HISTORIC PRESERVATION DESIGN GUIDELINES

TOWN OF WELLESLEY

Wellesley, Massachusetts

Commissioned by
Wellesley Historic District Commission

Compiled by
Heritage Strategies, LLC
January 2021

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CHAPTER 1 – INTRODUCTION

The Town of Wellesley is a mature suburban community located in the hills southwest of Boston. First settled in the 1630s, Wellesley became an independent town in 1881. Since then, Wellesley has developed as a predominantly residential community with neighborhoods of distinctive character from all periods of late nineteenth and early, mid, and late twentieth century growth.

These Historic Preservation Design Guidelines are intended as a community-wide resource to inform decision making about changes to older residences from all eras throughout Wellesley. They may also serve as a resource for the Town's Historic District Commission in the review and approval of proposed changes in accordance with the Town's Historic Districts Bylaw.

The design principles outlined in the guidelines and their suggested application to specific types of features, materials, and conditions common to historic residences may be useful to property owners as they consider changes to their historic properties.

WELLESLEY'S DISTINCTIVE HISTORIC CHARACTER

Wellesley's location within the Greater Boston Metropolitan Area and close proximity to the area's urban core has resulted in intensive growth and development since the Town's establishment in 1881. Direct commuter access to the urban core by road, rail, and trolley has dramatically influenced the type, timing, and location of this development.

The early importance of Washington Street, Worcester Street, and others as regional transportation routes established early rural agricultural, village, and estate development patterns. By the time of the Town's establishment, real estate investments in planned residential development tracts typical of a commuter suburb were beginning to occur.

The 1897 Atlas of the Town of Wellesley shows the extent of building and development present at that date. Along Washington Street and the railroad line, large tracts are shown platted for development with streets and lots, only a few of which had yet been built upon. In northern, southern and western portions of the Town, the estate landscapes shown were more open and rural. The presence of prominent places such as Wellesley College and the Hunnewell Estates have enhanced the reputation and prestige of the entire community as a desirable place to live.

Between 1897 and the present, Wellesley has been intensely developed as an affluent suburban landscape. Washington Street has filled in as a commercial and institutional corridor. Most characteristic of the Town, however, are the residential neighborhoods that have spread across Wellesley, with new neighborhoods added throughout the twentieth century.

Wellesley's residential neighborhoods are of distinctive character. They feature many homes of architectural merit set within mature community landscapes of great appeal. The Town's relative affluence has facilitated investment in high quality design as continued growth has increased the density of residential development.

LOCAL HISTORIC DISTRICTS

In 1978, the Town's Historical Commission sought to protect one of Wellesley's earliest neighborhoods in the vicinity of Washington and Cottage Streets as a Local Historic District. Designated by the Town in 1980, the Cottage Street Historic District is comprised of a variety of types of residences constructed between the 1860s and 1910, the earlier of which were modest "cottages" constructed in conjunction with a nearby industrial enterprise before the beginning of suburbanization.

As of this writing, the Cottage Street Historic District is the only neighborhood historic district in Wellesley. However, over the years several individual residences have been established as Single Building Historic Districts by owners wishing to encourage their preservation.

A number of other residential neighborhoods dating to the late nineteenth and early twentieth centuries could be appropriate for designation as Local Historic Districts should residents be interested in the public recognition and preservation protections provided through designation. Local Historic Districts are discussed further in Chapter 4 of these Design Guidelines.

PURPOSE OF THE DESIGN GUIDELINES

These Historic Preservation Design Guidelines were commissioned by Wellesley's Historic District Commission as a resource for property owners within the Cottage Street Historic District and four Single Building Historic Districts to provide guidance in making changes to their historic residences. They are a resource and guide to the preservation and enhancement of historic character within Wellesley's historic residential neighborhoods.

The Design Guidelines outline the character defining qualities and features of residences within the historic districts and provide guidelines for accommodating change while preserving and building upon those qualities and features. They emphasize best practices of historic preservation and specifically address issues associated with preservation and stewardship within historic neighborhoods.

Maintenance and the appropriate treatment of authentic historic fabric is a key aspect of stewardship. Recognizing that change will continue to occur, the Design Guidelines provide guidance for adaptations to historic residences when necessary and for additions and new construction.

