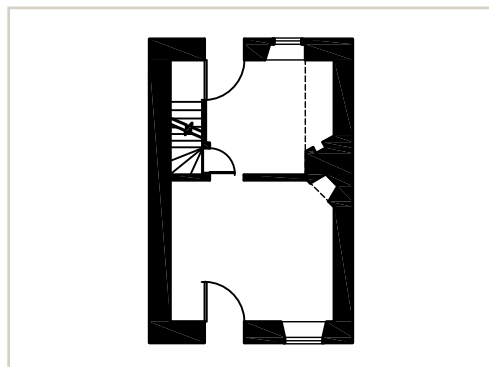
Left: Hall Plan typical ground floor plan.
Right: 240 Lucky Hill Road is representative of a two-and-a-half story Hall Plan dwelling in East Bradford Township.

Hall-Parlor Plan: two rooms wide, one room deep. The hall-parlor plan is a two-room plan, two rooms wide and one room deep, and generally facing south to maximize winter heat gain. The front façade is usually *asymmetrical* with two windows flanking a door near the center. The front door always opens into the “hall,” and the parlor, considered an “inner room,” is connected to the hall. The hall functioned in the same manner as in a hall-plan dwelling, while the parlor functioned variously – sometimes a chamber for the adults of the household, a chamber for grandparents or as an office. The parlor was heated by a fireplace. Hall-parlor plan dwellings are almost always 2-1/2 stories high.



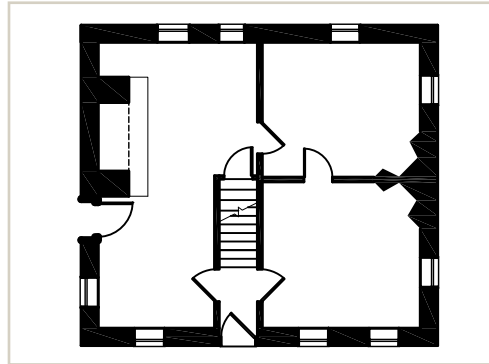
*Left: Hall-Parlor Plan typical ground floor plan.
Right: 15 South Bridge Road, the Hance Farmhouse is representative of a Hall-Parlor Plan dwelling in East Bradford Township.*

Penn Plan: two rooms deep, 1 room wide. The Penn plan, also named the “tradesman plan” is also a two-room plan, except one room wide and two rooms deep. This plan type was recommended by William Penn for a village setting, in which the front room served as a work room for a tradesman such as a weaver, and the back room was the family “hall.” Despite the intended use in a village context (as a small rowhouse), many Penn-plan dwellings were built as farmhouses. The front façade of Penn-plan dwellings are two “*bays*” wide, with a door and a window on the first floor and two windows on the second floor. Like the hall-parlor plan, Penn-plan dwellings are 2-1/2 stories high.



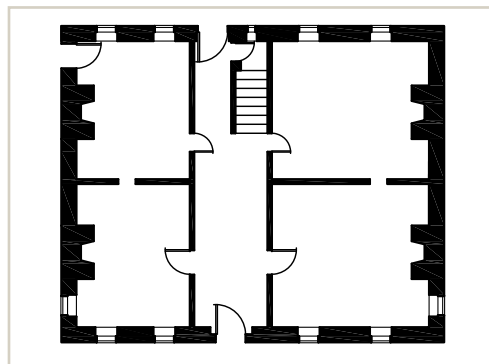
*Left: Penn Plan typical ground floor plan.
Right: At 1250 Valley Creek Road, the Caleb Mercer Farmhouse is representative of a banked Penn Plan dwelling in East Bradford Township.*

Three-Room Plan (Quaker Plan): two-room deep “hall” on one side of house, two smaller rooms, two-deep, on the other. The three-room plan, also called the “Quaker Plan,” is essentially a deeper version of the hall-parlor plan. The front door, located near the center of the front façade, opens into a deep hall that contains the customary cooking hearth and typically a winder stair to the second floor. Across from the deep hall are two parlors, back-to-back, separated by a plastered or wood paneled partition and corner fireplaces. In this plan, the front parlor was a more formal sitting room, while the back parlor had various functions as in the hall-parlor plan.



*Left: A version of a Quaker Plan ground floor.
Right: The original historic core of 145 Lucky Hill Road is very similar to the Quaker Plan type.*

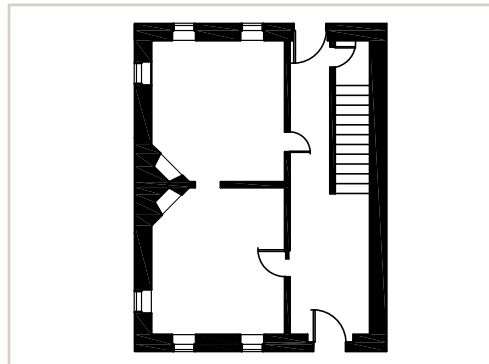
Center-Passage Plan: two rooms wide, two rooms deep, with center passage. The previously described floor plans are yeoman plan-forms, without pretension. Differences in wealth were expressed by the level of finish that embellished basic yeoman plan-types. It was not until the third quarter of the 18th century that center-passage plan houses appeared in the Delaware River Valley, first as country houses for wealthy Philadelphians, and then as farmhouses. By the middle of the 19th century, center-passage plan houses were ubiquitous, as both two-room deep (double-pile) and single room deep (single pile). The center-passage plan house in English colonial America is an adaptation of the Georgian-inspired, *symmetrical* façade, five-bay house found in 18th century England. In England, the form was a village reduction of the large country house, which was also provided with a longitudinal hall that divided the house into quadrants for efficient servant circulation.



*Left: Center-Passage Plan typical floor plan.
Right: The George Little House at 275 South Creek Road is representative of a center-passage plan type in East Bradford Township.*

Side-Passage Plan: two rooms deep, one room wide, with passage running the depth of the house on one side. Like the center-passage plan house, the passage separated visitors from occupied interior rooms, establishing a more formal relationship with guests. The passage extends the full depth of the house, with two rooms on one side. The front façade is always three-*bay*, with a door in one of the end *bays*. And like the center-passage plan the building is 2-1/2 stories high with side gables

Several of these English Colonial *vernacular* dwellings are “additive farmhouses,” built over two or more building campaigns and typically employing the five plan types as the “building blocks” for the additions. For example, a modest hall-plan dwelling might have added to it a hall-parlor plan addition to form a larger dwelling in which the original one-room dwelling became the kitchen for the expanded house.



*Left: Side-Passage Plan typical ground floor plan.
Right: The Thomas Spackman House at 995 Harmony Hill Road is representative of a side-passage plan dwelling in East Bradford Township.*

2.2.2 FEDERAL STYLE (NATIONALLY 1780-1820, VERNACULAR EXAMPLES TO MID-CENTURY)

The Federal style became popular after the American Revolution, and the style is found in abundance in communities that developed during the first half of the 19th century. Federal style buildings are relatively plain, rectilinear and box-like. They are generally oriented with side-gables, with their *ridge* lines parallel to the street. Windows, aligned vertically and horizontally, are *double-hung*, typically with six-over-six *pane sashes*. In Federal style buildings, *cornices* generally have a modest projection, and the principal ornamentation is lavished on the *door surround*, which often features *pilasters*, full *classical entablature* and *transom* window.



The East Bradford Boarding School for Boys at 595 Lenape Road is exemplary of the Federal style in East Bradford Township.

2.2.3 GREEK REVIVAL STYLE (NATIONALLY 1818-1860)

The Greek Revival style came into fashion in 1818, with the Second Bank of the United States in Philadelphia. Modeled after the ancient Greek temple and introduced from Great Britain, the most distinguishing feature of the Greek Revival in America was the temple form with its *pedimented* (triangular) gable front, 30-degree *pitch* roof and large *classical columns* supporting a portico roof. When applied on a residential scale, the Greek Revival was often manifest as distinctive *door surrounds*, *pedimented porches* or front gables and trim profiles. The Greek Revival style was not common in East Bradford Township and Chester County in general, typically attributed to a weaker farm economy during the period.



The Jonathan Paxson Farmhouse at 955 Lenape Road is one of few Greek Revival style dwellings in the Township.

2.2.4 ITALIANATE STYLE (NATIONALLY 1837-1890)

The Italianate style appeared in America circa 1837 as a residential style. Although high-style examples of Italianate “villas” are uncommon, the vocabulary of the Italianate is widespread in American towns, villages and country houses from the second half of the 19th century. In East Bradford, large Italianate style houses were built of brick, signaling a more urban outlook on design.



Few pure Italianate style dwellings are present in the Township, but the former residence, now Bed & Breakfast on Rosedale Avenue is a fine example of the style.

2.2.5 GOTHIC REVIVAL (NATIONALLY 1800-1880)

The Gothic Revival style was a favored style for religious buildings. Residentially, the Gothic Revival style featured steeply *pitched* roofs with deep overhangs, centered or paired cross gables, decorated barge boards and ornamental trusses at the gables and elaborate one-story *porches*. Earlier farmhouses were sometimes updated by adding a cross-gable to the front roof slope, introducing both a gothic revival design element and a large window in the attic.



The Gothic Revival Jacob Price House at 235 Blue Rock Road is a modest representation of the style.

2.2.6 FRENCH SECOND EMPIRE (NATIONALLY 1865-1890)

The French Second Empire emulated forms developed during Napoleon III's reign (1852-1879). The primary feature of American versions of this robust style was the *Mansard* roof which makes full use of the attic space. It does this by wrapping the attic floor height with a short, steep, vertical or curved, *hip roof*, capped by a flat or near-flat central roof. Sizable window *dormers* open the attic for air and light. French Second Empire structures sometimes shared the general *proportions* of the Italianate style and the use of the larger window *panes* available after the Civil War, notably 1-over-1, *double-hung sash*. Buildings were often decorated with *brackets* and other ornamental forms cut out of flat wood.



Originally constructed as a Georgian style dwelling, the 1880 addition of the Mansard roof and dormers transformed the Allerton Farmhouse to an example of the French Second Empire Style.

2.2.7 QUEEN ANNE REVIVAL (NATIONALLY 1875-1890)

The Queen Anne Revival started in England as a highly imaginative adaption of the late 17th-century styles, into larger, richly textured, highly decorated houses of complex shapes. The American examples were perhaps less literal and more fluid, but used similar methods to achieve the overall picturesque effect. Characteristics of the Queen Anne Revival style include wrapping *porches*, corner turrets, varied wall textures, overlain gables and gable-end trusses.



The William Ingram House at 945 Sconnelltown Road, now complete with its period color scheme, is a fine example of the Queen Anne Revival style dwelling in the Township.

2.2.8 SHINGLE STYLE (NATIONALLY 1880- 1900)

The Shingle style was an American adaptation of other styles, including the irregular forms and *porches* of the Queen Anne Revival, the gambrel roofs, *classical columns* and *Palladian* windows of the Colonial Revival, and the arched masonry openings of the Romanesque Revival. East Bradford's examples of the style were designed by the prominent Philadelphia architect, Frank Miles Day, as a cluster of country houses. The most prominent quality of the style, not surprising, is the wood shingle siding, as well as corner turrets, gambrel roofs and shed roof *dormers* in steeply *pitched* roofs. Associated with the seaside and mountains, the style is rare in Chester County.



The Francis Kennedy House is the largest of several Shingle style residences constructed in the 1890s as part of the Bradford Hills neighborhood along Highland Road at the north edge of the Township.

2.2.9 COLONIAL REVIVAL STYLE (NATIONALLY 1880- PRESENT)

The Colonial Revival style grew out of the Centennial Exhibition of 1876, and flourished for numerous building types in the first half of the 20th century. The style was based on colonial building forms, but elements were enlarged, accentuated and combined in new ways.



The Gawthrop House at 800 Sconnelltown Road is representative of the Colonial Revival style through its five-bay two story gabled form and bay window details.

2.2.10 DUTCH COLONIAL REVIVAL STYLE (NATIONALLY 1900-1930)

A variant of the Colonial Revival style, the Dutch Colonial Revival style is recognized by its gambrel roof form, shed *dormers* and typically modest size.



A few Dutch Colonial examples can be found on the east edge of the Township, including this dwelling at 718 Price Street.

2.2.11 BUNGALOW (1905-1930)

The bungalow style, also called the craftsman style, was exclusively a residential design. Characterized by a low-*pitched*, gable roof with deep overhangs and ornamental projecting *eave brackets* or rafter extensions, bungalows typically featured deep *porches* with heavy *columns*.



Also found on Price Street is a good example of a modest Bungalow dwelling at the corner of Price and Bradford.

2.2.12 MID-TWENTIETH CENTURY STYLES (1930 TO 1970)

Several modest architectural styles dominated residential construction in the mid-20th century. The two styles found most commonly in East Bradford are the Ranch and the Split Level. Ranch houses were particularly common in this area from circa 1945 to 1960 and were constructed as single-story buildings with a long rectangular shape with a low-*pitched hipped roof* and may feature an oversized central chimney. Ranch houses of the 1950s frequently used a brick veneer for the lower half of the walls (the “apron”) and stucco for the upper half of the wall surface. The walls often included a picture window for the living room and a slightly recessed entrance. Split Level houses were a common residential building type in Pennsylvania tract housing from 1955-1970. The key feature of the Split Level is the presence of a mezzanine-like level in one end of the house. The building type was originally a means of taking advantage of a sloped building lot, but as it gained popularity, its divided floor levels gained a specific sense of place.



Examples of the Ranch and Split Level styles can be found in East Bradford Township on Darlington Drive off of Lenape Road.



Abiah Taylor Farm, Taylor-Cope Historic District. Photo courtesy of the Library of Congress.

3 THE DESIGN REVIEW PROCESS

INSIDE:

- 3.1 INTRODUCTION
- 3.2 HISTORIC RESOURCES
 - 3.2.1 CLASSES OF HISTORIC RESOURCES
 - 3.2.2 HISTORIC RESOURCES: DEMOLITION PROTECTION
 - 3.2.3 HISTORIC RESOURCES: DESIGN REVIEW
- 3.3 REGISTERED HISTORIC DISTRICTS
 - 3.3.1 HISTORIC DISTRICTS: DEMOLITION PROTECTION
 - 3.3.2 HISTORIC DISTRICTS: DESIGN REVIEW
- 3.4 PRE-APPLICATION REVIEW
- 3.5 APPLICATION SUBMISSION
- 3.6 REVIEW BY THE HARB OR HISTORICAL COMMISSION
- 3.7 REVIEW BY BOARD OF SUPERVISORS

3.1 INTRODUCTION

These Design Guidelines and Article XX - Historic Resource Protection Standards of the Zoning Ordinance form the basis for the review of applications that come before the Historical Commission and Board of Historical Architectural Review (HARB). The Historical Commission reviews applications relating to Class 1 historic resources outside of certified historic districts, and the HARB reviews applications for properties inside of certified historic districts.

Article XX combines the protection of Class I, Class I DOE and Class II historic resources and provisions for certified historic districts into a single ordinance. Review criteria for historic resources and properties within certified historic districts, however, differ, as delineated in the Ordinance and summarized in this chapter.

The design review process consists of the following steps:

- Pre-application review with applicable advisory board (optional but highly recommended)
- Application submission
- Review by the Historical Commission or HARB
- Review by the Board of Supervisors

Generally, the design review process takes about four to six weeks to complete, and applicants should consider this timeframe when planning and scheduling their projects. For projects involving significant changes to a Class I Resource or a structure within a certified historic district such as major façade alterations, construction of additions, new construction or demolition, a pre-application review is highly recommended. Applicants should allow a minimum of three weeks for this step. It is also recommended that applicants retain the services of a design professional for major projects.

3.2 HISTORIC RESOURCES

The Historical Commission administers the review of proposed demolition of any Class I, Class I DOE or Class II historic resource and also reviews all exterior alteration and additions to Class I historic resources that are outside of the certified historic districts of East Bradford Township. HARB reviews all applications including new construction, exterior alterations and additions to historic resources located in a certified historic district. HARB also reviews demolition requests for historic resources located in certified historic districts.

3.2.1 CLASSES OF HISTORIC RESOURCES

A building, structure, object, ruin or site is considered historic based on its architectural design, age and integrity. Historic resources are properties that are listed in the East

Bradford Township Historic Resources Inventory and the Historic Resources Map, classified by significance as one of the following:

- CLASS I: Generally, buildings listed on the National Register of Historic Places or which have received a Determination of Eligibility (DOE) for National Register listing.
- CLASS I DOE: Buildings, sites, structures and objects included in the Historic Resources Inventory of the East Bradford Historical Commission meeting Class I historic resource criteria, but where the Board of Supervisors has agreed to Class I DOE designation at the request of the property owner(s) of the affected property or properties. Regulations applicable solely to Class I historic resources shall not apply to Class I DOE historic resources.
- CLASS II: Buildings, sites, structures and objects included in the Historic Resources Inventory of the East Bradford Historical Commission not meeting Class I historic resource criteria, but determined to be of historical or architectural significance to East Bradford and appropriately documented to that effect by the East Bradford Historical Commission.

3.2.2 HISTORIC RESOURCES: DEMOLITION PROTECTION

All resources are subject to a demolition review process. This section applies to the demolition of resources outside of a historic district. A complete application, in accordance with Chapter 115-125 of the Township code, shall be submitted to the Zoning Officer. The Historical Commission will review a complete application for demolition within 45 days of receipt. Following thorough review of the application the Historical Commission will forward one of three recommendation options to the Board of Supervisors: Denial of the application, delay of the proposed demolition (60 days for Class II and Class I DOE, 90 days for Class I) or approval of the proposed demolition. If delay of demolition is imposed by the Board of Supervisors and additional information is required to be submitted for review, the Historical Commission will review the application again at the end of the delay period and issue a recommendation for approval or denial of the supplemented application. The Zoning Ordinance also includes provisions prohibiting demolition by neglect.

3.2.3 HISTORIC RESOURCES: DESIGN REVIEW

- CLASS I Resources: Subject to exterior design review of any change to the exterior, including alterations and additions, under the Secretary of the Interior's Standards for Rehabilitation. Ordinary maintenance and *in-kind* repairs are exempt from review.
- CLASS I DOE and Class II Resources: Not subject to design review unless within a certified historic district (see Section 3.3)

3.3 CERTIFIED HISTORIC DISTRICTS

The Board of Historical Architectural Review (HARB) administers the review of proposed demolition, exterior alterations and additions and new construction to all properties within certified historic districts. Historic districts are indicated on the East Bradford Historic Districts Map and are either listed as National Register Districts or National Register Districts certified for Act 167 review. At the time of publication, the only historic districts certified for Act 167 review by HARB in East Bradford Township are the Taylor-Cope Historic District and the Strode's Mill Historic District.

The HARB is an advisory board to the Board of Supervisors, and all HARB recommendations for a Certificate of Appropriateness for demolition, exterior alterations, additions or a new building within the certified historic district require approval by the Board of Supervisors. The Board of Supervisors may concur with the HARB or may overturn the decision of the HARB, either in support of or in opposition to the application. The applicant may appeal a decision of the Board of Supervisors as provided by law.

3.3.1 HISTORIC DISTRICTS: DEMOLITION PROTECTION

For demolition proposals that fall within certified historic districts, the HARB will follow the process identified in Chapter 115-130C of the Township code.

3.3.2 HISTORIC DISTRICTS: DESIGN REVIEW

All properties within a certified historic district are subject to design review. Under the ordinance, "Contributing" and "Non-Contributing Resources," as identified in the district National Register Nomination, are subject to design review under Chapters 115-130. Empty lots ("sites") are subject to the same review criteria as buildings.

3.4 PRE-APPLICATION REVIEW

A pre-application review is strongly encouraged for projects comprising major alterations, new construction or additions within a certified historic district or a proposed addition to a Class I historic resource. The purpose of the pre-application review is to acquaint the HARB or Historical Commission with the general scope of the proposed project, and to allow opportunity for discussion of the broad parameters of the project and the design prior to the applicant's investment of time and costs in the specific details of the design. A pre-application review is voluntary and does not require a formal application submission. However, for a major project involving any historic resource, preliminary sketches must be submitted to the Historical Commission at least seven calendar days prior to the Historical Commission's regularly scheduled monthly meeting. For preliminary submissions to the HARB, which meets on an as-needed basis, for a property within a certified historic district, the HARB will aim to meet within 30 calendar days of a preliminary submission.