The Design Guidelines are a resource to inform decision making about change over time. Rather than providing an answer for every situation, the guidelines outline concepts and principles important to the character of historic residences and suggest how they may be applied. Every situation presents a combination of issues and opportunities that may differ depending upon their context. The information and guidelines included here will help property owners and designers appreciate and respond appropriately to varying situations and issues.

The chapters and sections of the Design Guidelines can serve as a checklist outlining items that should be considered when contemplating change within a neighborhood's historic context. The guidelines provide a strong philosophical foundation that is nonetheless flexible and adaptable to varying circumstances.

Additionally, guidelines can sometimes inspire creative and sensitive solutions that were not envisioned when a project was first proposed. The best outcomes are those that meet the needs of residents while preserving the elements that define historic building character.

USE IN THE APPLICATION REVIEW PROCESS

As discussed in Chapter 4, *The Application Review Process*, the Historic Preservation Design Guidelines will guide the Historic District Commission in the review of proposed construction projects in Local Historic Districts as required by the Town's Historic District Bylaw.

Availability of the Design Guidelines to property owners and designers as they are planning projects not only provides them with guidance in best practices, it is also informative regarding the criteria by which applications to the Historic District Commission will be assessed.

Property owners and designers should use the Historic Preservation Design Guidelines when planning construction projects within the Cottage Street Historic District and other Local Historic Districts designated by the Town. Early consultation with Town staff and the Historic District Commission regarding proposed changes is strongly recommended.

USE WITHIN WELLESLEY'S OTHER HISTORIC NEIGHBORHOODS

The Design Guidelines are also useful in neighborhoods that have not been designated as historic districts. Though the examples shown in the Design Guidelines are taken from the Cottage Street and other Single Building Historic Districts, the topics discussed and advice given are common to historic residences in neighborhoods throughout the Town.

Current Town-wide issues regarding historic residential buildings include:

- Proposed demolition in order to replace existing historic buildings with new, larger residences;
- Inappropriate additions and changes to historic residences that adversely impact their historic character and integrity; and
- The construction of new residences that are inappropriate (often out of scale) with the character of existing residences within a neighborhood.

Wellesley has adopted regulatory mechanisms such as Demolition Review and Large House Review to help mitigate these issues. These Design Guidelines will be useful in the assessment of conditions, impacts, and appropriate responses with respect to these bylaws and their review processes.

ORGANIZATION OF THE DESIGN GUIDELINES

These Historic Preservation Design Guidelines are organized into seven chapters. The first four chapters provide background and context. The final three chapters outline the design guidelines and are illustrated using examples from the Town's Cottage Street and Single Building Historic Districts.

Chapter 1, Introduction, provides a brief background, summary, and overview of the Design Guidelines.

Chapter 2, Wellesley's Historic Districts, describes the Town's existing Local Historic Districts outlining their character, context, and change over time.

Chapter 3, Design Principles for Historic Preservation, presents the philosophical basis and ideas for best practices for historic preservation that are then applied to conditions and features in Chapters 5 through 7 of the Design Guidelines.

Chapter 4, The Application Review Process, outlines the review process conducted by the Historic District Commission for proposed projects within the Town's Local Historic Districts as required by the Historic District Bylaw.

Chapter 5, Historic Building Materials & Treatments, reviews common issues and appropriate treatments for types of materials used in historic buildings, including wood, masonry, stucco, and metals.

Chapter 6, Treatment of Historic Building Features addresses issues and treatments associated with key features in historic buildings, such as roof features, siding and detailing, doorways, windows, porches, and site elements.

Chapter 7, Additions and New Construction, provides guidelines for the design of additions to historic buildings and the design of new buildings in an existing historic context.

It is the hope of the Historic District Commission that these design guidelines will prove useful not only to home owners within the Town's historic districts but to owners of historic residences throughout Wellesley. We appreciate the care and respect that residents have for the Town's historic character, and we look forward to assisting in preserving that character through the common stewardship of our historic resources.

View of a portion of South Cottage Street, Cottage Street Historic District

View of a portion of Weston Road, looking north, Cottage Street Historic District

CHAPTER 2 – WELLESLEY'S HISTORIC DISTRICTS

The Town of Wellesley has a number of historic neighborhoods that could become local historic districts should their residents so desire. In conjunction with its Historic Home Plaques Program, the Wellesley Historical Commission has conducted research on over 760 residential properties in the Town that were constructed over 100 years ago. Most of these properties are located in historic neighborhoods created as planned subdivisions in the late nineteenth and early twentieth centuries.

At present, Wellesley has one neighborhood designated as a Local Historic District, the Cottage Street Historic District, along with four Single Building Historic Districts. These existing historic districts are briefly described below.

THE COTTAGE STREET HISTORIC DISTRICT

The Cottage Street Historic District was designated in 1980 soon after the Town adopted its historic district bylaw. The historic district is located a quarter-mile southwest of Town Hall and its commercial center and primarily includes residences along Cottage Street and Weston Road near their intersection with Washington Street.

The Cottage Street neighborhood was selected for study by the Wellesley Historical Commission because it was felt to have the highest concentration of buildings dating back to the Town's incorporation in 1881. The historic district includes 65 properties, 28 of which date to before 1881 and another 15 that date to before 1900.

The Cottage Street Historic District is described in the Wellesley Historic District Study Committee's 1980 report, which was required for designation and is available on the Historic District Commission's website.

The report's historical overview is conversational and uncited, and a number of the dates for historic homes listed in the report have been subsequently updated through research conducted through the Historic Home Plaques Program.

In 1848, Charles B. Lovewell constructed a prominent Greek Revival residence at what is now 641 Washington Street. In 1854, he had a street laid out on the portion of his property extending from Washington Street (then Sherborn Street) south to Fuller Brook which he subdivided into 32 small lots. The configuration of the lots remains largely intact today.

Originally, the street was called Lovewell Street, but its name was changed to Cottage Street in 1876, representing the character of the small early homes constructed there. Two of the residences existing along the street today are thought to date to 1856/57 and are shown on the 1856 map of Needham, before the Town of Wellesley was incorporated. Five are thought to date to the 1860s, and eight to the 1870s.

Vicinity of the Cottage Street Historic District from the 1897 atlas of Wellesley (Plate 9).

By the early 1860s, Charles Lovewell had built a small shoe factory on the property that is now 630 Washington Street, the intersection of Washington and Cottage Streets. The early homes along Cottage Street are thought to have been built in relation to this factory.

Lovewell sold his factory to John Tucker in 1875. Tucker constructed a larger four-story factory in 1879 adjacent to the original and converted the original into a dormitory for women workers.

In 1885, the Tucker factory was purchased by Pauline Durant, who with her husband Henry had founded Wellesley College in 1870, and Horatio Hunnewell, prominent owner of a nearby estate. The apparent purpose was to eliminate the industrial use from the vicinity. The larger factory building was torn down, and the original building was converted into a dormitory for college students and named Elliot House.

The close proximity of Wellesley College influenced the character and use of the neighborhood. The Lovewell residence became a boarding house for students and faculty. The house at 17 Cottage Street was expanded as a dormitory. Other homes are also believed to have been adapted and enlarged for student and faculty use. In 1911, a dining hall was added to Elliot House; a larger dormitory had been constructed across the street from it as well. Elliot House was demolished in 1953, and the larger dormitory is also gone.

At the south end of Cottage Street near Fuller Brook were at least three hand-laundries. One of the laundries, now 47 and 49 Cottage Street, was later converted to a machine-laundry and was not demolished until 1954. Two cottage-style homes were built on the site in 1956.

Residences continued to be constructed on lots along Cottage Street into the early twentieth century, some possibly replacing smaller earlier structures. At the north end of the street, three large residences were built on the west side of the street by Edwin Rollins, owner of a large residence and property immediately adjacent to the west. Two of the residences, 7 and 11 Cottage Street, were constructed for his sons. The third, 9 Cottage Street, was constructed for his pastor. The 1897 atlas indicates that Rollins also owned the property at 15 Cottage Street.

Detail of Cottage Street area in the 1897 atlas.


WASHINGTON STREET
WABAN STREET
ABBOTT STREET
WISWALL CIRCLE
NORFOLK TERR
LOVEWELL ROAD
DENTON ROAD
HOMESTEAD RD
LEIGHTON ROAD
COTTAGE STREET
APPLEBY ROAD
BELAIR ROAD
BIRCH ROAD
WILDWOOD CIR
WEST RIDING
Wellesley Historic Districts
Cottage Street Historic District

Several homes were moved onto lots along Cottage Street from other locations. The residence at 33 Cottage Street, dating to 1853, was moved here from the Town Hall grounds when Wellesley was incorporated in 1881 and Town Hall was constructed.