During pre-application review, the applicant can provide a single design proposal or present several design options for discussion. The pre-application review process saves the applicant the time and expense of developing a complete submission for a final design that may not be approved. If, for example, an applicant was interested in demolishing a historic farmhouse and replacing it with a new suburban development dwelling, the pre-application review process would alert the applicant to the likely HARB's or Historical Commission's opposition to the demolition, potentially saving the applicant the cost of design services for the new residence. A favorable preliminary design review, on the other hand, streamlines the formal review process.

3.5 APPLICATION SUBMISSION

Applicants must complete a Historical Commission application or Historical & Architectural Review Board application, as applicable, and submit it to the Zoning Officer at least seven days prior to the Historical Commission's regularly scheduled monthly meeting or at least 30 days prior to a requested hearing of the HARB. The required application package should include, as applicable:

- The completed application form.
- Photographs of the structure showing the part or parts to be altered, as well as photographs of the entire façade and the buildings in the immediate surrounding area.
- A *site plan* showing existing buildings and their relationship to roads and neighboring buildings. For projects in which no addition or site work is proposed, an aerial photograph will be adequate.
- Architectural drawings, drawn to scale, including exterior *elevations* and plans, as applicable, of the proposed alterations. For component replacement projects such as replacement windows or roofing, photographs may be acceptable when supported by product detail drawings. Drawings should be of sufficient detail to show exterior design elements, materials and dimensions.
- For manufactured products, copies of manufacturers' literature showing products and items to be incorporated into the work.
- Material and paint samples as applicable.
- Historical photographs where supportive of the application.
- The applicable application review fee.

The Historical Commission or HARB may opt to not consider an incomplete application.

3.6 REVIEW BY THE HARB OR HISTORICAL COMMISSION

The Historical Commission considers each application at its regular monthly public meetings. The HARB schedules hearings only upon receipt of an application. Meetings and hearings are public and applicants are encouraged to attend these meetings to present their projects and to address questions from the HARB or Historical Commission. By not attending the meeting, an applicant risks the potential tabling of an application for lack of information or consent to conditions proposed by the Historical Commission or HARB.

Following the review of an application, HARB may recommend:

- Approval, as presented, of a Certificate of Appropriateness
- Approval, subject to conditions, of a Certificate of Appropriateness, or
- Denial of a Certificate of Appropriateness.

The Historical Commission may recommend:

- Approval of an application as presented,
- Approval of an application subject to conditions, or
- Denial of an application.

Either Board can also table an application due to incompleteness or may table an application at the request of an applicant.

The HARB and Historical Commission diligently strive to avoid recommending denial of an application by suggesting design alternatives, and by allowing the applicant to revise the design and present again at a future meeting. To the extent allowed by the state enabling legislation, the HARB and Historical Commission may consider the financial limitations of an applicant. Every recommendation made by the HARB and Historical Commission becomes part of the public record. For applications that are recommended for approval or denial, a written Recommendation is provided to the Board of Supervisors for consideration.

3.7 REVIEW BY BOARD OF SUPERVISORS

The Recommendation for approval by the HARB or Historical Commission is reviewed by the Board of Supervisors. The Board of Supervisors uses the same criteria as the HARB or Historical Commission in evaluating the recommendation. An applicant may attend the Board of Supervisor's meeting to comment on his or her application. For applications recommended for denial or approval with conditions by the HARB or Historical Commission, the applicant may appeal to the Board of Supervisors to reverse the recommendation of the HARB or Historical Commission.

The Board of Supervisors officially votes to approve or disapprove each of the recommendations made by HARB and the Historical Commission at its official monthly meeting.

Following the vote by the Board of Supervisors, the Zoning Officer sends a letter to the applicant informing him or her of the decision of the Board of Supervisors. For an approved application, the letter authorizes the applicant to apply for a building permit (if required under local laws) to perform the proposed work as presented or with specified conditions. If the Board of Supervisors denies the application, the letter indicates the reasons for denial.



Springhouses and other outbuildings on historic properties are subject to review by the applicable advisory board.



Character defining building materials of historic resources typical to East Bradford Township, such as slate shingles, log assemblies, wood shingle siding and pointed stone masonry, should be preserved.

4 QUALITIES OF TRADITIONAL ARCHITECTURE

INSIDE:

- 4.1 INTRODUCTION
- 4.2 BUILDING MATERIALS
- 4.3 MASSING
- 4.4 ORDER
- 4.5 PROPORTION
- 4.6 RHYTHM
- 4.7 SCALE

4.1 INTRODUCTION

While architectural styles contribute to the richness and understanding of historic places, stylistic features in East Bradford Township were often applied to basic *vernacular* building forms rather than being integral to their original design. These basic building forms – the side-gabled stone farmhouse or the bank barn, for examples, are the fundamental elements that give the historic architecture of East Bradford Township its character. Therefore, when evaluating proposed changes to existing buildings or proposed new buildings in a rural historic setting, the qualities of the basic building forms and materials are more significant than the applied stylistic features.

That said, architectural styles are important when evaluating 19th- and 20th-century, revival-style dwellings, where the architectural style often relates closely to building form – including roof shapes, roof features and building *masses*. In East Bradford Township, these dwellings largely occur as individual properties and are identified as Class I, Class I DOE or Class II historic resources.

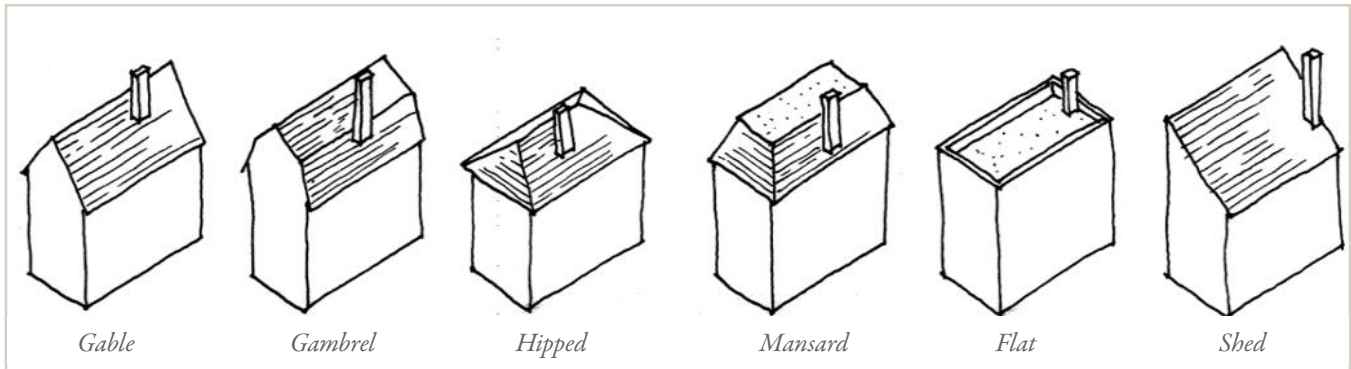
To preserve an individual building, the architectural character and stylistic elements of the building must be identified and either maintained or restored. To preserve a historic district, the architectural character of each proposed new structure and addition must be compatible with the existing historic building and neighboring historic buildings. The architectural character of a building refers to the qualities of *massing*, scale, *proportion*, order, *rhythm* and materials. These qualities are related first to the architectural form of the building and secondly to the stylistic elements of buildings. Each application for a change to an existing building or for a new building should be evaluated using these qualities, which are defined in this chapter.

4.2 BUILDING MATERIALS

The historic buildings of East Bradford Township were constructed of traditional building materials, including fieldstone, stucco-plastered stone, painted wood walls, slate or wood shingle roofing and painted metal roofing. The repeated use of these traditional materials throughout the historic agricultural landscape creates an architectural cohesiveness and harmony that gives the architecture of the Township much of its distinctive character.

4.3 MASSING

Massing, also referred to as architectural form, is the overall volumetric shape of a building. The *massing* of a building may be described as large or small, simple or complex. The *massing* of a building is defined by the volume formed by the exterior walls, roof shape and appendages such as *porches*, projecting *bays*, towers, *dormers* and *cupolas*. In a historic setting, *massing* is the single most important characteristic to consider in the evaluation of proposed additions and new construction. A large new building set in a context of uniform-size, smaller, historic building blocks is visually disruptive because the continuity of the historical pattern is broken. Roof forms in a residential *streetscape* are highly visible and contribute significantly to the shape of a building.



The roof form contributes to the volumetric shape of a building. All of these roof shapes are found in East Bradford.



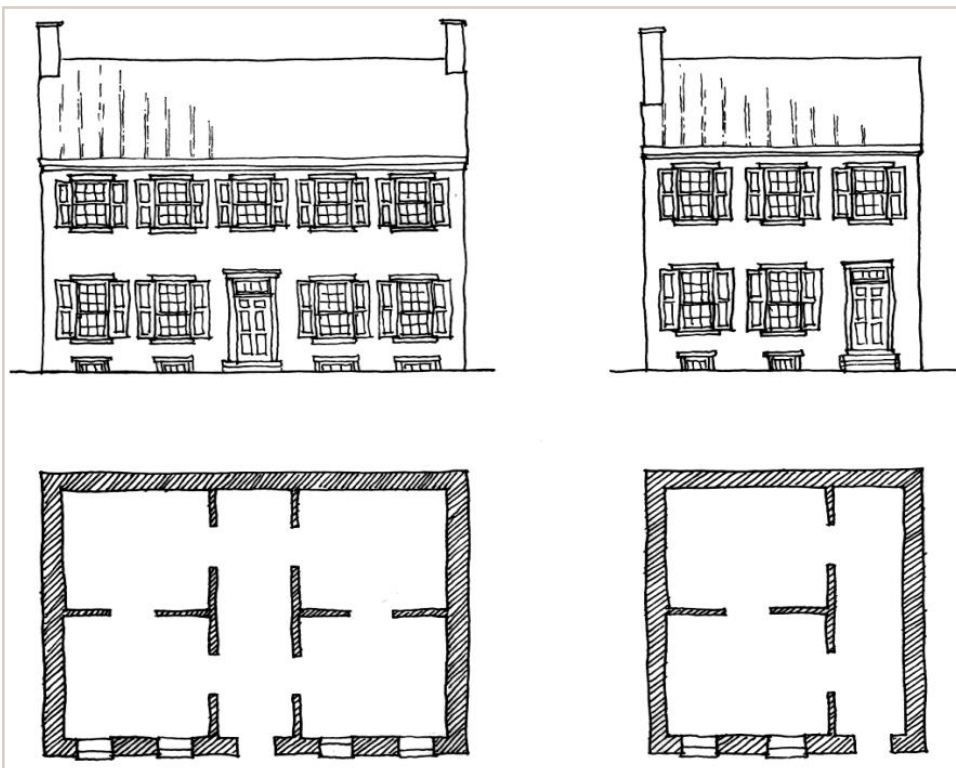
Blue Rock Farm, Allerton Road. Massing of typical barn complexes may be described as complex, with several geometric volumes that are skillfully integrated.



Cope's Bridge Farmhouse has a completely symmetrical and highly ordered façade.

4.4 ORDER

Order in architecture is the arrangement and relationship of parts of a building. A *symmetrical* building façade—one where a center door is flanked by an equal number of windows on each side of the door—is highly ordered. The front façade of Cope's Bridge Farmhouse is *symmetrical* and clearly ordered. Windows that align vertically are ordered; their placement is based on a rational structural and visual order. An *asymmetrical* façade is less formal than a *symmetrical* façade, but may also be highly ordered. For example, the façade of a side-hall plan house has an arrangement of vertically-aligned door and window openings that directly relate to the arrangement of hall and rooms inside.

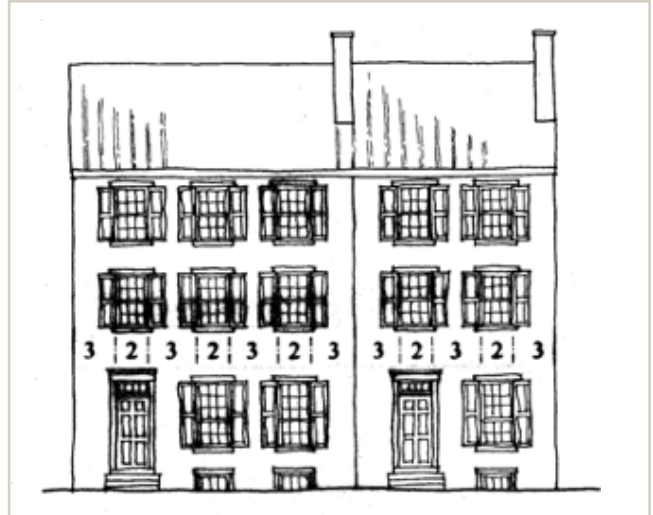
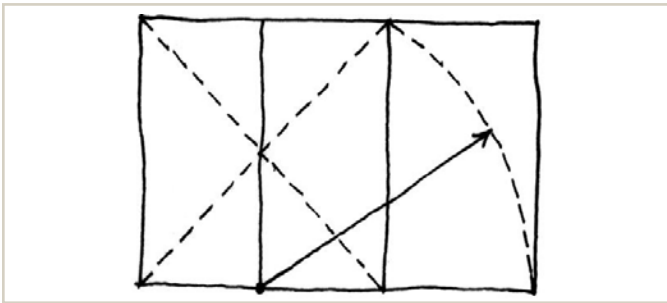


The center-hall plan house, with its symmetrical façade, is highly ordered. The side-hall plan house, although lacking a symmetrical façade, is also a formal, ordered plan-type in which the doors and windows of the front façade are uniformly spaced and directly related to the floor plan inside the building.

4.5 PROPORTION

Proportion in architecture is the relationship among the dimensions of the various building elements and the individual features to each other. Architectural harmony is achieved in a building façade when façade elements are *proportional* to each other and to the overall façade. “The purpose of *proportion* is to establish harmony throughout the structure—a harmony which is made comprehensible either by the conspicuous use of one or more of the [classical] orders as dominant components or else simply by the use of dimensions involving the repetition of simple ratios.” (John Summerson, *The Classical Language of Architecture*, Cambridge, MA: MIT Press, 1963, page 8.)

One of the oldest systems of *proportion* is the Golden Section, which was devised in ancient Greece. The Golden Section is a rectangle with a width to length ratio of about 5:8, proportions that are an ideal ratio in western art and architecture. In architecture, the use of repeated proportions creates a harmony in a building façade. The overall proportions of the façade are repeated in façade elements such as doors and windows.



Above: The spacing of window and wall on a façade creates a rhythm that repeats itself from building to building. The spacing of buildings along a street also creates a rhythm. Left top: The Carter-Worth House on Lucky Hill Road is symmetrical and highly ordered, and also maintains a consistent rhythm across its façade. Left bottom: The Golden Section formed by arcing the diagonal of half a square, creates a ratio of about 5:8. This shape recurs in western art and architecture.

4.6 RHYTHM

Rhythm in architecture is the pattern and spacing of repeating elements such as windows, *columns*, arches and other façade elements. Almost all buildings are made of elements that repeat themselves such as alternating vertical bands of brick wall and windows, as well as alternating horizontal bands of brick wall and windows. The spacing of buildings in a historic *streetscape* also creates a *rhythm*.



Morris Cope House, Copeland School Road. The rhythm, order and symmetry is consistent across both blocks of this early dwelling.

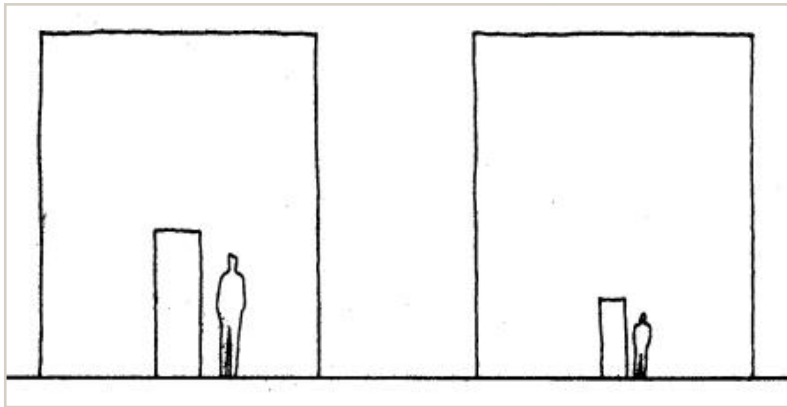
4.7 SCALE

Scale in architecture is a measure of the relative size of a building or building component in relation to a known unit of measure or customary size for such a component. A person evaluates how large a building or building component is in relation to the human body size and his or her memory of the expected size for such a component. For example, a sense of the size of a wood-frame building can be established because of the width of a clapboard, which is usually about five inches. Doors and windows are scale-giving features on all buildings. Residential doors are typically slightly higher than the height of a tall person, or roughly seven feet high. *Double-hung sash windows* in historic buildings are typically five or six feet tall, the height of an average size person. If the size or shape of a familiar building component diverges from the expected, it may be said to be “out of scale.”

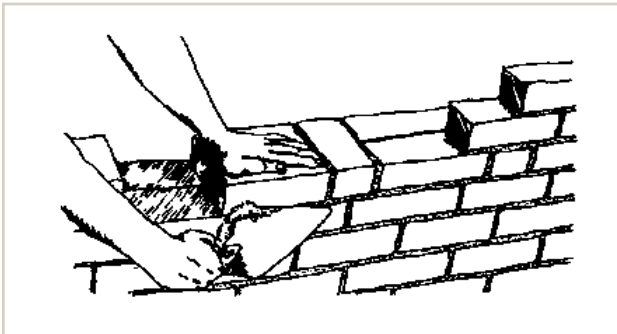
The principle of scale applies both to individual buildings and to *streetscapes*. In a village setting, where each building forms part of a larger *streetscape*, building scale is of paramount importance. In the hierarchy of social order in a community, prominent buildings such as churches, civic buildings and any “mansions” differentiate themselves by contrasting with the predominating building form. The perceived scale of any proposed building or addition is a function of:

- a. the overall size of the proposed new construction relative to existing building sizes, and
- b. the visual relationship of building façade elements in the new construction relative to the visual relationship of building façade elements in existing buildings.

Outdoor spaces—formed by the buildings, fences, fields and vegetation that surround them—also have scale. The historic village *streetscape* with its narrow streets, small gardens and garden walls, finely-textured architecture and intimate natural setting is of a human scale. The scale of buildings in a traditional village creates a clear hierarchy of building significance. Likewise, a farmstead, with its house, barn and outbuildings create a recognizable scale in the rural landscape.



The scale of a building refers to its size and the size of building components relative to the size of a human. In a building of monumental scale, such as a large courthouse, a human is dwarfed in comparison to the size of the building and its elements. We use scale to estimate the size of a building or building element. In both diagrams, the door appears to be slightly taller than a human form, say seven feet. With that assumption, the wall in the left diagram may be estimated as slightly higher than two times the door height, while in the right diagram, the wall is several times as high as the door opening.



The common brick is scaled to the human hand.



Many buildings in East Bradford Township, including this resource on Birmingham Road in the Strode's Mill Historic District, were added to very early. These additions are significant changes that should be preserved. In this example, the two-bay serpentine stone wing on the right was added to the original three-bay stone farmhouse in 1800.

5 GUIDELINES FOR PRESERVING HISTORIC BUILDINGS

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5.1 GENERAL GUIDELINES FOR PRESERVING HISTORIC BUILDINGS

The following guidelines are applicable to all Class I, Class I DOE and Class II historic resources and to all buildings in certified historic districts in East Bradford Township, including outbuildings such as carriage houses, farm buildings and garages.

5.1.1 BUILDING CHANGES

Significant changes to a historic building take place over time and are evidence of its history. In historic districts, significant changes are defined as those that took place within the period of significance of the district or village. Such changes reflect the evolution of the building to accommodate evolving owner needs and changes in lifestyle or technology. Historically significant changes should be preserved.