The house at 8 Cottage Street was built as a private residence on Denton Road in 1906. It was purchased by St. Andrews Church in 1917 for use as the church's Guild House. In 1948, the house was moved to its current site to make space for construction of a new Parish House.

6 Cottage Street is not technically within the historic district boundary but does contribute to the historic character of the neighborhood. This Shingle Style building was originally constructed on Denton Road in 1899 and served as St. Andrew's Rectory. In 1982, it was moved to a subdivided portion of the church parking lot where Elliot House had been located and converted to a private residence.

58 Cottage Street was originally constructed in 1856 on Grove Street and was later moved to it present location.

Weston Road, like Washington Street, was an early connecting road within the region as shown on an 1856 map of Needham.

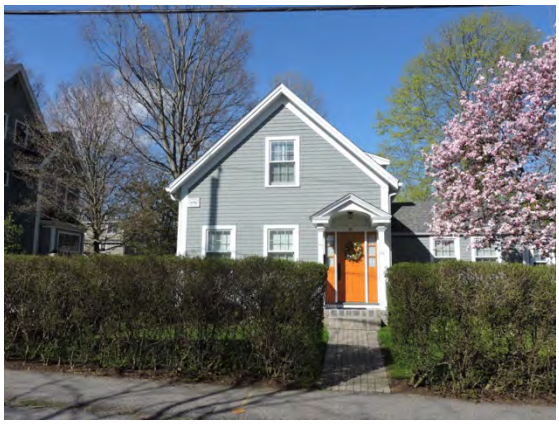
The Washington Street–Weston Road portion of the historic district includes five buildings dating to before 1850, including the Lovewell residence. The home at 631 Washington Street is dated to 1755, while three residences along Weston Road are dated to the 1830s. All have later additions and modifications.

Other residences in the Washington Street–Weston Road area date primarily to the 1880s and 1890s, by which time the vicinity, including Waban and Abbott Streets, was being developed as a residential subdivision.

As outlined above, the Cottage Street Historic District derives from multiple periods of the Town's development ranging from the mid-eighteenth century to the mid-twentieth century but concentrated primarily between the 1830s and 1920s. In this respect, it is different from most of Wellesley's historic neighborhoods, which were developed as discrete subdivisions with houses being constructed during the same general time period.

Consequently, the Cottage Street district has a wide diversity of building types, from early/mid-eighteenth century cottage vernacular and high style Greek Revival residences, to the workers' cottages associated with the Lovewell and Tucker factories, to the affluent late nineteenth and early twentieth century residences associated with the Robbins family, St. Andrews Church, and surrounding subdivisions in general.

Buildings within the Cottage Street Historic District have a high degree of historic integrity, though many of the early smaller residences have been significantly expanded and adapted for changes in use over time.



SINGLE BUILDING HISTORIC DISTRICTS

Single Building Historic Districts are a means through which individual historic buildings can be protected from demolition or inappropriate change by property owners. The protections afforded through designation as a district are similar to those achieved through a preservation restriction or easement, but less costly and easier to implement, with the Town willing to oversee proposed changes to the property through the expertise of the Historic District Commission.

Property owners may have many reasons to desire the protection of their historic building. In the cases of Wellesley's four current Single Building Historic Districts, two were protected because of their rich history, one was preserved for its architectural design and association with its designer, and one was protected for its association with a person of literary note.

Methodist Meeting House Historic District

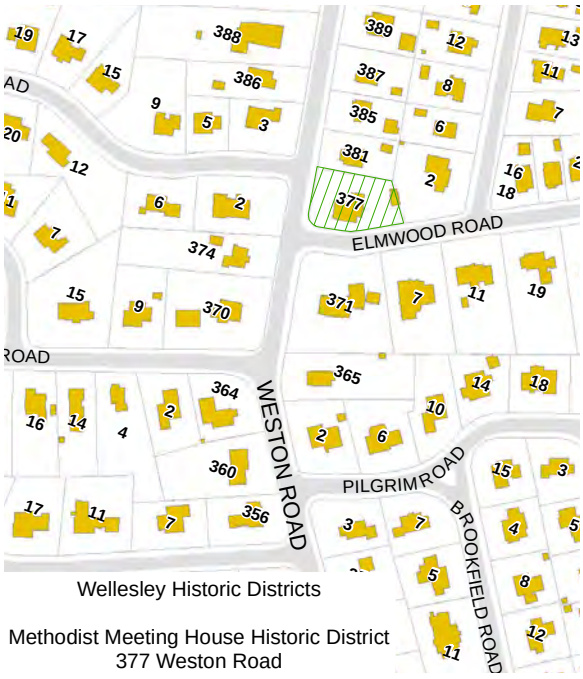
The single family residence known as the Methodist Meeting House is located at 377 Weston Road at the intersection with Elmwood Road. The house was designated as a historic district in 2011 and is reviewed in a professional quality study report available on the Historic District Commission website.

The rectangular core of the building was constructed in 1798 as a Methodist Meeting House at a site about a half-mile north of its current location. The original site of the Meeting is shown on the 1856 map of Needham. The Meeting House fell into disuse after 1842, and in 1860 it was sold at auction to Michael Cavanaugh, who moved it a half mile south to its present location and converted it to a residence.

Cavanaugh was a farmer, and his previous farmhouse had burned. The configuration of the converted Meeting House residence and its related outbuildings (no longer existing) is shown on the 1897 atlas of Wellesley. In the early 1940s, the farm was developed as a subdivision, and the farmhouse was retained on one of the subdivision's small lots.

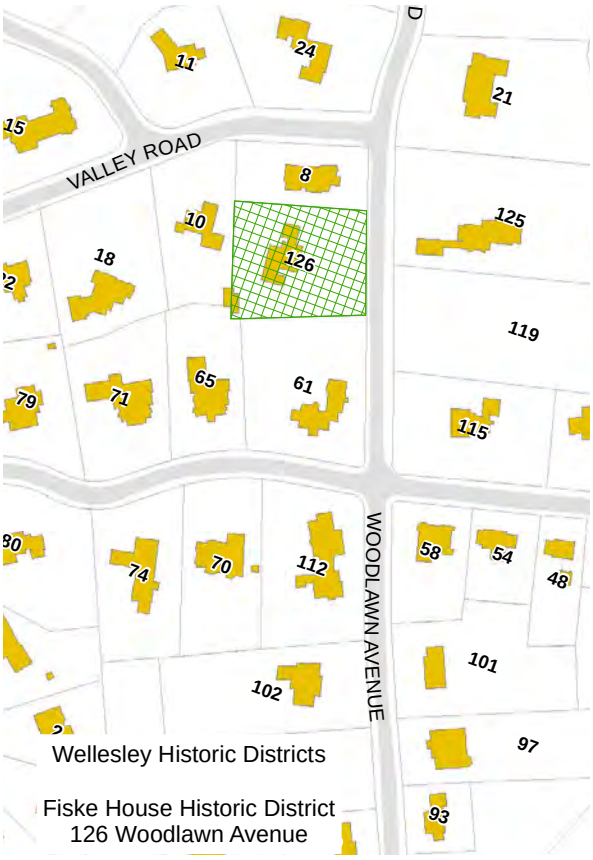
Since its conversion to a residence in 1860 and designation as a local historic district, the Meeting House had been occupied by only three families. Its front porch was added after its conversion, and its original windows were replaced with 2-over-2 wood doublehung windows. A one story addition was added to the rear in 1993. The house exhibits layers of history and architectural detailing dating back to the late eighteenth century and has connections to the social, religious, agricultural, and economic development of the Town.

The Cavanaugh farmstead shown in 1897 on the east side of Blossom Road, now Weston Road.



Wellesley Historic Districts

Methodist Meeting House Historic District
377 Weston Road



Wellesley Historic Districts

Fiske House Historic District
126 Woodlawn Avenue

Fiske House Historic District

The Fiske House is located at 126 Woodlawn Avenue between Valley and Hundreds Roads in the northeastern portion of the Town. The house was designated as a historic district in 2014 and is reviewed in a professional quality study report available on the Historic District Commission website.

The Fiske House was constructed during the first quarter of the nineteenth century, possibly in 1824 in conjunction with a sale of the property at that time. The farmhouse was part of a 180-acre farm that was purchased by Enoch Fiske between 1794 and 1802. It is not known whether an earlier farmhouse on the site was razed or incorporated into the current building. The farmhouse is visible on both the 1856 map of Needham and the 1897 atlas of Wellesley.

For 103 years, from 1833 until 1937, the property was in the possession of the family of Emery Fiske (1803-1868), a cousin of Enoch. Perhaps the most prominent owner was his son, Joseph E. Fiske (1839-1909), who was instrumental in Town affairs, including the incorporation of Wellesley as a separate town.