5.1.2 DETERIORATED AND MISSING COMPONENTS

Deteriorated or missing significant architectural components should be replaced or recreated with materials that replicate the historic design, color, texture and other visual qualities of the components. Replicate components should generally be fabricated from traditional materials. However, for painted woodwork, substitute materials that are field-painted, such as plastic composites and solid PVC, may be employed. For missing components, efforts should be made to determine the original design of the component through physical evidence or historic pictorial evidence of the building. If the original design is unknown, a component that is appropriate to the type and style of the building's architecture should be used.

5.1.3 IMMEDIATE NEIGHBORHOOD

In planning for an alteration, addition or new building, the immediate neighborhood of the property should be considered as the context for the design. The immediate neighborhood, also known as *historic context*, is defined as the buildings flanking the subject property (building) and the three buildings across the street.

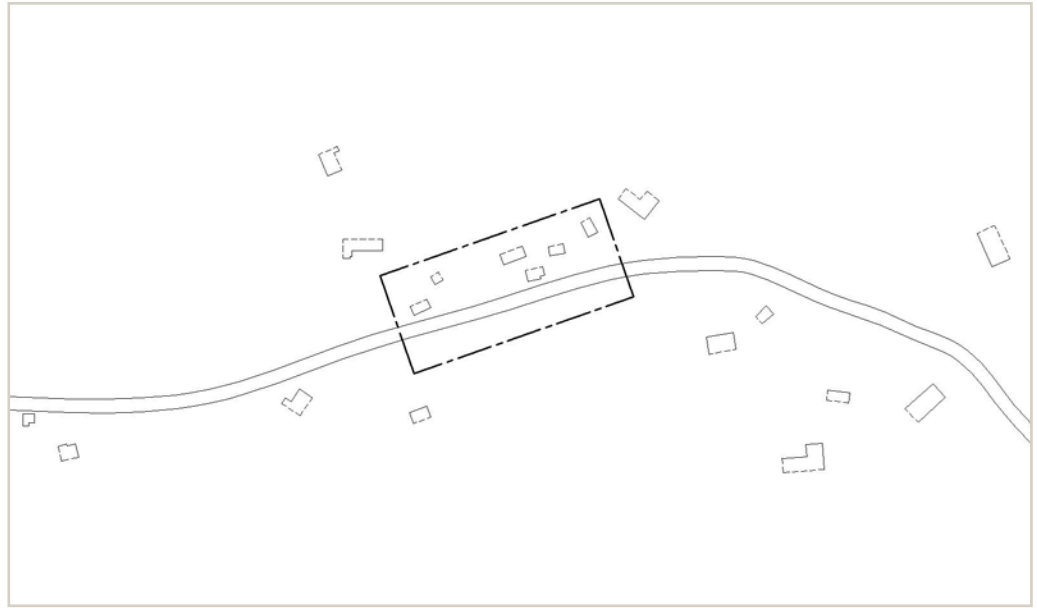


Diagram of “immediate neighborhood” for a rural or village location.

5.1.4 PRIMARY FAÇADES

In planning for an alteration, addition or new building, primary *façades*—which are most visible to the public—should receive the highest level of design treatment and detail. A primary façade includes the front and highly visible side façade of a building. A secondary façade includes a rear façade and nominally visible side façade.

5.1.5 PRESERVING ARCHITECTURAL CHARACTER

Historic architectural character results from a combination of original design and craftsmanship, the effects of weathering and changes made over time. This character should be maintained or restored in the course of planning for repairs and rehabilitation. Proposed repairs and changes to historic structures should not reduce the integrity of a structure nor result in the loss of character-defining historic fabric.

5.1.6 REVERSIBILITY

Proposed changes to historic buildings should be reversible whenever possible. Applying stucco over stone masonry is not recommended for several reasons, including the fact that the removal of stucco is extremely difficult if not irreversible. For severely deteriorated windows, it is recommended to replace only the *sashes* while restoring the frames in place, because the retained frames allow a future property owner to reconstruct the original appearance of the windows.



*Left & Center: Sequence of restoration of a severely deteriorated cornice return. The crown molding was custom-cut for the project, a procedure that requires scheduling but does not add significantly to the repair cost.
Right: Repair, restoration or replicate components should be employed when character defining features like porch posts and brackets are deteriorated, as seen here at this in- progress restoration.*

5.1.7 REPAIR AND RESTORATION VERSUS REPLACEMENT

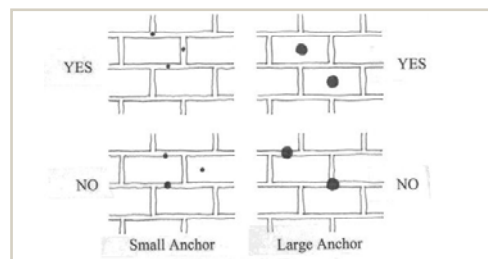
It is recommended that existing original materials and significant components be retained wherever possible by stabilizing, repairing or matching them with compatible new materials rather than by replacing them. If, due to severe deterioration or loss, historic components must be replaced, new components should replicate the profiles, dimensions and material of the original components. The historic architectural character of structures should be maintained or restored. When it is necessary to replace components that are not original, replacement employing the original materials and designs should be considered. Proposed repairs and changes to historic structures should not reduce the integrity of a structure nor result in the loss of repairable historic building fabric.

5.2 SPECIFIC GUIDELINES FOR PRESERVING HISTORIC BUILDINGS

The following guidelines apply to major maintenance, repairs, alterations and restoration of existing, contributing buildings in certified historic districts and Class I historic resources, and are based on the Secretary of the Interior's Standards for Rehabilitation (see Appendix). The specific guidelines are listed in alphabetical order.

5.2.1 ANCHORING DEVICES

When attaching new items such as signs, sign *brackets*, light fixtures, door bells, security equipment, building identification numerals, awnings, flagpole *brackets* and other devices to existing historic building materials, care should be taken to minimize permanent damage to the historic building materials. Attachment to plain wood surfaces is preferable to attachment to masonry, because at a future date when the item is no longer required, the anchor or fastener can be removed and the resultant hole patched and repainted without harm. When attachment to brick or stone masonry walls is necessary, anchors should be embedded in mortar joints wherever the joint width accepts the anchor without damaging the edges of the masonry unit. When existing mortar joints are less than 3/8-inch wide joints, anchors should be embedded in the stone or brick unit at least 1 inch away from the mortar joint to prevent damaging two stones or bricks at each anchor.



Anchoring devices for the support of signs and other wall-mounted items should be anchored with minimal damage to historic wall materials. In masonry walls, small anchors should be inserted in the mortar joints, while large anchors should be held back from the mortar joint, not overlapping the joint.

5.2.2 BARN AND CARRIAGE HOUSE CONVERSIONS

A barn conversion, defined as the adaptive use of a barn as a residence, studio, office or other use, is a means of preserving a building that may otherwise be obsolete. For an agricultural community, preserving historic barns and farmsteads is a high preservation priority, and at times the only viable option for a barn may be adaptive use. The most compatible adaptive use for a barn building is a warehouse or an open workshop that does not require subdivision of the interior space. When more intensive uses are applied to a barn, such as commercial office space or a dwelling, the technical difficulties of insulating the walls and roof as well as providing natural daylight to many small spaces sometimes compromises the integrity of the barn.

New door and window openings in historic stone walls are highly discouraged because of the permanency of the alteration. Instead, new window and door openings should be placed in wood frame walls, and arranged in bands or clusters that visually emphasize the height and width of the wood frame wall panel. Where possible, the threshold-floor door opening should be entirely infilled with windows. "Punching" individual window openings into barn walls, especially openings that do not follow a strict grid layout, is not recommended because such openings diminish the massive simplicity of the barn.



Converting a barn to residential or commercial use requires careful planning to preserve its historic integrity. Openings for new doors and windows should be made only in wood-sided portions of the barn, and arranged in clusters or bands to visually reinforce the simple volume and openings of the barn. Though a few new openings were created at Baldwin's Book Barn, the masonry volume has remained substantially intact.

5.2.3 DOORS AND DOOR HARDWARE: HISTORIC

Historic doors should be preserved by means of repair and restoration. Unique features such as leaded glass, *fanlights* and *sidelights* should also be preserved. Where the severity of door deterioration dictates replacement, new units should match the historic units in design, dimensions and pane configurations.

Where historic wood exterior doors are severely deteriorated or missing, replacement doors are appropriate. Options for replacing historic wood exterior doors include the following:

- Replace with replicate, custom-size wood door. Custom wood doors are readily available from architectural woodworking shops.
- Replace with stock wood door of same dimensions and similar design. This option is recommended only when available stock wood doors can be fitted to existing door openings.
- Replace with stock fiberglass or composite door of same dimensions and similar design. Similar to a replacement stock wood door, this option is recommended only when available stock fiberglass or composite doors can be fitted to existing door openings.
- Not recommended: Insulated steel door and frame; pre-hung wood or fiberglass door and frame set in existing opening.

Visible door hardware should be compatible with the architectural character of the building. The preservation and repair of historic door hardware is encouraged. Buzzers, intercoms and mailboxes should be selected and located to have minimum visual impact on building entrances.



Doors and door hardware that are characteristic of a resource should be preserved. Left: Distinct panel configurations of historic entrance doors, like this eight-panel door on Harmony Hill, should be preserved. Center: The six-light configuration of this storm door on Price Street allows the historic panel configuration of the entrance door to remain visible and matches its color. Right: Mill finish aluminum storm doors that obscure the design of historic doors are not recommended.

5.2.4 DOORS: STORM AND SCREEN

The paneled front door was a symbol of hospitality and security. When a storm door is required to further protect the front door opening, the storm door design should be simple and should allow the historic door to be visible. While wood storm and screen doors are preferred, simple aluminum doors that are finished with a baked enamel finish matching the historic wood door paint color are also acceptable. Scalloped edges and cross-buck patterns on aluminum storm doors are not appropriate.

5.2.5 LIGHTING: EXTERIOR

Where historic light fixtures survive, they should be preserved. Reproduction exterior light fixtures on historic structures should be compatible with the historic period of the structure and in scale with the building. Polished brass, “colonial style,” and other overly ornamental light fixtures are not recommended for the primary façades of historic buildings. For historic periods before electric lighting (pre-1879), a concealed electric light source, or a very simple fixture is encouraged. A reproduction fixture from the wrong period is not recommended. If exposed conduit cannot be avoided, it should be painted to match the background material on which it is mounted. In addition to these guidelines, all new lighting is required to comply with the East Bradford Township lighting ordinance, Chapter 115-57. Exterior floodlights and spotlights should be avoided on principal façades. Lighting for signage on historic buildings should be inconspicuous and should be restricted to reasonably low light levels. Yard lighting and parking lot lighting should be post-mounted on maximum 12-foot high posts, or mounted on a secondary façade. High efficiency light fixtures that produce yellowish or pinkish light are not recommended at highly visible locations.

5.2.6 MASONRY: CLEANING

Cleaning of historic brick, stone and terra cotta masonry should be done using the gentlest methods possible. Destructive techniques such as sandblasting, harsh chemical cleaning and high-pressure water washing are not recommended. Water washing, with or without mild detergent cleaners, is generally effective and safe for historic masonry surfaces. Water pressure should be limited to 600-pounds-per-square-inch (PSI), using a 15-degree spray tip held six inches from the masonry surface. Specialty cleaners may be required for the most tenacious stains, but are only recommended for application by highly-skilled historic masonry cleaning contractors. Muriatic acid is never appropriate for cleaning historic masonry.

5.2.7 MASONRY: PAINT REMOVAL

Generally, the complete removal of paint from historic masonry is not appropriate. Historically, masonry buildings were painted only if the exposed masonry units could not withstand exposure to the weather and were deteriorating. If, during a restoration project, an owner desires to remove paint from stone or brick walls, a test panel should be conducted to assess the condition of the original stone or brick below and to confirm that the masonry below will not be damaged by the paint removal process. If the building has been painted for several decades, an owner may elect to repaint the structure. Dry-grit blast cleaning (sandblasting) is never recommended, because it causes irreversible damage to historic masonry surfaces. Paint removal should be accomplished using an environmentally-friendly paint stripper. If the paint coating is pre-1972, it should be removed using a chemical system in which the applied paint stripper is covered with a laminated paper sheet and the stripper and sheeting are removed together.

5.2.8 MASONRY: REPOINTING

To preserve historic masonry, periodic maintenance is required. Natural stone and brick vary in hardness and durability, but generally have a long service life, while mortar joints deteriorate and require periodic renewal. Where repointing is required, care should be taken to ensure that the stone or brick is not damaged in the process of removing deteriorated pointing. For wall areas to be 100 percent repointed, the new mortar should match the color, texture and tooling of the original mortar, not the appearance of the surface dirt on weathered pointing. For spot pointing, new mortar should match the darkened color of surrounding mortar. For brickwork, the new pointing should be slightly recessed, flat joint profile unless there is evidence for an original recessed or grapevine joint profile. For stonework, the profile of new pointing should match the profile of original pointing. Deeply struck (recessed) and concave joint profiles are generally not appropriate, except where replicating 20th-century pointing. For brickwork, a slight recess is important in order to prevent the mortar from smearing onto the face of the bricks, which results in an enlarged joint width that is both unsightly and historically inappropriate.

New pointing should not have a high Portland cement content. Mortars rich in Portland cement are harder and less permeable than historic masonry units, causing damage to the historic brick or stone. Recommended repointing mortar mixes for historic buildings and masonry walls are dependent on specific conditions at each building, including the type and quality of the stone or brick, the mortar joint profile and the condition and appearance of existing mortar. Although specific conditions may indicate a softer mortar mix, the following mixes are generally appropriate for historic masonry in good condition:

Historic stone and brick walls:

- 1 part by volume white Portland cement
- 2 parts by volume hydrated lime
- 6 parts by volume selected sand.

OR:

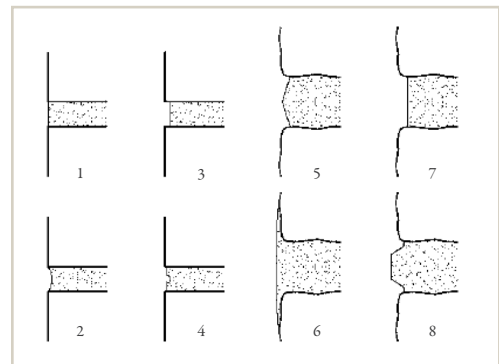
- 1 part by volume natural hydraulic lime
- 3 parts by volume selected sand

Historic stone and brick chimneys:

- 1 part by volume white Portland cement
- 1 part by volume hydrated lime
- 5 parts by volume selected sand

OR:

- 1 part by volume natural hydraulic lime
- 3 parts by volume selected sand



New mortar joint profiles should match the pattern of original pointing. Brick joint profiles shown are 1) flush, 2) concave, 3) slightly recessed, struck flat and 4) scribed. Stone joint profiles shown are 5) shallow raised ridge, 6) parge pointing (appropriate only where matching existing parge pointing), 7) slightly recessed, struck flat and 8) raised ribbon.

5.2.9 MECHANICAL, ELECTRICAL AND COMMUNICATIONS EQUIPMENT

The mounting of ventilation louvers, registers, exhaust fans, alarm devices, cable boxes, utility meters, satellite dishes, security cameras and other mechanical, electronic and electrical devices is not recommended on primary façades. To minimize their visual impact, devices mounted on secondary façades should either be painted to match the color of the material on which they are mounted or screened by landscaping. Rooftop mechanical equipment should not be visible from a public way. If this is not possible, equipment should be screened with lattice, louvers or vertical-board screening. Electrical, cable and telephone services should be placed underground whenever possible. Air conditioning condenser units should be screened from public view.



External metal flues are inappropriate appendages to historic resources and should be avoided as they detract from the historic character of the resource.

5.2.10 OPENINGS (NEW) IN EXISTING WALLS

Creating new openings in a principal façade is not recommended. Proposed new openings in walls should be compatible with the historic character of the building, and should follow the existing *rhythm*, proportions and scale of the façade.



These proposed new sliding doors do not follow the rhythm, scale and proportions of the existing primary façades of historic resources in East Bradford.

5.2.11 PORCHES

Historic *porches* are important character-defining features of some East Bradford Township dwellings. On primary façades, the original materials, configurations, details and dimensions of a historic *porch* or *stoop* should be preserved or restored. Where components are severely deteriorated and require replacement, new components should be similar to the original in dimensions, design and painted finish.

In recent years, synthetic wood railing systems, *porch columns*, ceilings and trim have made significant improvements in representing and replicating traditional exterior woodwork, including *porch* components. Early vinyl railing systems, with their exposed fasteners, gloss-white finish and non-historic profiles, poorly represented traditional railings. Since then, the most advanced solid PVC and composite products have solved the problems of color, finish, exposed fasteners and profiles. As a result, except in the case of very elaborate historic architectural woodwork, synthetic wood products with a satin gloss finish may be appropriate, but standard vinyl railing systems and railings fabricated from unpainted pressure-treated wood as well as components with a historically incompatible high-sheen finish are not recommended.

Porch flooring was traditionally painted wood, fabricated with tongue-and-groove board edges to lay flat. With fewer rot-resistant wood options available, as well as fewer coating options because of VOC restrictions, synthetic wood options now dominate the market. Vertical grain, tongue-and-groove Douglas fir or mahogany with a painted finish remain the preferred *porch* flooring option for historic houses. However, solid synthetic wood (PVC) *porch* flooring fabricated with tongue-and-groove edges is also a viable solution, depending on the significance of the building and its visual prominence. Spaced boards—whether wood or synthetic wood—are not recommended for *porch* floors, and pressure-treated wood decking also is not recommended.

The open area between a *porch* deck and the ground is referred to as the skirting. Typically, skirting is a lattice of thin wood strips set in a wood frame and fitted between masonry *porch* piers. Existing wood skirting should be repaired or replicated. Where missing, new skirting should be fabricated in a square or diagonal pattern from painted wood. Prefabricated, plastic lattice panels are not recommended.



Top: Porches are important design elements on historic resources in East Bradford. The wide porches on these Scovelltown Road resources reinforce a sense of hospitality and also create a semi-private outdoor space on the front of each property. Middle: If porches are enclosed, the enclosure should remain light and open, to retain the transparency of the original porch as seen in these examples on Lucky Hill and Birmingham Roads. Left: Enclosing historic porches with solid walls and punched windows significantly alters the massing and rhythm of the resource.

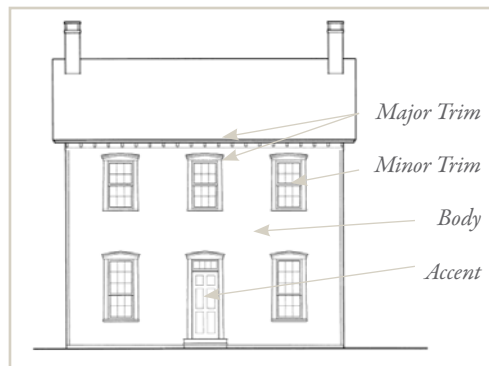
5.2.12 PAINT COLORS AND COLOR SCHEMES

Exterior colors and color schemes should be consistent with the architectural style and period of the building. Ideally, exterior colors are determined by paint analysis. Certain paint manufacturers offer historically accurate exterior paint colors, including specific palettes for different architectural styles. For most buildings, color schemes can be organized according to the body, major trim, minor trim and *shutter* colors. The body color covers wall surfaces. The body color may be brick, stone or a stucco finish that will not require painting. Major trim includes the *cornice*, window frames, decorative window heads, *columns* and bulkheads. Minor trim consists of window *sashes*, doors and storefront frames. Accent color or colors may be assigned to *shutters* and/or doors. While 18th-century and early 19th-century buildings historically featured simple color schemes – masonry walls, white exterior woodwork and dark green *shutters* and front door, for example – later Victorian styles featured color schemes that might include several colors. However, overly elaborate color schemes, and all color schemes employing multiple pastel colors, are not recommended. The so-called “painted ladies” are based on 20th-century popular images of Victorian architecture, not on paint analysis or history, and are generally not recommended.

When a historic building is repainted, the removal of all paint layers to bare wood is not generally recommended. Except for heavily weathered paint, scraping off loose material in preparation for new coats of paint is sufficient. Unpainted masonry surfaces generally should not be painted. Painted surfaces generally should remain painted, see Section 5.2.7 “Masonry: Paint Removal.” Finally, historically unpainted metals, such as brass hardware, should not be painted.