In the late 1800s, Joseph Fiske sold much of the property associated with the farm to two men each of whom developed their own large estates. The 1897 atlas shows the Fiske House on the remaining 10.58-acre property.

Joseph Fiske's daughter, Ellen Ware Fiske (1871-1953), lived in the house following Joseph's passing. Ellen was influential socially and was known as Wellesley's Town Historian. She sold the property in 1937, probably at the time the Fiske property and two adjacent estates were developed into the Woodlawn Farms subdivision. The historic Fiske House was retained on its current, much smaller residential lot.

The new owners undertook extensive renovations, transforming the residence from an unpretentious early nineteenth century farmhouse into the elegant Colonial Revival residence it is today. Designed by architect and Wellesley resident Walter Henry Pratt, the building was rotated from the south to the east to face the road, and porch and garage wings were added to the new side south and north facades. The former barn to the west of the house was demolished.

The Fiske House is significant architecturally both for its nineteenth century farmhouse design and 1937/38 renovations. It is also significant for its association with the Fiske family and their involvement with and contributions to the Town's history.

The Joseph Fiske property is shown at the center of this detail of the 1897 atlas, after sale of much of the former farm to two adjacent landowners.

Tufts House Historic District

The Tufts House is located at 38 Lowell Road just east of Edmunds Road in the north-central portion of the Town. The house was designated as a historic district in 2011 along with the Methodist Meeting House and is reviewed in the study report available on the Historic District Commission website.

The Tufts House was designed by architect Nathaniel P. Tufts in 1930 for himself and his family and is a well-preserved early example of Colonial Revival residential architecture in Wellesley. It was nominated for designation as a local historic district by Doris Tufts Heinold, Nathaniel's daughter who was living in the house in 2011, in memory of her father and in recognition of the building's outstanding architectural quality.

Nathaniel Tufts studied architecture at Boston University and for many years worked with the architectural firm of Royal Barry Wills, one of the country's best known proponents of the Colonial Revival Movement. In his years with Willis, Tufts studied and reproduced actual interior and exterior details and proportions from the Colonial Period and in doing so helped develop the Willis firm's signature Colonial Revival style.

The Tufts House was one of the first homes built in the Cliff Estates subdivision in Wellesley. In his design, Tufts reproduced the accurate proportions and details of a Colonial house with contemporary interpretation. The quality of the design and his attention to detail resulted in a building of distinction and significance to the 1930 period of residential development in Wellesley.

Silvia Plath House Historic District

The Silvia Plath House is located at 26 Elmwood Road, a block east of the Methodist Meeting House on Weston Road, and was built in 1942. The house was designated as a historic district in 2014 along with the Fiske House and is reviewed in the study report available on the Historic District Commission website.

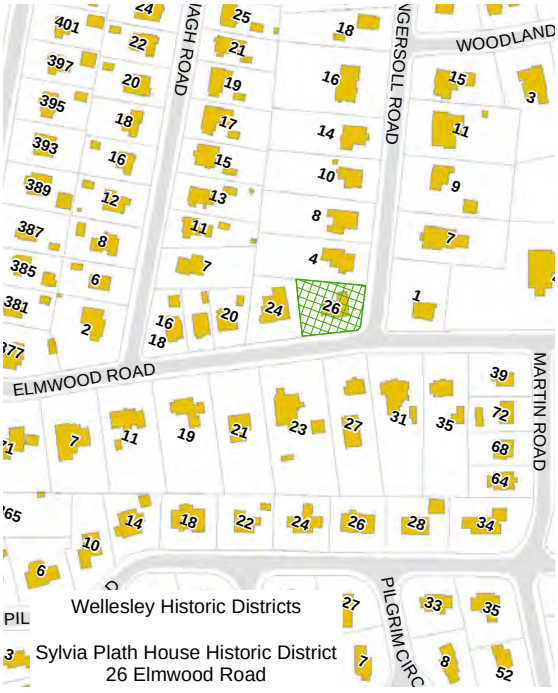
Silvia Plath (1932-1963) was an acclaimed poet and author and lived in the house with her mother and brother soon after it was constructed. Plath attended the Gamaliel Bradford Senior High School (now Wellesley High School) graduating in 1950.