The East Bradford Township HARB and Historical Commission’s policy on the review of exterior paint colors is as follows:

- a. For applications for additions, new construction, alterations to and repair of existing buildings, the HARB/Historical Commission will review and provide comment on colors as part of its overall consideration of the application without imposing any conditions related to paint color.
- b. For applications involving the installation of materials with factory-applied finishes or inherent material color (such as roofing shingles, metal gutters and downspouts, pre-finished metal roofing and natural materials including brick and stone) the HARB/Historical Commission will review and provide comment on colors as part of its overall consideration of the application without imposing any conditions related to paint color.
- c. For repainting of existing wood and metal surfaces, where no other alterations are part of the changes, the HARB/Historical Commission will not review color.

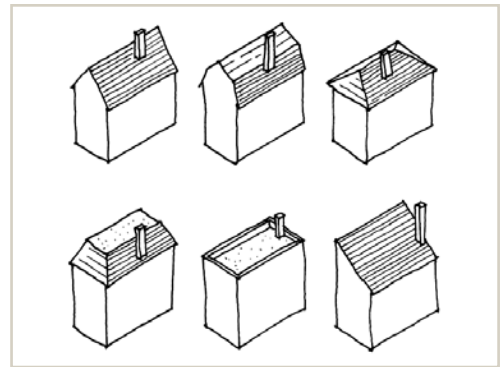
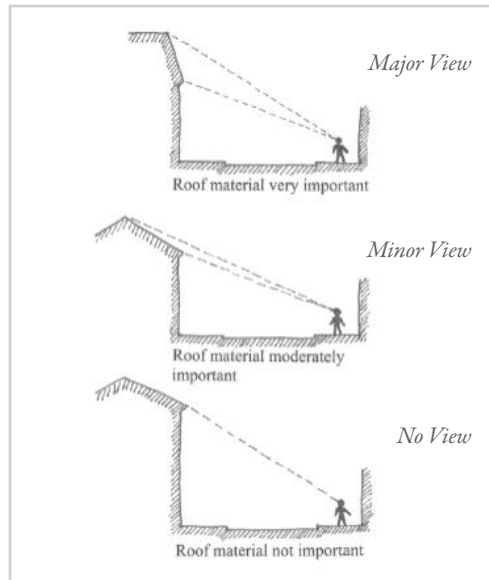


Paint color schemes for historic buildings should be organized according to body color, major trim color, minor trim color and accent color.

5.2.13 ROOFING: GENERAL, HISTORIC

Significant historic roofing materials and features should be preserved. Where the material is too deteriorated and replacement is necessary, best practice encourages that new roofing materials should replicate the original roofing material used on the historic building. Typical historic roofing materials used on sloping roofs in East Bradford Township were slate shingles, wood shingles, clay tiles and standing-seam metal.

The prominence of the roof and the height and angle of the roof as seen by a pedestrian or from a passing automobile make the roofing material more important on some buildings than on others. The roofing material used on a sloping *porch* roof or storefront *cornice* that is near to the viewer is visually very important. In contrast, a shallow *pitch* (i.e. 3-in-12 or less slope) gable roof on a three-story building may not be visible from a public way and therefore is not visually important.



Above: Common roof forms found on historic buildings. Clockwise from top left: Gable, Gambrel, Hipped, Shed, Flat and Mansard.

Left: The prominence, height and angle of the roof when seen by a pedestrian are important factors when selecting appropriate replacement roofing material.

5.2.14 ROOF FEATURES: DECORATIVE PATTERNED ROOFS

Decorative patterned roofs should be maintained and restored whenever possible. When replacing severely deteriorated decoratively patterned roofs, the new material should match the pattern, color and texture of the historic roof.

5.2.15 ROOF FEATURES: GUTTERS AND DOWNSPOUTS

Historic buildings with substantial *cornices* often featured built-in gutters that are not visible from the ground. The maintenance and restoration of built-in gutters is highly encouraged but is not subject to HARB or Historical Commission review. A more modest type of built-in gutter, the water diverter (also called a “pole gutter” because of the wood board used in its construction), is visible from the ground. The maintenance and restoration of water diverters is also encouraged, but may be replaced with “hung” gutters, so-named because they are hung from the roof deck by metal *brackets*.

When hung gutters and downspouts are replaced, the use of half-round gutters and smooth round downspouts is historically appropriate and thus recommended. New copper and lead-coated copper gutters and downspouts may be allowed to weather naturally, but galvanized steel gutters and downspouts should be painted to blend in with the color of the building to reduce their visibility. Factory-painted, half-round aluminum gutters and smooth round downspouts are also available.

Aluminum “K” gutters and corrugated rectangular aluminum downspouts, finished with baked enamel paint, are not recommended. PVC gutters and downspouts are not recommended because of their awkward fittings and non-traditional shapes.

5.2.16 ROOF FEATURES: HISTORIC CHIMNEYS

Historic chimneys are significant components of a building's architectural character and should be preserved. A replacement chimney should be an accurate reproduction of an original chimney and should be based on physical or pictorial evidence. Although historic chimneys were frequently finished with stucco as a maintenance measure, the treatment is not recommended. Where an interior chimney is removed as part of a proposed alteration, best practice recommends that the exterior portion of the chimney should be preserved or reconstructed to retain the historical appearance of the structure. When a new heating system eliminates the need for a through-roof chimney, it is recommended that the historic, though abandoned, chimney be preserved.

Chimneys on the oldest buildings in East Bradford were usually more simple, and should be preserved. Chimneys pots may be original features of some 19th-century homes in East Bradford and should be preserved, even if they are strictly decorative.



Left: Original chimneys on stone farmhouses in East Bradford Township were typically interior, simple stone masses that protruded from the roof in brick or stone and were capped with a simple stone slab or were constructed as more ornate features of the dwelling as seen in these two East Bradford examples. These elements should be retained and reused when feasible.

Right: The preferred option to the addition of a new external chimney would be relining an existing chimney.

5.2.17 ROOF FEATURES: HISTORIC CORNICES

Historic *cornices* are significant components of a building's architectural character and should be preserved. A replacement *cornice* should be an accurate reproduction of an original *cornice* and should be based on physical or pictorial evidence. Wrapping historic *cornices* in aluminum to eliminate painting is not recommended.



Decorative cornice brackets like these at Fawnbrook should be preserved or replaced in kind if necessary.

5.2.18 ROOF FEATURES: HISTORIC DORMERS AND CUPOLAS

Dormers are often character defining features not just of the house, but of the style of the house. Historic *dormers* and *cupolas* should be preserved. If physical and pictorial evidence proves that either *dormers* or *cupolas* originally existed on a building, the reconstruction of the original feature is recommended. The construction of new *dormers* or a *cupola* on any principal façade of an existing building is not recommended, except where historic *dormers* already exist in the immediate neighborhood. An application for new *dormers* should include photos of neighborhood buildings to support the placement, spacing, *rhythm*, size and type of new *dormers*. Prefabricated ventilators or *cupolas* are not recommended where visible from a public way.



Left: Types of dormer forms include (clockwise from top left) shed dormer, gabled dormer, segmental-arched dormer and hipped dormer. Center: Decorative trim at dormers is as important as the dormer windows themselves and should be preserved. Right: In this example in East Bradford, the gothic arch light divisions of the upper sash of the dormer windows is a typical feature of the Classical Revival style.

5.2.19 ROOFING: ASPHALT SHINGLES

Asphalt shingles may be the most common roofing material on 20th-century structures, but many types of historic roofing are present and well preserved in East Bradford.

Invented in America in 1901, most single-family houses built post-war in the United States have asphalt shingle roofing. During this same post-war period, asphalt shingles have also been used to replace more expensive, traditional roofing materials such as cedar and slate shingles. If asphalt shingles are proposed, it is recommended that the shingles be heavyweight, dimensional shingles that resemble the color of the historic roofing material they are replacing.

For a building constructed before asphalt shingles were manufactured, but that currently has asphalt shingles, the owner is encouraged to determine the historic roofing material, and consider replacing the existing asphalt shingles with the appropriate historic material. The use of asphalt shingles as a substitute material is described under slate, and wood shingle roofing, and may be summarized as follows:

- **Slate shingle roofing:** Replacement natural slate or synthetic slate roofing is recommended, particularly for Class I resources and architecturally significant buildings. For outbuildings and roofs not visible from a public way and with single-color gray or black slates, dimensional asphalt shingle in a color similar to the original slate roofing may be appropriate.
- **Wood shingle roofing:** Replacement of wood shingle roofing with dimensional asphalt shingle roofing may be appropriate for roofs higher than one story, depending on the application.
- **Metal roofing:** Replacement of standing seam metal roofing with similar color dimensional asphalt shingle roofing may be appropriate for roofs with limited visibility, depending on the application.

5.2.20 ROOFING: CEDAR SHINGLES

Until the middle of the 19th century, almost all roofs in East Bradford Township were covered with wood shingles. Early shingles were fabricated from locally grown pine, oak or Atlantic white cedar, but by the end of the 19th century were generally western red cedar. Cedar shingle roofing continued through the Revival styles of the 19th and 20th century and into the present, including Colonial Revival, Bungalow, Craftsman and other styles.

Wood shingle roofing, including both sawn shingles and hand-split shakes, is also a character-defining feature of many residences, and replacement of wood shingle roofing in kind is highly recommended. However, wood shingle roofing does carry a fire risk, and the difference between dimensional (“architectural”) asphalt shingle roofing and natural cedar shingle roofing is far less than the difference between a slate or clay tile roof and asphalt shingle roofing. As an alternative, substitute materials that closely resemble weathered cedar shingle roofing may be appropriate such as flat clay tiles, various plastic and rubber composite shingles and dimensional asphalt shingles.



The high visibility of these two cedar shingle roofs on Harmony Hill (left) and Connor Road (right) warrants the continued use of cedar over a replacement asphalt shingle roofing.

5.2.21 ROOFING: METAL ROOFING

Historic metal roofing appears primarily in two forms—standing-seam and flat-seam. Standing seam roofing, which is laid out in long panels approximately 18 inches wide, is used on sloping roofs, sometimes for the entire roof and sometimes for a lesser-slope *porch* roof. Except for sheet copper roofs, standing seam metal roofs were typically painted. Flat-seam roofing is used on low-slope roofs and built-in gutters.

The continued maintenance of existing metal roofing is highly encouraged. The replacement of severely deteriorated metal roofing with new metal roofing is also highly encouraged, particularly on highly-visible roofs. For flat-seam metal roofing on flat roofs (less than a 2:12 slope), membrane roofing may also be appropriate. To reduce the cost of custom pan fabrication and field painting, replacement roofing may be pre-formed and factory painted, provided standing seams are no more than an inch high and the roofing and flashing details are not complex.



Historic and replacement standing seam metal roofing can be seen on many historic resources in East Bradford.

5.2.22 ROOFING: SLATE SHINGLES

Slate shingle roofing replaced wood shingle roofing in large cities because slate was fireproof. In fashionable residential areas, slate shingle roofing was also desired because it was noncombustible and durable, and in the late 19th century was preferred for its decorative qualities.

Slate shingles are the most durable of all historic roofing materials. Depending on the source, slate shingles last from 100 to 150 years. Individual broken or damaged slates can be replaced without affecting the surrounding slates, and it is not unusual for entire flashing systems to be replaced without requiring replacement of the entire slate shingle roof.

The continued maintenance of existing slate roofing is highly encouraged and less expensive than replacement with a substitute material. The replacement of severely deteriorated historic slate roofing with new natural or synthetic slate roofing is also strongly encouraged. On buildings with gabled, *hipped* or *Mansard* roofs that are highly visible from the ground, replacement of slate with asphalt shingles is not recommended. Decorative patterned roofs should be maintained and restored whenever possible. When replacing severely deteriorated decoratively patterned roofs, the new material should match the pattern, color and texture of the historic roof.

Substitute materials that closely replicate historic slate roofing shingles are recommended. For example, recycled rubber/polymer shingles or fiber-reinforced cement shingles that resemble slate cost less than a natural slate roof but visually simulate slate. Care should be exercised in the selection of substitute roofing materials because their service life is often unproven.

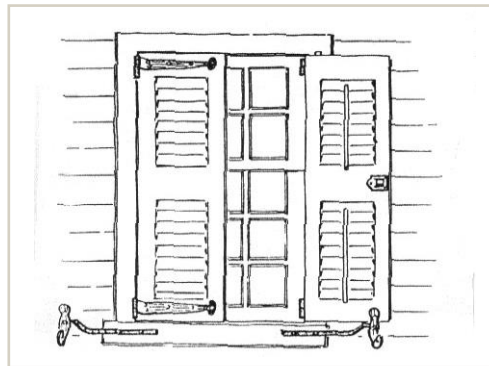


Retaining existing slate roofing is highly encouraged, particularly in highly visible locations like the Mansard roof on Allerton Road and the steeply pitched gable along Copeland School Road.

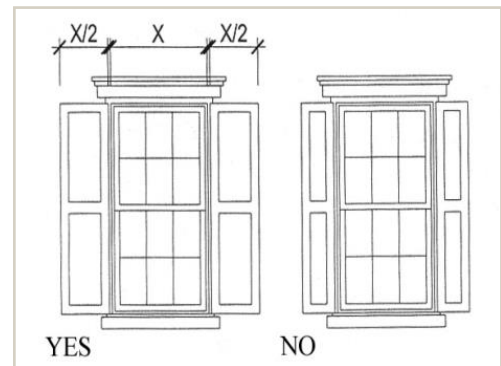
5.2.23 SHUTTERS AND BLINDS

Historic *shutters* (solid panels) and *blinds* (louvered panels) should be preserved. Historically, *shutters* and *blinds* were employed to provide night security and shading from the sun. Paneled *shutters* were generally used on the ground floor and louvered *blinds* were used on upper floors. Where historic exterior *shutters* and *blinds* survive, they should be carefully preserved and repaired. If no *shutters* or *blinds* are present but there is evidence that they once existed (as evidenced in either historic photographs or surviving pintle hinges), their replacement as part of any proposed rehabilitation project is encouraged. If no vestige of *shutters* or *blinds* exists, they should not be added to a building.

Replacement *shutters* and *blinds* should be fabricated from painted wood or factory-painted, solid, synthetic wood that are properly sized, and appear operable. Hollow plastic and metal *shutters* are not recommended. *Shutters* should measure one half the width of the historic *sash*, and match the height of the opening.



Historic shutters were mounted using traditional shutter hardware, including hinges or pintles, shutter dogs (hold-opens) and shutter bolts.



Replacement shutters and blinds should be painted wood or solid composite material, properly sized to sash opening and appear operable.



Traditionally shutters were paneled on the first floor (left) and louvered blinds on the second floor. Less often, they were made of boards (right). Where possible, old shutters should be retained and restored, or if necessary, replaced in kind.

5.2.24 SKYLIGHTS IN HISTORIC ROOFS

Skylights may be installed on the roofs of secondary façades, but are not recommended for the roof of primary façades. For more information on the placement of *skylights* on secondary façades, refer to Section 6.2.9, “Roof: *Skylights* in Specific Guidelines for New Buildings and Additions.”

5.2.25 STUCCO: HISTORIC

The removal of stucco (traditionally a blend of lime and sand, more recently lime, cement and sand) to expose original masonry is sometimes desirable; however, many masonry structures were originally roughly laid and covered with a lime plaster. In this case, the lime plaster should not be removed, but rather preserved or replaced. Brick walls were rarely built with the intent of applying a stucco finish. Existing stucco finishes were typically applied as a maintenance finish, to treat deteriorated brickwork and deteriorated mortar joints, or to cover alterations to the wall. Prior to attempting to remove a stucco finish and expose the underlying brick masonry, a test panel should be undertaken to determine the technical feasibility (and cost) of removal and the condition of the original brickwork. If stucco removal is feasible and the original brickwork is in good condition, stucco removal is encouraged.

When restoring historic stucco finishes, the new stucco should be applied using traditional methods, and finished to match surviving historic stucco. On masonry walls, the stucco should be applied directly to the masonry substrate, not to metal lath. Synthetic stucco finishes and factory-mixed stucco finish coats are not recommended.

Roughly-laid rubble stone walls were sometimes fully covered with stucco and sometimes partially covered with what is referred to as “*parge-pointing*.” What we describe as *parge-pointing* can also refer to heavily weathered stucco work on rubble stone walls (primarily farm buildings) that may be 50-percent or more covered with stucco. Repair of these weathered walls is sometimes achieved by the use of *parge-pointing*, a technique that covers roughly 50 to 80-percent of the wall surface with stucco, allowing the faces of larger stones to remain exposed.



Parge-pointing on historic mill (top left); Smooth stucco patch prior to whitecoat (top right); Heavily textured or swirled stucco is inappropriate (bottom left); Inappropriate stucco patch (bottom right).

5.2.26 WINDOWS: PRESERVATION OF HISTORIC

Historic windows are important character-defining elements of historic buildings and should be preserved through maintenance and restoration. Preserving historic wood and steel windows by means of periodic maintenance is the most cost-effective means of extending the life of historic window assemblies. By maintaining a paint film, historic wood, steel and putty glazing are protected from ultraviolet light and moisture. When window maintenance is deferred, otherwise sound materials are allowed to deteriorate. In the event of deterioration, repairs are recommended rather than replacement. Repaired historic wood windows have a longer service life than replacement windows because of the quality of the old-growth wood from which they were fabricated, while at the same time retaining the historic character of the original construction. Depending on the severity of deterioration and type of window, a window repair program might include the following:

Repair of deteriorated wood components by means of consolidation or *Dutchman* repairs

- Rehanging of wood *sashes* on new cords or chains
- Repairs to putty glazing
- Repainting
- Optional: Weatherstrip *sash* perimeters to reduce infiltration
- Optional: Provide interior or exterior storm windows



Historic windows that are distinctive features of a house or style like the craftsman hung windows of the William Ingram House (top left), this decorative Palladian gable assembly (bottom left) and the leaded glass windows of the Abiah Taylor House (top right) should be preserved.

5.2.27 WINDOWS: REPLACEMENT

Replacement windows are one of the most frequently encountered applications to the HARB and Historical Commission. Replacement windows are only recommended when the extent of deterioration of existing historic windows is so severe that repair is not feasible or the existing windows are not historic. They are available in numerous types, materials, designs and quality. This section provides an overview of the range of available replacement windows and their applicability to historic buildings.



Left: Appropriate replacement window retains the details of the historic window.

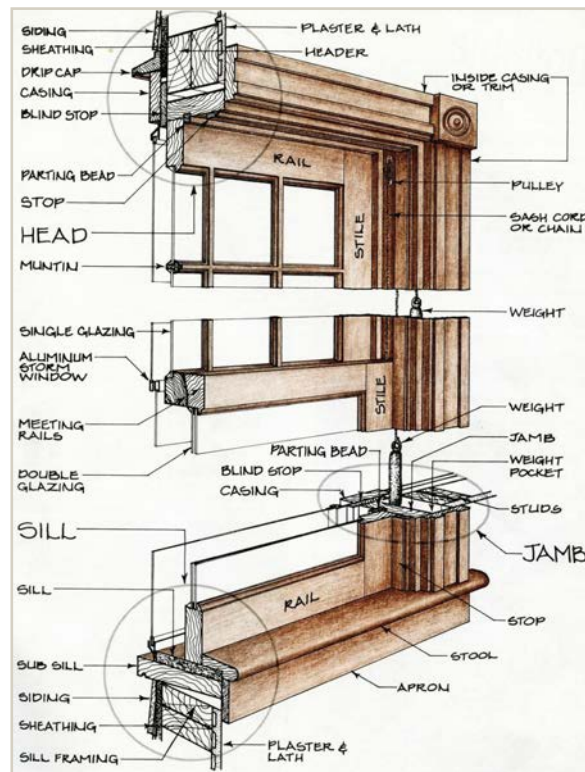
Middle & Right: Inappropriate vinyl replacement windows are often packed out from the original opening changing the proportion of the window, and do not include historic details or proportions of the window components.

REPLACEMENT WINDOW TYPES. Replacement windows for a *double-hung sash window*, which is the most commonly encountered window, are available as two types: replacement *sash* assemblies and replacement windows. Replacement *sash* assemblies are designed to fit within the frame of the historic window, and typically consist of two *sashes* and a plastic jamb liner that fits within the space of the historic *sashes*. Replacement window units, in contrast, require removal of the historic *sashes* and historic frame in order to create space for the new window. New window frames, however, are almost never as wide as replacement frames because the historic frame is a hollow box containing two cast iron weights hung from *sash* cords. To accommodate the loss of dimension, the masonry or framed opening is typically boxed out with framing lumber and trim extensions are added to the face of the frame to replicate the width of the original frame. Generally not recommended is the replacement window that fits within the *sash* space of the historic window. This application reduces the width of the glass *panes* and increases the width of the frame.

REPLACEMENT WINDOW MATERIALS. Replacement windows are available in: painted wood, clad wood, composite plastic, fiberglass, extruded aluminum and vinyl. Painted wood is the most historically accurate option, and because of the strength of wood, can be custom-fabricated in profiles that replicate historic wood windows. Certain manufacturers also fabricate aluminum-clad or vinyl-clad wood replacement windows, which are well-suited for *sash* replacement assemblies because they minimize the loss of *sash glass* area and have *muntin* profiles similar to traditional wood windows. Composite plastic and fiberglass replacement windows are available—both as replacement *sash* assemblies and replacement windows—and because of their strength are well-suited to large window openings and institutional and commercial applications. Extruded aluminum replacement windows with custom-profile frame *panning* are often proposed for institutional and commercial applications where the large number of windows allows the fabrication of custom-profile extrusions for *brick molds* and other shapes. Vinyl replacement windows are widely used in the housing market but are not recommended for historic buildings because they do not look like wood, are typically set with the plane of the upper *sash* aligned with the plane of the exterior finish, have no molding profiles available, result in a loss of glass area, and are not available as *sash* replacement assemblies.

GLAZING BAR CONFIGURATIONS. Early historic wood *sashes* were glazed with several *panes* of glass because the technology did not exist to produce larger sheets. A *sash* might be divided into six or nine *panes* of eight-inch by ten-inch glass that were held by narrow moldings called *muntins*. This configuration is called a “true divided-*light sash*” because the *lights* (*panes*) were separated from each other by *muntins*. With the introduction of *sealed insulating glass*, small *panes* of glass became very impractical and expensive. In response, window manufacturers developed three alternates to the true divided-*light sash*: applied *muntin* grids, between-the-glass grids and *simulated divided lights*.

- Applied *muntin* grids are removable plastic or metal grids that may be applied to the interior or exterior face of a *sealed insulating glass* unit to create the two-dimensional appearance of a divided-*light sash*. Because they are removable, they are sometimes removed and not replaced.
- Between-the-glass grids are metal grids that are built into the *sealed insulating glass* unit. They are entirely two-dimensional, and when light reflects off the exterior face of a *sash* at an angle, the grid may be imperceptible.
- *Simulated divided lights* are wood, metal, composite or fiberglass grids adhered to the interior and/or exterior face of a window *sash*. They are not removable and at the exterior often have the beveled profile of putty glazing. Expensive *simulated divided light sashes* have a between-the-glass grid that creates the appearance of a solid *muntin* extending from interior to exterior.



Left: Anatomy of a double-hung window, courtesy of Old House Journal.

Above: Replacement windows should be set in the same plane as original windows and repeat the style of the original trim. The example above illustrates what is not recommended. The replacement windows (above) completely eliminate the perceived depth of the masonry wall because they are set almost flush with the brick and the original, traditional brickmould has been replaced with aluminum casing.

It is not possible to simply rank the window options from most desirable to least desirable because there are so many levels of quality, finish options, fabrication details and impacts on the historic window frame. For example, a good fiberglass window may be preferable to a low-quality wood window, and so forth. However, generally window replacement options may be ranked as follows from most to least recommended:

1. Replicate deteriorated *sashes* and reinstall in existing frames, with or without weatherstripping and storm windows.
- Replace deteriorated *sashes* with primed wood replacement *sash* assemblies with *simulated divided lights* (*SDLs*), custom sized to existing *sash* sizes.
 - Replace deteriorated *sashes* with aluminum-clad, wood replacement *sash* assemblies with *SDLs*, custom sized to existing *sash* sizes.

- Replace deteriorated *sashes* with primed wood replacement window with *SDLs*, custom sized to fit within existing window frame. This will result in a reduction of glass area of two times the thickness of the new window frame, which is typically ¾-inch.
- Replace deteriorated *sashes* with aluminum-clad wood replacement window with *SDLs*, custom sized to existing window frame. This will result in a reduction of glass area of two times the thickness of the new window frame, which is typically ¾-inch.
- Replace deteriorated *sashes* with composite or fiberglass replacement window with *SDLs*, custom sized to existing window frame. This will result in a reduction of glass area of two times the thickness of the new window frame, which is typically ¾-inch plus the additional width of what is typically a chunkier *sash* stile.
- Replace deteriorated *sashes* with vinyl replacement window with *SDLs*, custom sized to existing window frame. This will result in a reduction of glass area of two times the thickness of the new window frame, which is typically ¾-inch plus the additional width of what is typically a wider *sash* stile. (Not recommended.)
- Replace deteriorated *sashes* with standard size vinyl replacement window with *SDLs*. This will result in a reduction of glass area of a minimum of two times the thickness of the new window frame, and potentially up to four inches. This approach typically includes wrapping the historic window frame with vinyl or sheet aluminum. (Not recommended.)

5.2.28 WINDOWS: STORM WINDOWS

Exterior storm windows are recommended by the National Park Service for upgrading the thermal performance of single-glazed historic wood windows. In addition to improving the infiltration of *sashes* and conductivity of window glass, exterior storm windows move the surface of moisture condensation to the inside face of the storm window, sheltering the prime historic *sash* from this constant moisture source, and are entirely reversible. Nonetheless, there is a bias against exterior storm windows, and some historic district and historic resource protection ordinances do not allow them. Because they are reversible and allow the historic *sashes* to be retained, they are recommended.

Types of storm window solutions include the following:

- Painted wood exterior storm windows (most expensive option). Although the most expensive, this traditional option is not necessarily the best solution if window screens are also desired; the screen panels and storm panels must be switched with the season.



Historic storm windows like this one were made of wood and were removed seasonally.

- Exterior flush metal storm windows that mount in the *shutter* rabbet of a traditional wood window frame. A relatively new innovation, the flush-frame exterior storm window is mounted in the *shutter* rabbet of a traditional wood *double-hung sash window*. Units may be custom-color finished at the factory, and sliding screen panels are standard accessories.
- Exterior three-track storm windows that project beyond the face of the original wood window frame (least expensive). This is the storm window that created the bias against exterior storm windows. First available only in mill-finish aluminum with poor fittings and hardware, early three-track storm windows detracted from the exterior appearance of historic windows. Today, they are available in standard baked enamel as well as custom colors, and have become a viable exterior storm window option.
- Interior metal storm windows. The most discreet of the storm window options, standard or custom color interior metal storm windows provide thermal upgrading of a historic window without impacting the exterior appearance of the window. With narrow-profile aluminum frames and ultraviolet filtering glass, interior storm windows are often seen in house museums. Their disadvantage is location of the condensation surface, which in a cold climate is the interior face of the historic *sash*.

5.2.29 WOODWORK: CLEANING

Cleaning of historic exterior woodwork should be done in the gentlest way possible. In general, scrubbing woodwork with a diluted solution of household detergent or chlorine bleach is an effective cleaning method, followed by a water rinse using a garden hose and spray nozzle. Pressurized water washing using up to 400-pounds-per-square-inch pressure is also acceptable, provided there are no open joints and cracks in the woodwork that would allow water to penetrate into the wall cavity. Cleaning exterior woodwork is an essential preparation step for repainting, and is also useful for extending the service life of a paint coating.

5.2.30 WOOD SIDING AND TRIM

Historic wood siding includes clapboard siding, vertical-board flush siding, board-and-batten siding and wood shingles. The visual character created by the texture and pattern of historic siding should not be altered by its replacement with different siding profiles or non-historic siding materials. The earliest synthetic siding products were pressed metal (1830s) and asbestos cement (1907), followed post-war by aluminum and vinyl. Today there is a plethora of synthetic siding and trim products that range in quality, cost and appropriateness to historic buildings. They are summarized as follows:

- Wood siding: It is recommended that historic wood siding be repaired and individual rotted boards replaced to the extent practicable. Replacement wood siding may be fabricated in numerous profiles to match existing siding from rot resistant woods such as Douglas fir, western red cedar, Spanish cedar and bald cypress.
- Fiber-cement board: Fiber-cement boards are castings made from Portland cement, reinforcing fibers and additives that are furnished with a factory paint finish that may also be field-painted. Available patterns include clapboard (lap) siding, vertical board-, shingle-pattern- and beaded-board panels and trim boards. *Clapboards* are now available in 5/8-inch thickness, and trim boards in 5/4-inch. Fiber-cement board can be field-cut to length but cannot be planed to form edge profiles. For non-profile clapboard siding and trim, fiber-cement board may be an appropriate substitute material.
- Solid PVC and composite board: PVC and composite plastic blends are extruded to form a range of profiles, including siding, plain and molded trim, boards of varying thickness, shaped railings and other profiles. The material may also be shop-planed to form edge profiles, field cut using standard woodworking tools and field-installed using conventional woodworking fasteners.
- Vinyl siding: Vinyl siding, which was introduced in the 1950's to compete with aluminum siding as a substitute wood siding, is reported to be the most widely used siding material in the United States today. It is produced as lap siding and trim components, with and without edge profiles. Vinyl building products are shell extrusions of PVC resin, fillers and additives.

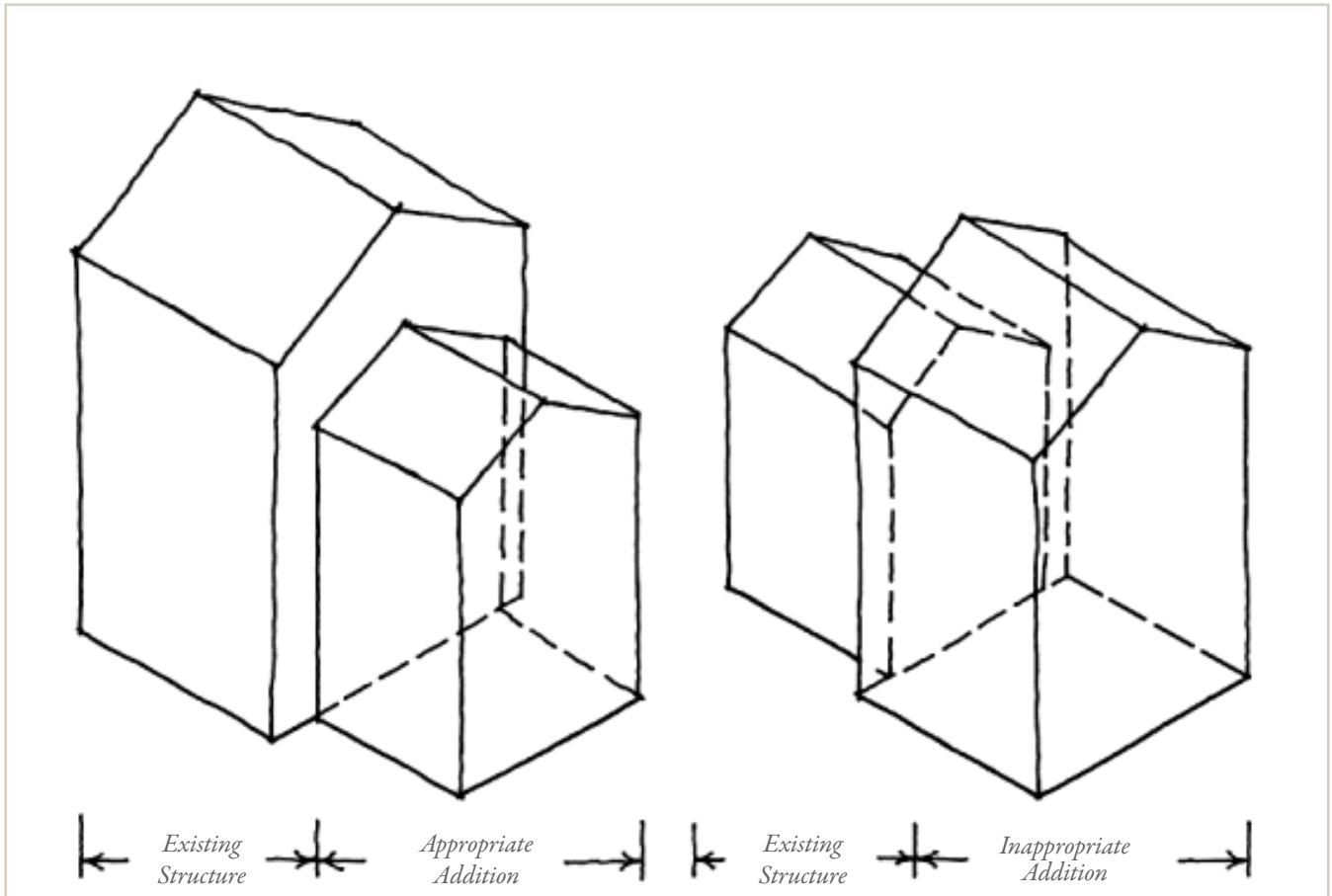
Unlike solid PVC and composite boards, vinyl siding is formed as a hollow, thin shell. Vinyl siding is generally not recommended for use in historic buildings. While the siding itself may adequately simulate wood siding – assuming the exposure and thickness are the same – the detailing at corners and ends is not traditional. This becomes acute when vinyl siding is replaced in conjunction with replacement vinyl windows, where historic window trim and cornerboards are removed and the new windows are installed without trim. In contrast, if wood corner boards and wood door and window trim are retained, the vinyl siding may be acceptable.

The removal of existing aluminum and vinyl siding and its replacement with historically appropriate siding is recommended. Wood trim elements such as corner boards, window and *door surrounds*, *brackets*, moldings and other decorative features should also be repaired or replaced to match their historic appearance. New painted woodwork may be fabricated from rot-resistant natural wood, solid PVC or other paintable, shapeable synthetic wood products, but faux wood grain texture on replacement materials is not recommended.

The cladding (wrapping) of exterior woodwork such as *cornices*, corner boards, *fascias*, projecting *bays*, *brackets*, window and door frames, *porch* framing and trim and other exterior woodwork with sheet aluminum or vinyl is also not recommended. Not only does the cladding cover historic wood moldings and architectural detail, but it also causes the covered woodwork to deteriorate due to moisture that becomes entrapped under the sheet material.



Left: It is common that wood siding for primary buildings is horizontal clapboarding, while outbuildings are more likely to have vertical board siding. Above: Patterns of historic vertical and horizontal siding should be preserved.



An addition to a historic building should be a secondary form that preserves the form of the historic building. A proposed addition should not overwhelm an existing historic building.

6 GUIDELINES FOR NEW BUILDINGS AND ADDITIONS

INSIDE:

6.1 GENERAL GUIDELINES FOR NEW BUILDINGS AND ADDITIONS

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6.1 GENERAL GUIDELINES FOR NEW BUILDINGS AND ADDITIONS

The following guidelines pertain to new construction in East Bradford Township. New construction includes 1) additions to historic buildings, and 2) new structures, secondary structures such as garages, sheds, outbuildings or workshops in historic districts. In general, it is recommended that new construction enhance, not detract from, the historic character of the district or resource. In certified historic district village settings, new construction should be compatible with neighboring structures on adjacent lots and across the street. These guidelines are recommendations for all historic structures in East Bradford Township. For new construction subject to HARB review, such as new structures in certified historic districts, the HARB will apply these guidelines in its design review.

6.1.1 BUILDING HEIGHT AND FORM: ADDITIONS

The *cornice* line on the principal façade of an addition should be no higher than the *cornice* line on the principal façade of the historic structure. Likewise, the *ridge* line of an addition should be no higher than the *ridge* line of the historic structure. The height and overall size of any proposed new addition should not overwhelm the height and overall size of the principal historic structure.

6.1.2 BUILDING HEIGHT AND FORM: NEW BUILDINGS

The *eave* line and *ridge* line of a proposed new structure should not exceed the height of the *eave* line and *ridge* line of flanking historic structures. The form of a new building should be compatible with the form of adjacent historic structures.

6.1.3 BUILDING PLACEMENT AND SETBACKS: ADDITIONS

While additions must comply with the zoning ordinance, proposed additions to historic resources should follow the pattern of setbacks of adjacent historic buildings and their additions in order to blend into the development pattern of the immediate neighborhood. For example, historically, most additions to buildings in a village or town context were built at the building's rear because there was no available building lot area on the sides of the building. These additions had minimal visual impact on the appearance of the village from the street, and new additions placed in the same manner will also have minimal impact.

For houses in a more suburban or rural setting, options for placement of additions are greater. Rear additions are often the most convenient in terms of the floor plan, and are generally the most compatible with a historic setting. Side additions may also be appropriate, especially when the *massing* of the existing residence is complex.



Several additions have been constructed at this historic resource on Harmony Hill, but their setbacks and massing retain the hierarchy of the historic core.

6.1.4 BUILDING PLACEMENT AND SETBACKS: NEW BUILDINGS

Setbacks for new construction must comply with the zoning ordinance. Historically, the building type and landscape setting dictated the structure's setback from the street. For buildings in a village setting, commercial buildings such as offices, retail shops and stores fronted directly onto the street or walk. New construction in a certified historic district should follow the precedent of adjacent lots, provided zoning compliance is achieved.



Successful new construction in the Taylor-Cope Historic District has been set back from the street and continued a rhythm that does not compete with the existing forms of the district.

6.1.5 BUILDING PLACEMENT AND SETBACKS: SECONDARY STRUCTURES

Outbuildings play an important role in the significance of the registered historic districts and agricultural landscapes. In village settings, outbuildings reached by driveways between houses historically provided support functions to the dwelling, including the functions of carriage house, garden outbuilding and, later, automobile garage. Garages, sheds, workshops and other new outbuildings should either be placed behind, and remain visually secondary to, the principal building on the lot, or follow the pattern of adjacent historic properties. Side and rear setbacks should follow the general pattern of the placement of outbuildings in the immediate neighborhood, provided zoning compliance is achieved.

For farm settings, the barn and outbuildings are often more prominent than the dwelling. New outbuildings in an agricultural setting should be sited as part of the traditional farmstead complex.

6.1.6 RELATIONSHIP OF ADDITIONS TO HISTORIC BUILDINGS

A proposed addition to a historic resource should be subordinate to the principal façade and *mass* of the historic building. The subordinate appearance of an addition can be achieved through its setback, *massing*, width and detail. Generally, the width of an addition should not overwhelm the principal historic structure.



The additions and connections to this log and stone dwelling on Connor Road are subordinate to the log and stone dwelling.

6.1.7 RELATIONSHIP OF THE FAÇADE PARTS TO THE WHOLE

All parts of a new building façade should be visually integrated as a composition, which should relate to adjacent buildings. The size, spacing, arrangement and proportions of façade elements such as doors, windows, *cornices* and *water tables* should create a harmonious composition.

6.1.8 REPLICATING HISTORIC BUILDINGS

The design of a new building should not be an exact replica of any existing historic building. Copies of historic buildings among original ones look awkward and present a false *historic context*. However, a new structure's design may be inspired by historic building designs and features, and may be traditional in form and detailing.

6.1.9 THE ROLE OF MODERN DESIGN

Much has been written about the style of new buildings in historic districts. The modernist view is that a proposed new building should be strictly modern in design, differentiating itself from historic buildings. The more widely accepted view and recommended approach for East Bradford Township historic districts is that a new building should be compatible with its historic neighbors without being a replica of an existing historic building. A new building is compatible if it shares size, scale, height, *rhythm*, façade openings, color and materials with its neighbors. The experience of a historic neighborhood or village cluster is enriched by new buildings that have merit on their own and are sensitive to their setting in a historic district.