Silvia graduated from Smith *summa cum laude* in 1955 and attended Cambridge University as a Fulbright Scholar. There she married British poet Ted Hughes in 1956. The pair had two children before the stormy relationship ended in separation in 1962.

Plath was clinically depressed for most of her life. She attempted suicide several times and was under periodic medical treatment. In August 1953, while a third year student at Smith College, Silvia made her first documented suicide attempt by crawling under the porch at the Elmwood Road house and taking her mother's sleeping pills. She was there for three days and later wrote of the experience in her semi-autobiographical novel, *The Bell Jar*, completed in 1961.

Plath was a prolific writer and is best known for the poems she wrote in the last years of her life that were published posthumously. She is credited with advancing the confessional style of poetry and wrote about traditional gender roles and the way in which they stifled women. Plath used her writing as an outlet for the haunting and depressed moods that descended upon her throughout her life. She took her own life in 1963 while living in London. In 1982, she was awarded a posthumous *Pulitzer Prize* for her *Collected Poems*.

The Silvia Plath House is a Colonial Revival residence typical of the dwellings constructed in the surrounding Fells area subdivisions between the 1930s and 1950s. The house has remained largely unchanged since its construction. Modifications include a one-story rear addition built in 1988 and the application of aluminum siding to the exterior.



CHAPTER 3 – DESIGN PRINCIPLES FOR HISTORIC PRESERVATION

The principles upon which these design guidelines are based are the foundation of historic preservation practice and have been developed over decades of professional experience working with historic buildings and landscapes. The principles are relatively simple in concept and may be applied to a wide variety of issues and conditions. Every proposed construction project involving a historic building has its distinctive attributes. The design principles for historic preservation are flexible enough to address differing issues, needs, and conditions in a manner that achieves the best possible outcome.

Chapter 3 provides background on several terms and concepts used throughout these design guidelines, including *significance*, *integrity*, and *authenticity*. Appreciation of the meaning and concepts behind these terms helps with understanding of the design principles outlined in the guidelines and how they are applied. Most important in this chapter is its discussion of the *Secretary of the Interior's Standards for the Treatment of Historic Properties*. The Standards are the touchstone for all decision making regarding the treatment of historic buildings and other resources.

Wellesley has the distinction of being densely developed with high quality historic neighborhoods. People want to live in Wellesley because of its distinctive character, and most properties are well maintained. The design principles outlined below provide guidance in decision making about appropriate changes to historic properties.

ACCOMMODATING CHANGE WITHIN A HISTORIC CONTEXT

The following general principles are incorporated throughout these design guidelines in describing the preferred treatment of historic buildings in Wellesley. They outline how needed change may be accommodated in the Town's historic neighborhoods and should be considered in the planning and design of new projects. These principles are based upon the Secretary of the Interior's Standards, which are discussed further later in this chapter.

- Continue to use a property as it was designed to be used, or find a new use that minimizes necessary changes to character defining features.
- Identify and retain distinguishing building and landscape features, qualities, and characteristics.
- Maintain, protect, and repair authentic character defining features, materials, and finishes. If features are deteriorated beyond repair, replace them in-kind. Retain authentic historic building fabric to the maximum extent possible.
- If a feature is missing or must be removed and it is desired that it be replaced, use accurate documentation to guide the replacement work.
- Respect the evolution of historic changes, fashion, taste, and use – do not try to "improve" the design of authentic building features.
- Avoid installation of conjectural "historic" features.
- Do not use maintenance methods or materials that damage significant building and landscape fabric.

Needed change can usually be accommodated in a sensitive manner that helps strengthen historic character. Where new construction is required:

- Design new construction in a contemporary but respectful manner. Additions and alterations to historic buildings and landscapes should speak of their own time but should be compatible with the character of the existing resource.
- Follow an established design process that identifies character defining features, explores a range of possible design alternatives, and selects a workable alternative that maximizes the preservation of historic building fabric.
- Accommodate the program or use driving needed changes to the maximum extent possible without significantly altering or destroying the character of existing resources.
- Respect the surrounding building and landscape context.
- Maintain a high quality of design and craftsmanship.
- Existing buildings often have multiple layers of history and change that are of significance, should be preserved, and can inspire creative and compatible design solutions for new construction.
- New construction should not destroy character defining building or landscape features or materials.
- Understand that future change will continue to occur. Make allowances for future change in new work.