6.1.10 SCALE AND MASSING OF NEW BUILDINGS

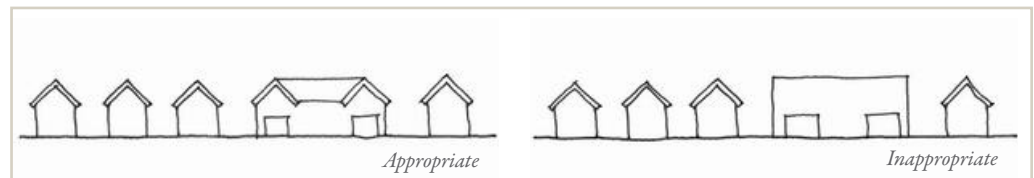
Large buildings should be designed as a series of *masses* or building elements compatible with the immediate *streetscape*. The *massing* or volumetric shape of a building greatly affects the scale of a building and is the most important design consideration for a new building. Where a large building in the historic district is unavoidable, the *mass* of the proposed structure can be broken down into traditional building blocks that relate to the scale of the *streetscape*, thereby blending into its context.

6.1.11 VISUAL RELATIONSHIP BETWEEN THE OLD AND THE NEW

A new building or addition should relate visually to neighboring contributing historic buildings. Proposals for new designs should consider the specific location and immediate neighborhood. For a typical building, neighboring historic structures include those to each side of the structure and those directly across the street from the structure. For a new building located at a corner, the neighboring historic structures include all buildings at the intersection in addition to those immediately adjacent.

The basic building form—the *massing* and scale—of a new building should be compatible with the general forms of neighboring structures. Specific *massing* considerations include:

- overall size.
- complexity of volumetric form.
- combinations of solids and voids in the overall shape.
- incorporating neighborhood “building blocks” into the *massing* of the proposed building.
- roof configuration.



A proposed large building may be made compatible with its context by breaking down its perceived massing into traditional “building blocks.”

6.1.12 WIDTH AND RHYTHM

Historically, the spacing of buildings along the road or village setting creates a *rhythm* of solids and voids. Additions should not fill in the spaces between buildings (unless the addition is recessed), and new buildings should not disrupt the existing *rhythm* of the street.

The architectural features of the façades of historic buildings within a *historic viewshed* have a discernable *rhythm*. The design of new buildings is encouraged to have a *rhythm* that is similar, but not identical, to the *rhythm* of the adjacent buildings. New buildings and additions should not be sited at unusual angles.

6.2 SPECIFIC GUIDELINES FOR NEW BUILDINGS AND ADDITIONS

The following guidelines pertain to new construction, which includes 1) additions to historic buildings, and 2) new structures, secondary structures such as garages, sheds, outbuildings or workshops in historic districts. In general, it is recommended that new construction enhance, not detract from, the historic character of the district or resource. These guidelines are based on the *Secretary of the Interior’s Standards for Rehabilitation*. The following elements are listed in alphabetical order.

6.2.1 DECKS

Wood decks that are visible from a public way are not recommended. They may be appropriate when carefully designed to be integral to the overall design of the residence. Deck floor *elevations* should be no higher than the first floor *elevation*. The total deck area should not exceed 25-percent of the livable area of the first floor of the residence. Railings should be a simple *picket* design, fabricated from painted wood. Privacy screens are not recommended. Arbors of a simple design, constructed of wood, may be appropriate, subject to specific design. The exposed structure under the deck should be screened by wood lattice.

Modern pressure-treated wood decks are not recommended where visible from a public way.



Left: Ideal placement of a deck is less than 4 feet above grade, so the deck, when viewed from the street, blends into the terraced hillside. Middle: If a main level deck is desired, the deck should be constructed as a traditional porch, supported by ground floor walls, and roofed over. Right: Elevated wood decks supported by pressure-treated wood posts are not recommended.

6.2.2 LIGHTING

Exterior lighting of additions and new buildings should be simple and in scale with the building. New fixtures should be simple, unobtrusive and mounted in a traditional manner. Exterior recessed downlights, if proposed, should be placed to avoid dramatic light patterns on the proposed building façade. Exterior floodlights and spotlights should be avoided on principal façades. Lighting for signage should be inconspicuous and should be restricted to reasonably low light levels. Yard lighting and parking lot lighting should be post-mounted on maximum 12-foot-high posts, or mounted on a secondary façade. High efficiency light fixtures at highly visible locations that produce yellowish or pinkish light are not appropriate.

Other lighting requirements are stipulated in the Zoning Ordinance (see Chapter 115-57).

6.2.3 MECHANICAL, ELECTRICAL AND COMMUNICATIONS EQUIPMENT

The mounting of louvers, registers, exhaust fans, alarm devices, satellite dishes, cable boxes, utility meters, communications equipment, cellular antennae, generators and other mechanical and/or electrical devices should be avoided on or adjacent to principal façades. To minimize their visual impact, devices mounted on secondary façades should either be painted to match the color of the material on which they are mounted or screened by landscaping features. Air conditioning condenser units and generators should be screened from public view and are subject to setback requirements in the Zoning Ordinance.

6.2.4 OUTBUILDINGS: NEW CONSTRUCTION

New outbuildings should visually relate to their *historic context*. Outbuildings should be simple in design, and should relate to the period of construction of the principal building on the lot. The design of outbuildings should not be overly elaborate. Depending on the placement of the building lot on the street, a proposed outbuilding will be treated as either a primary or secondary façade.



New outbuildings along Allerton Road follow the forms and materials of nearby historic outbuildings and are compatible with their context.

6.2.5 PAINT COLORS AND SCHEMES

Paint colors used on additions should follow the color scheme of the original building. For new buildings, paint colors should be compatible with color schemes in the historic district.

6.2.6 PORCHES AND STOOPS

New *porches* and *stoops* are encouraged on streets where *porches* and *stoops* are common. On additions, *porches* or *stoops* should be simple in design and visually relate to the existing building. On new structures, *porches* or *stoops* should visually relate to the proposed building in a manner similar to the relationship of historic *porches* to existing historic buildings.

6.2.7 ROOF: DORMERS AND CUPOLAS

Dormer design, proportions and placement on additions and new buildings should be compatible in size, scale, proportion, placement and detail with the historic *dormers* found in the Township. Shed *dormers* on principal façades are strongly discouraged except where they exist in the immediate neighborhood. The total overall width of all *dormers* should be no wider than one-half the overall roof width. Prefabricated ventilators or *cupolas* are not recommended where visible from a public way.

On secondary façades, new *dormers* should be compatible in size, scale and proportion with the original façade, and their placement should relate vertically to the building's *fenestration*. The overall width of a shed *dormer* should be no wider than one-half the overall roof width.



Left: The overall width of a proposed shed dormer should not exceed one-half of the roof width.
Right: Dormers should be carefully sized and placed to create a harmonious composition.

6.2.8 ROOF: FORM

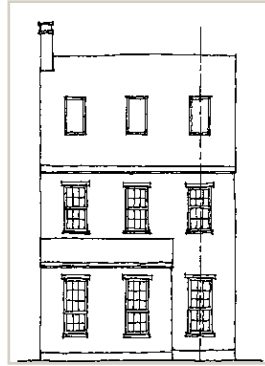
To be compatible, additions and new buildings should match the form of the dominant roof form in the historic resource (for additions) or historic district (for new buildings). Generally, on historic buildings, the roof form of an addition placed on the side of a building facing a street followed the form of the principal building. Continuing the historical precedent, additions to gable roof structures that face a street should also have a gable roof. Additions on a secondary façade, can have a different roof form from the original structure. In the design of new buildings, the use of one of the historic roof forms found in the district is recommended. Roof forms not prevalent in the historic district are not recommended.



The compatible additions to the historic core of the Townsend Farm Main House repeat the gabled roof form parallel to Hillsdale Road.

6.2.9 ROOF: SKYLIGHTS

Careful consideration should be given to the placement of *skylights*. *Skylights* with a low profile may be installed on secondary façades, but are not recommended for primary façades. When proposed for use on secondary façades, *skylights* should be low-profile, flat-glazed construction and mounted close to the roof. *Skylights* should relate vertically to the overall *fenestration* of the façade. The use of *dormers* and *skylights* on the same roof plane (i.e., next to each other) is not recommended.



While skylights are not recommended on primary façades, they may be added to secondary façades if they are incorporated into the overall pattern of doors and windows. Skylights should align vertically with windows in the wall below.

6.2.10 ROOF MATERIALS: ADDITIONS

The roofing material on an addition should match the original structure or be visually similar to the existing roofing. For example, a large addition to a building with a slate roof should have a roof that is slate, a synthetic slate or a material that appears similar in color and dimension to slate. The roofing material of a one-story shed addition to a two-story slate-roof house, however, could be another historically appropriate material such as painted metal.

6.2.11 ROOF MATERIALS: NEW BUILDINGS

The use of traditional roofing materials such as slate and standing-seam metal is recommended on new buildings. Synthetic slates, including composite rubber, concrete and clay types, are also recommended. Pre-formed, pre-painted standing-seam metal roofs may be appropriate, depending on the complexity of the roof. If asphalt shingles are proposed, they should be heavy weight, dimensional shingles in a color similar to aged traditional shingles in the historic district.



The combination of traditional standing seam metal roofing and heavy dimensional asphalt shingles on this new residence blends into its historic environment.

6.2.12 SHUTTERS AND BLINDS

Shutters and *blinds* are generally discouraged on additions and on new buildings. If *shutters* or *blinds* are proposed, they should follow the historical precedent of historical *shutters* and *blinds* in the *historic context*. New *shutters* and *blinds* should be properly sized to fit the opening (see Section 5.2.23) and should appear operable by being mounted on proper *shutter* hardware. Hollow plastic or metal *shutters* and *blinds* are not recommended, but composite *shutters* and *blinds* detailed to emulate historic forms may be appropriate. New *shutters* and *blinds* should be fitted with traditional *shutter* hardware and should not be surface-mounted directly onto an exterior wall surface.

6.2.13 WALL MATERIALS: ADDITIONS

An addition should either replicate the existing exterior wall material in type, color and texture or be constructed of a historic exterior wall material found in its *historic viewshed*. If wood siding is proposed for an addition, the width and type of the new siding should complement the proportions and scale of the existing building siding. Other possible new materials that would complement existing historic wood siding include cement/fiber synthetic clapboard siding that is manufactured with a smooth surface and field painted to obscure its manufactured finish. The wall materials of an addition should be compatible with the wall materials of the existing building. Vinyl and aluminum siding are not recommended for primary *façades*.



Windows and doors in additions should relate to the materials and proportions of the windows and doors of the original resource, as seen here in this recent addition to the historic Shady Grove School on Hillsdale Road.

6.2.14 WALL MATERIALS: NEW BUILDINGS

The use of historic exterior wall materials such as brick, stone or wood siding and their related details are recommended for new construction. Recommendations for wall materials for additions also apply to new buildings. Composite wall panels, glass-fiber-reinforced concrete panels and *cornices* and other contemporary wall systems may be appropriate, subject to their specific application. The principles of scale and proportion will still apply, but there are opportunities for the compatible use of new materials within the context of the historic district.

6.2.15 WINDOWS AND DOORS: ADDITIONS

It is recommended that the material of windows and doors in additions match the material of the windows and doors in the historic structure. The proportions of windows and doors in an addition should be similar to the proportions of original openings in the existing building, or multiples of the size of original openings. Depending on the size and design of the addition, replicating the *sash* configuration of the original building may be recommended. Snap-in *muntins* in new windows are not recommended. Sliding glass doors are not recommended on the primary façade of an addition.

6.2.16 WINDOWS AND DOORS: NEW BUILDINGS

Windows in new buildings in the historic district should relate to the placement and proportions of window openings in the neighborhood of the proposed new building. In a primarily residential neighborhood, windows of the primary façade in a new building should be of sizes and proportions similar to existing residential windows in the neighborhood. For such buildings, the total area of windows on the primary façade should be no more than one-third of the total wall area. However, in commercial districts containing 20th-century commercial buildings existing windows may be much larger. Proposed buildings in this setting should be of sizes and proportions similar to existing commercial buildings.

7 GUIDELINES FOR SUSTAINABILITY

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7.1 GENERAL GUIDELINES FOR SUSTAINABILITY

By virtue of their embodied energy, historic buildings are inherently sustainable. Recycling entire buildings and entire neighborhoods maximizes the reuse of existing materials, minimizes waste, minimizes the loss of shade cover in a neighborhood, and reuses existing utility and transportation infrastructure. Because they were built when central heating and especially mechanical air conditioning either did not exist or were very primitive, historic buildings incorporate numerous climate-mitigating, sustainable features. These include *porches*, operable shutters, shared party walls, massive masonry walls, passive ventilation systems, natural daylighting and other passive energy-saving devices.

As part of an overall national strategy to make all buildings more energy efficient and more environmentally friendly, energy standards and code requirements are applied to all building construction projects, including new buildings and the rehabilitation of existing buildings. While this environmental ethic is good, energy codes are based on simplistic models utilizing modern wall and *fenestration* systems, and often fail to recognize and account for the more complex energy conservation features built into historic buildings, such as thermal mass. In historic areas, a balance must be struck between maximizing energy conservation and preserving the historic character of individual building components, buildings and *streetscapes*.

Changing Technologies. These guidelines address the challenges of incorporating sustainable features into historic buildings and historic districts. Beyond any specific guideline, the most important general guideline is Standard No. 10 of the *Secretary of the Interior's Standards for Rehabilitation*, "New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired." Consistent with this principle, requirements for the placement of solar collectors in an *historic context* is far less important than requirements for replacement windows because of the principle of reversibility: the solar collector can be removed in the future and the historic property will return to its previous appearance, while replacement windows result in the permanent loss of the original window *sashes*. An array of solar collectors in a backyard may be perceived as an eyesore, but when the collectors are removed, the site can return to its previous state.

Abandoned shutter dogs or awning hardware on a historic building are a testament to changing technology and reversibility. Fabric awnings were often added to existing windows and *porches* to reduce solar gain, but were later removed, leaving behind only their mounting hardware. Sustainable technology will continue to evolve, with new hardware and new technology becoming less expensive and more widespread, and older systems abandoned. In more recent times, the trombe wall was retrofitted to numerous existing buildings but receives little attention in the literature

today. Abandoned solar water heaters may be seen on many public buildings and private residences because of the problems inherent in piping water from rooftops to interior plumbing systems as well as advances in competing photovoltaic collectors. In conclusion, because technology changes so rapidly, no sustainable feature should be added to a historic building or site that cannot later be undone without harm to the resource.

7.2 DAYLIGHTING

Daylighting, defined by the Whole Building Design Guide (WBDG) as the controlled admission of natural light—direct sunlight and diffuse *skylight*—into a building to reduce electric lighting and to save energy, was an important aspect of building design prior to the invention of electric lighting. Daylighting has been rediscovered for both energy-saving reasons and for reasons of increased worker productivity and human comfort. Daylighting is particularly applicable to loft building conversions, and through the innovative use of *skylights* and light tubes, may be utilized in residential buildings.

7.2.1 COATINGS FOR NEW AND EXISTING GLASS

Daylighting is reliant on windows in walls and roofs. One means of controlling light emitted through windows is coatings on glass. Reflective and tinted coatings are not recommended for new and existing window glass in an *historic context*. Such coatings change the relationship of the building interior to the street, analogous to a person wearing sunglasses indoors. Coatings also change the scale of window openings in a wall, making the overall wall appear more monolithic and lacking in human scale. There are, however, sophisticated coatings that significantly reduce solar heat gain and glare while retaining the visual properties of clear glass. Such coatings have little or no impact on an historic resource.

7.2.2 AWNINGS

Awnings are used to shade windows from direct sunlight, reducing glare and solar heat gain. Although once a common residential element, most awnings today are used to shade storefront windows. Residential awnings remain an appropriate method of shading windows, provided they are simple in design, and are striped or solid color, using colors appropriate to the period of the building.



Canvas awnings became popular for residential and commercial buildings during the early 20th century. This passive measure reduces solar gain and allows windows to remain open during rainfall.

7.2.3 SKYLIGHTS

Skylights, light monitors, light tubes and other forms of overhead natural lighting can provide natural lighting to areas of buildings that are remote from perimeter walls. In former industrial buildings, light monitors are important architectural features that should be preserved. For *skylights* proposed for existing sloped roofs, see Section 5.2.24. For *skylights* proposed for roofs in new buildings and additions, see Section 6.2.9. *Skylights* proposed for flat roofs, where not visible from the ground, have no impact on the historic resource.

7.3 DURABLE MATERIALS

Material durability is an important principle of sustainability. The wood species selected for exterior woodwork should be rot-resistant and hold paint well. Historic wood window *sashes* and shutters were constructed with old growth softwood lumber that is no longer available. Because of the durability of this original wood, repaired *sashes* and shutters generally outlast new *sashes* and shutters. Finding suitable *porch* flooring is also problematic. *Porch* flooring, fabricated from solid polyvinylchloride or composite wood/plastic resin and formed in traditional tongue-and-groove profiles, may be an appropriate substitute material for painted wood. Likewise, smooth, field-painted polyvinyl chloride (PVC) trim may be an appropriate substitute material for painted exterior woodwork as field-painting can obscure the pre-fabricated finish of the substitute material.



Despite inconsistent paint maintenance, the durable, old-growth heart pine used in the 200-year-old moldings of this dormer are repairable, accept paint readily and offer a more reliable service life than new woodwork. Left: Following paint removal and prior to woodwork restoration. Right: Completed dormer.

7.4 GEOTHERMAL HEATING AND AIR CONDITIONING

Ground-source heat pumps, commonly referred to as geothermal heating and air conditioning, are applicable to historic structures under certain circumstances. For historic structures with a ducted, all-air, heating system, the changeover to geothermal will have minimal impact on the structure. The changeover will improve the exterior appearance of the site because geothermal heating and cooling eliminates the need for outdoor condensing units. However, to drill wells for ground-source heat pumps, the site must be large enough and accessible enough to accommodate a large drilling rig. Most urban sites cannot accommodate such a large truck, so opportunities for geothermal systems are largely limited to structures in low-density neighborhoods and rural areas such as East Bradford Township.



To drill wells for ground-source heat pumps, the site must be large enough to accommodate a large drilling rig.

7.5 GREEN ROOFS

Green roofs, defined as roofs vegetated with densely spaced plants that shade the roof deck, reduce heat islands on a neighborhood level, reduce cooling loads for a building and reduce storm water runoff. They are largely limited to flat roofs, and typically are not visible from the street. Existing roof framing often requires reinforcement to support the additional load of the plantings and retained water, and roof membranes and roof assemblies must be carefully selected to withstand constant wet conditions. Although there are historic examples of vegetated sloping roofs in North America, they are rare and all rural. Except within historic districts that contain historic examples of vegetated sloping roofs, they are not recommended for historic buildings or new buildings in historic districts. Vegetated flat roofs have no visual impact on the historic resource unless the roof has no *parapets* or the vegetation is taller than the *parapet*. Visible vegetation on existing flat roofs is generally not recommended, but may be appropriate for new buildings and additions.



If there is adequate structure and drainage, low slope or flat roofs on buildings in an historic context may be vegetated.

7.6 PASSIVE VENTILATION SYSTEMS

Prior to the advent of mechanical ventilation, passive ventilation systems were employed in all types of occupied buildings. Operable windows, sometimes equipped with insect screens, provided passive ventilation for many historic buildings. Buildings were sometimes built with passive ventilation systems that included wall registers and brick air ducts that discharged through the roof in what appear to be chimneys. Attic spaces were ventilated by means of *gable end* louvers or sheet metal gravity ventilators. Passive ventilation remains a viable means of conserving energy and is a component of sustainable new design. It is recommended that operable windows and historic roof ventilators be retained. Modern turbine ventilators and power roof vents are not recommended for roof slopes on primary *facades*. Continuous soffit vents fabricated from perforated aluminum or vinyl are not recommended where visible.

7.7 RAINWATER COLLECTION SYSTEMS

Collecting rainwater on-site for use in garden irrigation reduces storm water runoff and conserves water. Rain barrels placed at the bottoms of downspouts can become a convenient means of plant watering. Underground rain water collection systems can be built large enough to make an impact on stormwater. Roof water piped to a large tank buried in the ground has no visual impact following construction. However, like geothermal heating and air conditioning systems, the site must be large enough for a water tank and accessible enough to accommodate excavating equipment required for installation.



Although invisible after installation, an underground rainwater collection tank requires a property of adequate size and accessibility.

7.8 SOLAR PANELS

Solar panels first appeared in the 1970s in the form of solar water heaters. Solar water heaters decreased in popularity because of the problems inherent in piping water from rooftops to interior plumbing systems as well as advances in competing photovoltaic collectors. Wind power, hydro and solar photovoltaics are the three principal renewable energy sources in the world. Solar panels are built as modular units that are grouped together to form an array. A solar array may be ground-mounted on an open metal framework that secures the panels at an angle best suited to maximize solar collection, or the array may be mounted on the roof of a new or existing building. The National Park Service and the National Trust for Historic Preservation have developed guidelines for solar panels, as follows:

- a. Locate solar panels on the site of a historic resource [rather than on the roof of the resource]. This guideline is only achievable in low-density neighborhoods and rural areas, and the visual impact of a ground-mounted array must be considered. Installing an array in the front yard of a historic property is not recommended.
- b. Locate solar panels on new construction. If mounting an array on the ground is not feasible and if the planned project includes new construction, placing the array on the roof of the new construction is preferable to the existing historic building.
- c. Locate solar panels on non-historic buildings and additions. If the historic property has outbuildings or a historic building has non-historic additions, placing the array on one of the non-historic roofs is preferable to the historic building.
- d. Place solar panels in areas that minimize their visibility from a public thoroughfare. The roof of the primary façade is the least preferred location for a solar array (see Section 5.1.4 for a description of primary and secondary *façades*). Where possible, solar panels should be placed on the roofs of secondary *façades* and on flat roofs where their visible impact will be less. For all sloping roofs, the solar panels should be low-profile, flat panels that are mounted parallel to the roof plane and held back not less than 18 inches from any roof *ridge*, *hip*, penetration (such as a chimney or *dormer*) or *eave*. Arrays should be laid out as simple rectangles where feasible. “H,” “L,” “T,” and “U” configurations are also allowed where a simple rectangle is not feasible.
- e. Avoid installations that would result in the permanent loss of significant, character-defining features of historic resources. Solar panel installations should be reversible. Technical obsolescence for any solar panel is assured, so any installation should be built in a manner that it can be entirely removed and replaced with the newest technology without harm to the character-defining features of the historic building.
- f. Require low profiles. See 7.8.d above.
- g. On flat roofs, set solar panels back from the edge. Because the solar panels on a flat roof must be mounted on a metal frame to maximize the capture of solar energy, the height of the frame is important. A solar array installed on a flat roof is very similar to rooftop mechanical equipment, and its visibility from the street should be minimized. The array should be held back approximately eight feet from the primary façade of the building.



Although placing solar panels on secondary roofs is preferable, they are permitted on principal roof slopes when no other technically feasible option is available. A rectangular array (left, bottom) is preferable to a U-shaped configuration (left, top), but both are allowed. As seen on Harmony Hill (above), the installation of ground solar panels behind the structures is preferable to installing them on historic roofs or in more visible landscapes.

7.9 WIND POWER

Although wind power is one of the three principal renewable energy sources in the world, wind machines are rarely placed on buildings or in densely settled neighborhoods. Exceptions to this may be coastal locations where continuous breezes justify ground-mounted wind turbines. Because of the amount of torque generated by a tower-mounted wind turbine, they require a substantial structure to support. This support is best achieved by means of a steel tower anchored directly to a concrete foundation. Because of structural requirements, it is not feasible to place on existing roof structures; therefore, the appropriateness of a roof-mounted wind machine is not an issue in *historic context*. Free-standing wind machines of a scale similar to historic wind machines may be appropriate to rural historic areas.

7.10 WINDOW UPGRADES

Windows have become the central focus of energy inefficiency in existing buildings. Despite empirical evidence to the contrary, the popular press overwhelmingly singles out historic wood and steel windows as the greatest energy loss problem in existing buildings. The same press encourages replacement windows as the preferred option for upgrading historic windows. Historic windows are portrayed as drafty, poorly fitting, in need of paint, and single-glazed. The recommended solution is always replacement windows, a solution that the replacement window industry invented and the green building community supports because the outcome is measurable.

While replacement windows are an appropriate solution for severely deteriorated historic windows, the vast majority of existing historic windows can achieve equal performance levels through a combination of repairs, weatherstripping and storm windows. For guidelines relating to existing windows, see Sections 5.2.26 through 5.2.28.



Custom color, three-track storm windows are now available as flush units that are placed in the shutter rabbet of the historic window frame.



In the Worth / Jefferis Historic District, many of the resources are set well off the road, creating significant but fragile historic landscapes and views that should be preserved.

8 GUIDELINES FOR PRESERVING HISTORIC CULTURAL LANDSCAPES

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- 8.1 GENERAL GUIDELINES FOR PROTECTING HISTORIC CULTURAL LANDSCAPES
 - 8.1.1 GENERAL
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8.1 GENERAL GUIDELINES FOR PROTECTING HISTORIC CULTURAL LANDSCAPES

8.1.1 GENERAL

A primary purpose of the Historic Resources Protection Standards ordinance is to preserve the historical character of the historic districts. *Streetscapes* are the public spaces formed by buildings along streets in a city, town or village setting. These outdoor, linear rooms have buildings as walls, street and sidewalk paving as flooring, the sky as a ceiling, lighting provided by the sun by day and street lights by night, and furnishings consisting of vegetation, planters, building *stoops* and steps, benches, trash receptors, automobile signage and other accessory items. *Streetscapes* are dynamic and change with the weather, time of day and season. The public perception of a neighborhood or historic district is formed by the quality of the *streetscapes*. The quality of a *streetscape* is formed by both the character of the buildings that define the street space and/or the character of the outdoor ground surfaces, vegetation, walls, fences and furnishings that enrich the space.

Rural landscapes are cultural landscapes that include historic buildings in a setting that combines the work of nature and man over time. Examples include a stone bridge over a stream, stone ruins in a natural setting or a farmstead surrounded by fields. In some respect the rural landscape is more fragile than the village *streetscape*, because open space is a critical component of the rural landscape. Any new building or addition that is visible to the public results in a loss to the integrity of the landscape.

8.1.2 VILLAGE STREETSCAPES

In East Bradford Township, villages are small and linear in form, primarily consisting of properties laid out along the road that passes through the village. It is recommended that for all new buildings and additions in village settings, existing setbacks and building spacings be maintained. Suburban development such as a strip shopping center, convenience store, chain drugstore or branch bank would immediately diminish the character of these village *streetscapes*.



The Strode's Mill Historic District is one of the few places within the Township where building setbacks are minimal. These spatial relationships should be preserved within the District.

8.2 SPECIFIC GUIDELINES FOR PROTECTING HISTORIC STREETSAPES AND LANDSCAPES

8.2.1 ACCESSIBILITY

These guidelines pertain to the addition of exterior elements required to provide accessibility to historic buildings, and are based on the Americans with Disabilities Act (ADA) and accessibility provisions of International Building Code. Building accessibility for individuals with disabilities should be achieved without compromise to historic materials or to character-defining features of a historic building or site. A ramp or vertical access lift should not be placed on a primary façade of a historic building where it can be avoided.

If the only feasible placement of a ramp or lift is on a primary façade, efforts should be made to minimize its visual impact on the façade, and the building owner should work with the HARB or Historical Commission and the Building Code Official to achieve accessibility without visual intrusion. Sometimes accessibility devices can be concealed effectively within a traditional building element. For example, a vertical platform lift could be built within what appears to be a traditional *porch*, or a ramp can be integrated into an entrance terrace. Pressure treated wood railings and exposed structures are not recommended.

Where possible, a building addition to a public building should be designed to include features that make up for any accessibility deficiencies of the original building. This approach can eliminate the need for intrusive alterations to the original building.

All new buildings except private homes and churches are required by law to be accessible to persons with disabilities. New buildings in historic districts should be designed with integral accessibility features, so that changes in level are accommodated within the new building, not at the building exterior.

8.2.2 DRIVEWAYS AND OFF-STREET PARKING

Off-street parking areas should be carefully planned to protect the historic character of village settings. The removal of mature landscaping and trees to provide parking areas is discouraged. If a new parking area or driveway is required at a location that is currently vegetation, grass-block pavers, clay brick, Belgian blocks or crushed stone are encouraged.



Where driveways or parking areas impact the views of the historic resource, use of historic paving materials is encouraged.

8.2.3 FENCES

Split rail, wood *picket*, vertical board, wood stockade and ornamental iron fences are found in the historic districts and at historic resources in East Bradford. Chain-link fences and plastic fences are not recommended in an *historic context* except on rear areas of lots. In general, new fences should be compatible with the specific *streetscape* and comply with the zoning ordinance. New fences along street fronts should be designed to allow views of the yard and building. New fences for rear and side yards may be more opaque. Gates should be designed to swing into the private walkway or driveway, not onto the public sidewalk. Fences along side and rear lot lines may be constructed of rough board, plank or welded wire fabric, but fences near dwellings should be more refined or ornamental.



Several versions of the split rail fence can be found in East Bradford. These fences allow views of the yards or fields and articulate changes in land use and ownership.

8.2.4 RETAINING WALLS

Existing historic retaining walls should be preserved or restored (see Section 5.2.8 for guidelines on repointing historic masonry). New retaining walls that are visible from a public way should be built with materials traditional to the *historic context*. Railroad ties, pressure-treated lumber and decorative concrete units are not recommended retaining wall materials.



Low stone retaining walls are common features of East Bradford resources and contribute to the historic character of the landscape and should be preserved.

8.2.6 SIGNAGE

Signs should be compatible with the scale, proportion, form and architectural detailing of the building to which they are applied. The Township signage ordinance dictates requirements for signage. Projecting signs (hung perpendicular to the wall on a decorative *bracket*) and wall-mounted signs that are rectangular, square or oval are appropriate to the majority of historic buildings. Free-standing signs are appropriate for buildings that are set back from the front lot line and fronted by landscaping. A traditional sign type such as wood with either carved or painted lettering is highly encouraged. Signs should not obscure any architectural detail. Appropriate colors for signs were traditionally intense versions of building colors—high-gloss bottle greens, olives, golds and burgundies on a neutral background. On commercial buildings with a storefront, signs should be placed in the signboard area (frieze) located above the storefront windows and below the upper-story windows.

Corporate logos and standard corporate lettering styles that are nontraditional should be deemphasized in the signage design for a historic building. Creative graphic solutions, in which the corporate logo or corporate lettering style is a secondary element, are recommended.

Where signage lighting is required, gooseneck or hidden lights are recommended. Internally illuminated signs are generally not recommended, except backlit individual pin-mounted letters.

Street address numerals should be simple in style, with characters not more than four inches high and be in compliance with Chapter 46 of the East Bradford Township Code. Script styles and the spelling out of the address are not recommended.



Left: Yard sign appropriate at an historic resource.

Right: Internally illuminated boxed signs are not appropriate at historic resources or in historic districts.

8.2.7 STREET AND YARD LIGHTING

Site lighting should be compatible with the village setting, and may include either traditional (period) lighting fixtures or simple modern fixtures. Yard lighting and parking lot lighting should be post-mounted on maximum 12-foot high posts. High-efficiency fixtures such as mercury vapor or low-pressure sodium are not recommended because of their light color.

APPENDICES

INSIDE:

- A. GLOSSARY OF COMMON ARCHITECTURAL TERMS
- B. SECRETARY OF THE INTERIOR'S STANDARDS FOR REHABILITATION

A. GLOSSARY OF ARCHITECTURAL TERMS

architrave:

- 1) The lowest horizontal element of a classical entablature;
- 2) The ornamental moldings (trim) around windows, doors and other wall openings. *See Figure 5.*

asymmetrical:

Not symmetrical.

baluster:

A shaped, short vertical member, often circular in section, supporting a railing or capping.

balustrade:

An assembly consisting of a bottom rail a row of ballusters and a top rail. *See Figure 2.*

bay:

A regularly repeated main division of a building design. A building whose façade is five windows wide may be described as a five-bay building.

bay window:

A window structure projecting beyond the main wall plane; if attached to the building above ground level, properly called an oriel. *See Figure 1.*

blind:

A louvered shutter that excludes vision and direct sunlight, but not indirect light and air, from a house. *See Figure 9.*

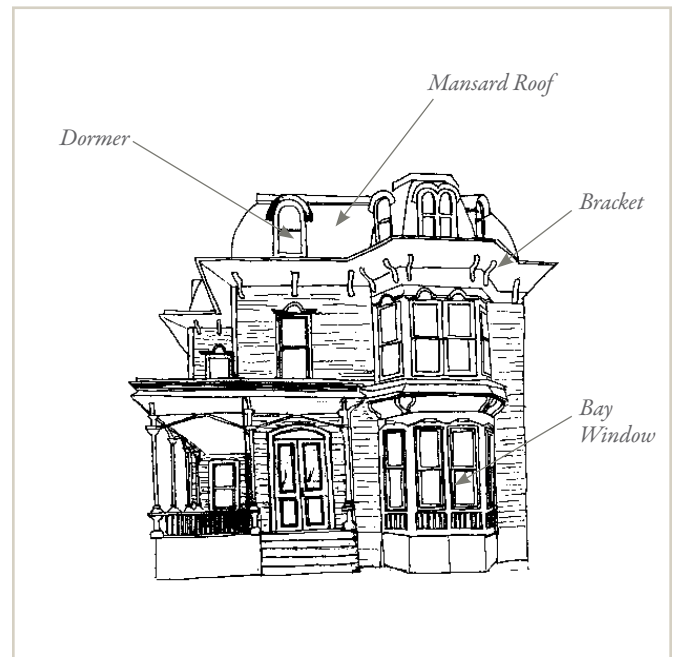


Figure 1

bond:

The setting pattern of bricks or stones, such as common bond, Flemish bond, etc.

bracket:

A projecting support placed under an architectural overhang such as a cornice; often ornate. *See Figure 1.*

brick mold:

The wood trim between a window frame and wall masonry.

capital:

The top member (cap) of a column. *See Figures 5, 10.*

casement sash, casement window:

A window sash which is side-hinged; a window having casement sashes.

casing:

The exposed architectural trim or lining around a wall opening.

clapboards:

Narrow boards applied horizontally to an exterior wall, each of which overlaps the one below it to create a continuous skin over the wooden frame.

classical:

1) Decorative elements deriving directly or indirectly from the architectural vocabulary of ancient Greece and Rome;
2) architectural harmony based on the principles of ancient Greek and Roman architecture.

column:

A long vertical structural member that supports a load; in classical terms, a cylindrical support having a base, shaft and capital.

cornice:

Strictly, the upper projecting part of an entablature; in general terminology, the exterior assembly that closes the joint between the wall and roof of a building. *See Figures 2, 5, 14.*

cupola:

A structure set on a roof ridge, with a dome or hipped roof. *See Figure 2*

doric:

One of the five classical orders, column usually without a base and with a simple capital.

dormer:

A roofed structure with a vertical window that projects from a pitched roof. *See Figure 1.*

double-hung sash window:

A window with two vertical sliding sashes, each closing half of the window opening.

door surround:

Decorative treatment at the sides and top of a door. *See Figure 3.*

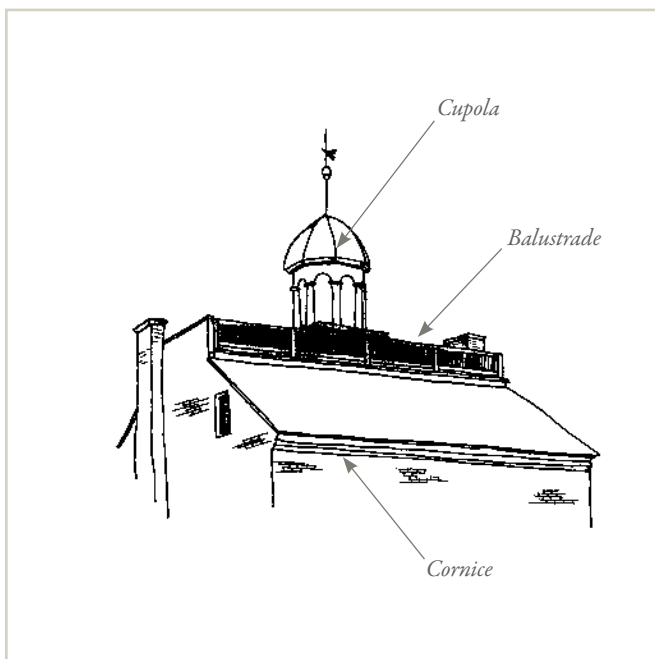


Figure 2

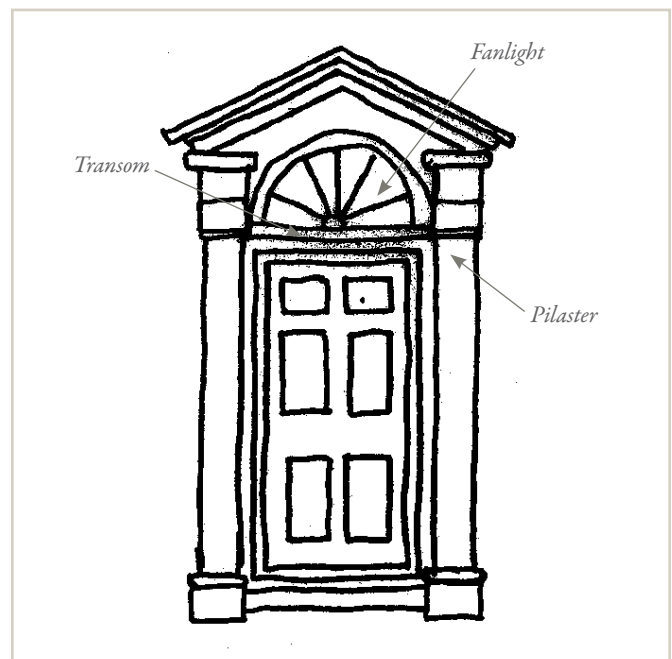


Figure 3

Dutchman:

A repair employing a section of sound material (stone, wood, metal, etc) matching the existing to replace a section of deteriorated material.

eave:

The lower part of a roof that projects beyond the wall.

elevation:

The perpendicular view of a side of a building; an accurate drawing of one side of a building that represents its true dimensions in the plane perpendicular to the line of sight. *See Figure 4.*

ell:

A wing or addition extended at a right angle from the principal dimension of building, resulting in an “L” shaped plan.

entablature:

The horizontal member carried by columns, composed of architrave (bottom), frieze and cornice (top). *See Figures 5, 10.*

façade:

The exterior front face of a building; usually the most ornate or articulated elevation.

fanlight:

A half-circular or half-elliptical window; often placed over a door. *See Figure 3.*

fascia:

Any long, flat horizontal band or member.

fenestration:

The arrangement and design of window and door openings in a building.

French door:

A door with a top and bottom rail, stiles (sides) and glass panes throughout most of its height.

frontispiece:

An ornamental portal or entrance bay around a main door.

gable end:

The end wall of a gable-roofed building. *See Figure 6.*

header:

In brick masonry, a brick laid so that its end is exposed in the finished wall surface. *See Figure 7.*

hip:

The external angle at the intersection of two roof planes; a hip roof has roof planes that slope toward the eaves on all sides of the building. *See Figure 14.*

historic context:

The buildings flanking the subject property and the buildings across the street.

historic viewshed:

Views looking towards or from a historic resource or natural or scenic views within a historic district.

hood:

A projecting cover placed over an opening to shelter it.

in-kind:

Replacement building component matching the original component in material, size, profile, texture and color.

light:

A pane of glass in a window sash.

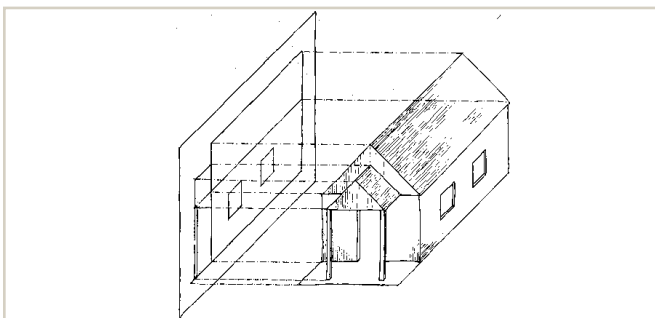


Figure 4

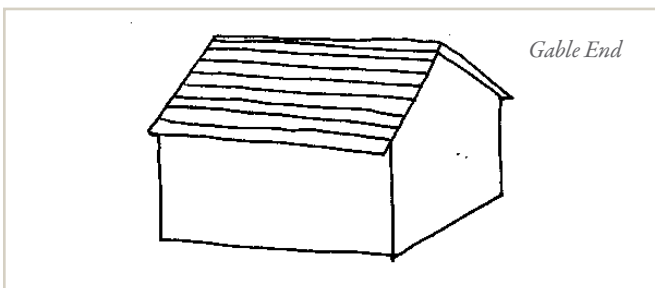


Figure 6

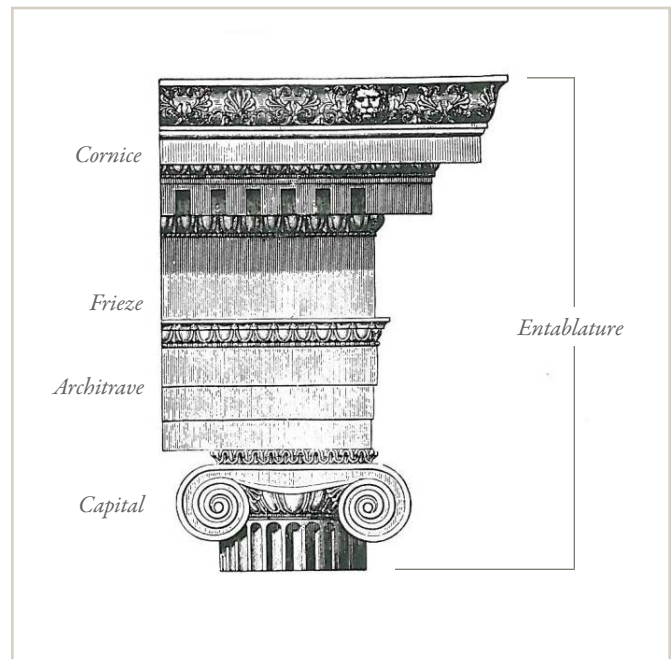


Figure 5

lintel:

A horizontal structural member that spans an opening, for example: a window lintel.

Mansard roof:

A roof that is double pitched, the lower being much steeper, designed to allow a full story height within the attic space. *See Figure 1.*

mass:

Bulk or three-dimensional size of an object.

massing:

The combination of several masses to create a building volume; organization of the shape of a building, as differentiated from wall treatment, fenestration, etc.

mullion:

A vertical member separating windows, doors or panels set in series; often used for structural purposes.

muntin:

A slender member separating panes of glass in a window sash.

order:

In classical architecture, one of the five orders: Tuscan, Doric, Ionic, Corinthian and Composite.

oriel window:

A window structure projecting beyond the main wall plane attached to the building above ground level. *See Figure 9.*

Palladian window:

A three-part window consisting of a prominent center window unit, often arched, flanked by smaller windows. *See Figure 8.*

pane:

A flat sheet of glass cut to size for glazing use in a window; also called a light.

panning:

The wrapping of window trim, door trim, cornices and other exterior woodwork with aluminum or vinyl sheeting.

parapet:

A low wall at the edge of a roof or balcony; the portion of a fire wall or party wall above the roof level.

parge:

A coating of cement-based plaster (stucco) applied over rough masonry work.

pediment:

In classical architecture, the triangular gable end of a roof above a horizontal cornice; a similar triangular form over a door or window. *See Figure 10.*

pergola:

A garden structure with an open wood-framed roof, often latticed.

picket fence:

A fence formed by a series of vertical pales, posts or stakes and joined together by horizontal rails.

pilaster:

A flat vertical element applied to the wall surface that simulates a classical column. *See Figure 3.*

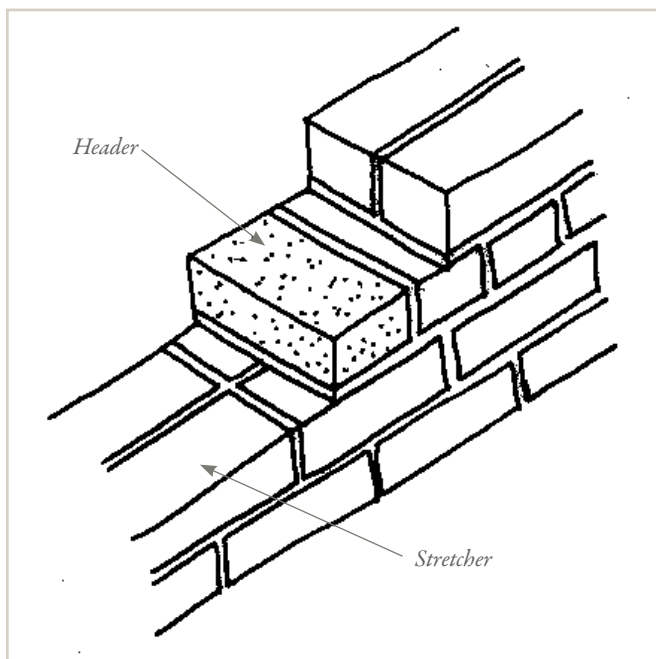


Figure 7

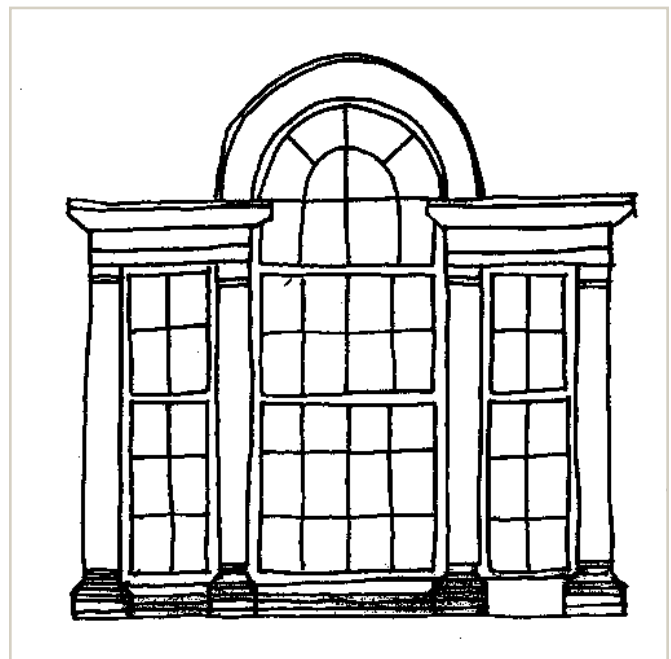


Figure 8

pitch, roof:

The slope of a roof; usually expressed as a ratio of vertical rise to horizontal run (5 inches vertical in 12 inches horizontal, for example 5 in 12 pitch).

plan:

A two-dimensional view of a building, or horizontal section of it, seen from above; hence, a precise drawing showing the arrangement of design, including wall openings and dimensions. *See Figure 11.*

porch:

A structure attached to a building to shelter an entrance or to serve as a semi-enclosed space, usually roofed and generally open-sided.

proportion:

The relation of one dimension to another; usually described as a numerical ratio; in architecture, proportions determine the creation of visual order through the coordination of shapes in a design.

quoin:

A masonry (or simulated masonry) unit applied to the corner of a building; often slightly projecting. *See Figure 12.*

rhythm:

In architecture, the repeated pattern of building elements such as doors and windows.

ridge:

The horizontal line formed by the juncture of the upper edges of two sloping roof planes.

sash:

The movable framework holding the glass in a window.

sealed insulating glass:

Two or more pieces of glass spaced apart and sealed to create an insulating air space.

segmental arch:

An arch in which the arched portion is less than a semi-circle.

shutter:

An external movable screen or door used to cover a wall opening, especially a window; originally for security purposes; often confused with louvered blinds. *See Figure 9.*

sidelight:

A framed area of fixed glass alongside a door or window opening.

sill:

The horizontal lower member of a window or other frame.

simulated divided light (SDL) sash:

A wood sash glazed with a single pane of sealed insulating glass, to which is glued a beveled wood muntin grid at the exterior and a molded wood muntin at the interior, to simulate the appearance of a true divided light window sash.

site plan:

An accurate scaled drawing of a site (lot) as if seen from above, describing the property boundary and orientation, the location of buildings, driveways, walks and other constructed site improvements, the retained vegetation and new plantings and finished grade contours.

skylight:

A glazed opening in a roof plane that admits light.

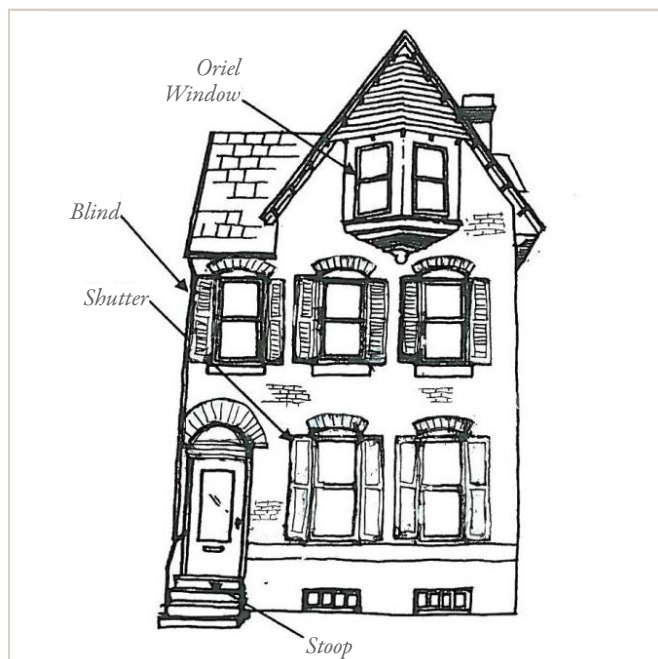


Figure 9

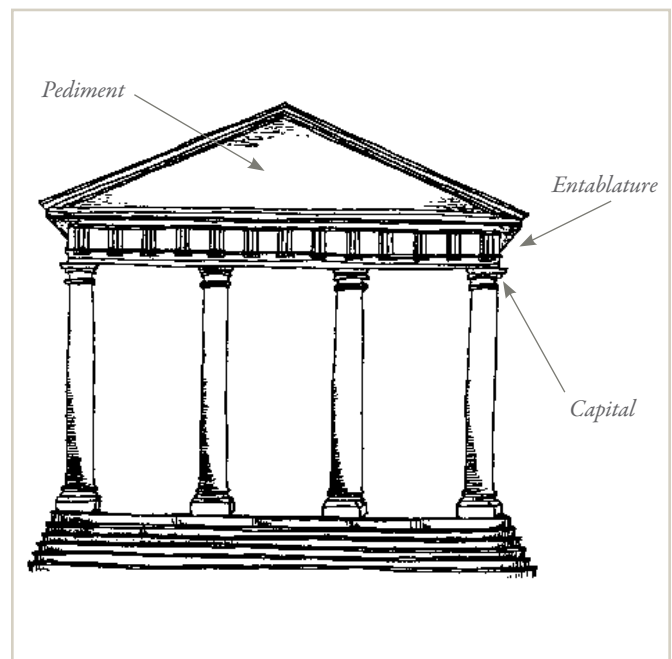


Figure 10

stoop:

An uncovered platform and steps at an entrance. *See Figure 9.*

streetscape:

A setting or expanse consisting of the street, landscaping and buildings along a street, as seen by the eye in one view.

stretcher:

A brick laid with the long side visible in the finished work. *See Figures 7, 13.*

string course:

A horizontal course of masonry or wood trim which projects from a wall. *See Figure 14.*

symmetrical:

A similarity of form or arrangement on either side of a dividing line.

transom:

A horizontal bar of wood or stone separating a door from a transom window above it. *See Figure 3, 14.*

vernacular:

A mode of building based on regional forms and materials.

water table:

A horizontal course of masonry or wood trim separating the foundation walls from the exterior walls above. *See Figure 14.*

Glossary definitions are, in part, based on:

Historic Architecture Sourcebook by Cyril M. Harris, Ed., New York: McGraw-Hill Book Company, 1977

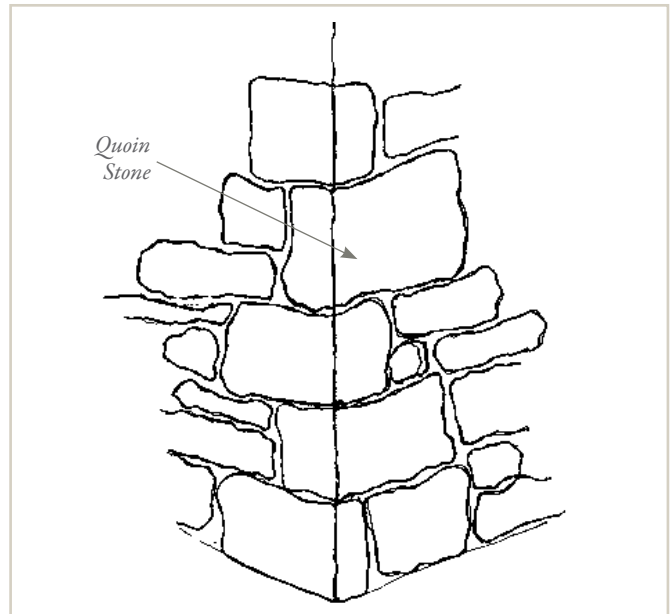


Figure 12

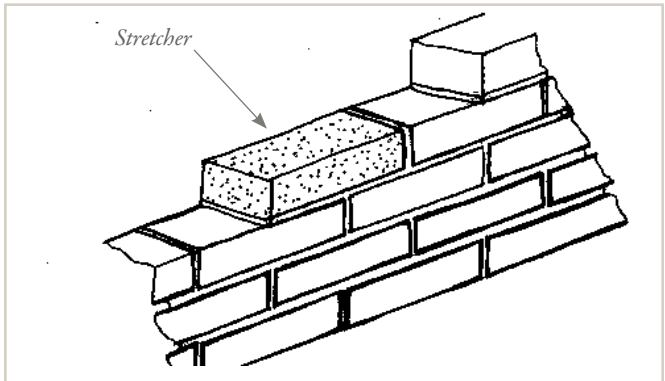


Figure 13

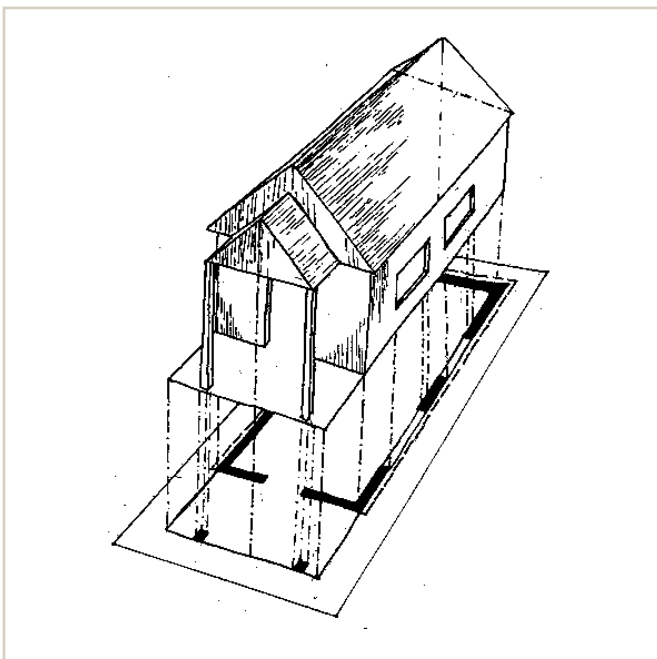


Figure 11

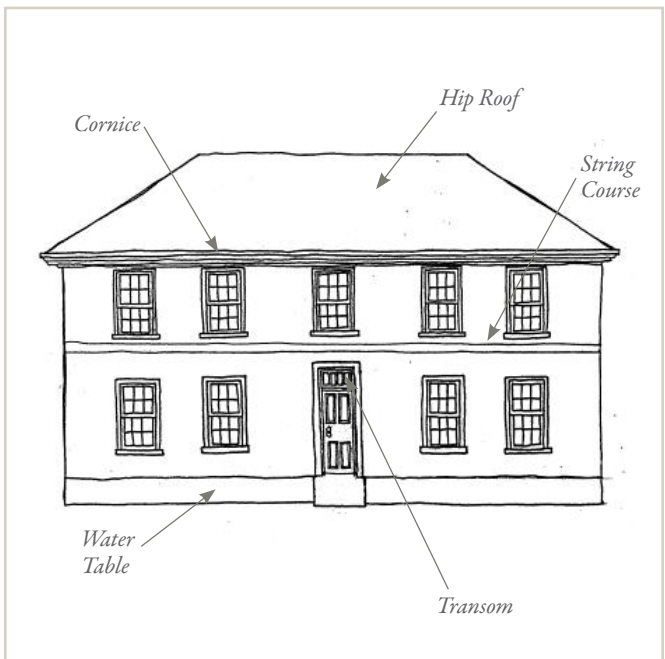
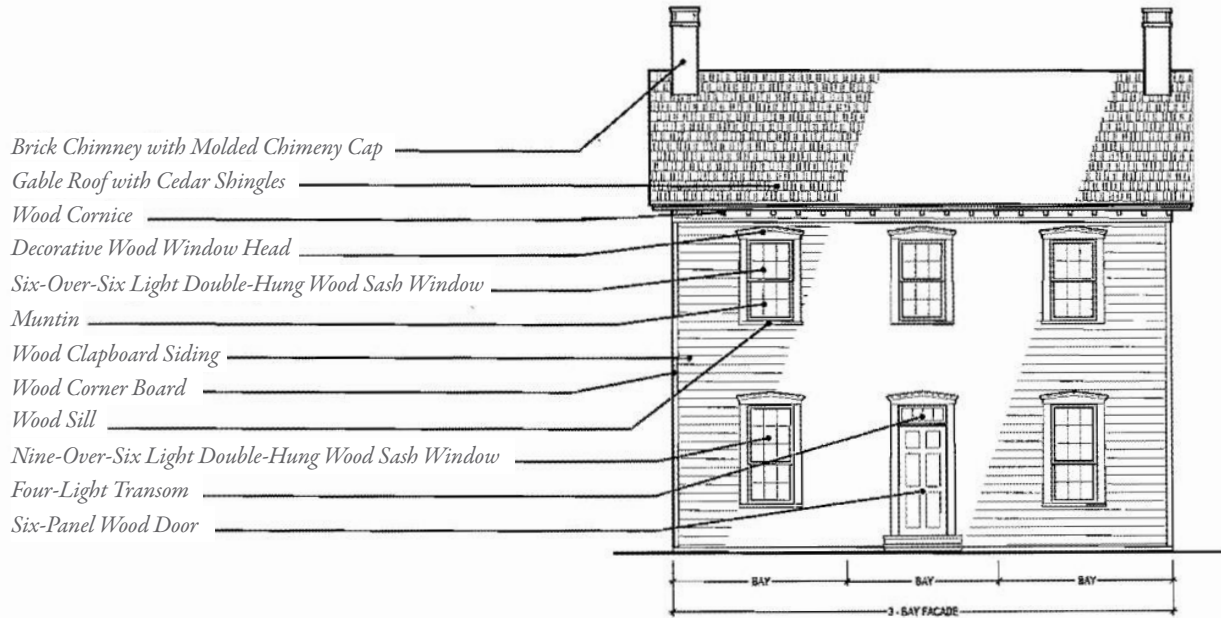


Figure 14

Glossary of Terms



B. THE SECRETARY OF THE INTERIOR'S STANDARDS FOR REHABILITATION

The following Standards are to be applied to specific rehabilitation projects in a reasonable manner, taking into consideration economic and technical feasibility.

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

DEFINITIONS

The following definitions are included in the Secretary of the Interior's Standards, and are useful for distinguishing between various levels of construction activity relating to historic buildings and properties.

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

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.

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

RECONSTRUCTION is defined as the act or process of depicting, by means of new construction, the form, features and detailing of a non-surviving site, landscape, building, structure or object for the purpose of replicating its appearance at a specific period of time and in its historic location.