SIGNIFICANCE, INTEGRITY, AND AUTHENTICITY

The concepts of *significance*, *integrity*, and *authenticity* are central to the design principles for historic preservation and are referenced throughout these guidelines. The background and meaning regarding these concepts are discussed below and should be helpful in providing context for specific recommendations in the design guidelines.

Historic Significance – In historic preservation, historic districts, buildings, and other resources are evaluated for *historic significance* according to established professional criteria developed in association with listing in the National Register of Historic Places. Those criteria state that:

The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

A That are associated with events that have made a significant contribution to the broad patterns of our history, or

B That are associated with the lives of persons significant in our past; or

C That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

D That have yielded or may be likely to yield, information important in prehistory or history.

Wellesley's historic neighborhoods possess historic resources significant to all four categories listed above.

Wellesley's neighborhoods are representative of the broad patterns of history in Massachusetts and the nation, particularly with respect to education and residential development in conjunction with a major urban center. Historically significant persons have lived in Wellesley and left their mark on the Town's physical presence in a variety of ways.

Wellesley's historical development has resulted in the construction of buildings that embody the distinctive characteristics of type, period, and method of construction for the region included in category C above, particularly with respect to residential building. Archeological resources are significant because they are likely to yield information about the region's history and prehistory.

Historic Significance is present in districts, sites, and buildings that:

- Are associated with events contributing to the broad patterns of our history,
- Are associated with the lives of significant persons,
- Embody the distinctive characteristics of a type, period, or method of construction, or
- Have yielded or may yield important information.

Integrity — Integrity is the authenticity of a property's historic identity, evidenced by the survival of physical characteristics that existed during the property's period of significance. The seven qualities of integrity, as defined by the National Register program, are location, setting, feeling, association, design, workmanship, and materials.

Integrity measures the degree to which the historically significant materials, features, and characteristics of a resource still exist. Integrity is frequently assessed by how much of a resource's historic fabric is intact. Historic building fabric includes features (such as porches, windows, stairways, and trim), and materials (such as wood, stone, and plaster). Authentic woodwork, brickwork, entrances and windows and other historic fabric that survives help make the historical significance of a resource visible.

When a resource retains a great deal of authentic historic fabric, the integrity of the resource is generally considered to be "high." When there is little historic fabric remaining, integrity is generally considered to be "low." Preservation efforts frequently focus on preserving the integrity of a resource by preserving historic fabric. Retaining the integrity of a resource is of paramount importance in preservation.

Historic significance accrues to a building or resource over time, and changes that have occurred to a resource can be historically significant.

Many historic buildings, for example, incorporate a mixture of stylistic elements that have been added to an original structure over many years. These additions and alterations are a part of the evolution of the building. They contribute to its story and significance and therefore also contribute to its integrity.

For instance, an 1890s Victorian porch may have been added to an 1850s vernacular farmhouse. Today, that porch would be over one hundred and twenty years old. The porch is part of the richness of the building's historical development, and it is a record of the changing ownership, values, perceptions, and events even though it is not part of the "original" farmhouse. Removing such a feature would destroy that record and would probably diminish the overall integrity of the resource.

Integrity measures the degree to which the historically significant materials, features, and characteristics of the resource still exist. When a resource retains a great deal of authentic historic fabric, the integrity of the resources is generally considered to be "high."

Authenticity – The term *authenticity* in historic preservation is defined as:

(1) the character of an historic property representing a substantial proportion of original fabric and materials, and

(2) the interpretation of an historic property based on the understanding of its history and the characteristics of the culture or cultures that created it.

Authenticity related to original historic fabric is a physical manifestation – the preservation of authentic historic fabric is central to the treatment recommendations included in these design guidelines.

Authenticity related to the interpretation of a historic property is associated with the meaning and historic significance attributed to the property.

Integrity vs. Condition – While the *integrity* of a historic resource reflects the presence of authentic materials and features, the *condition* of the resource concerns its appearance and structural soundness.

A building with a sagging roof, peeling paint, and broken windows may be in poor condition but may at the same time have a high degree of integrity. The foundation may need to be rebuilt, the walls may need to be repainted, and window panes may need to be replaced. Doing so may improve the building's condition, but if these steps are taken without regard for retaining authentic historic fabric, the building's integrity may be diminished.

Maintaining a building in good condition may seem at odds with maintaining its integrity, but decisions about condition or integrity can be balanced if appropriate measures are taken.

Appropriate maintenance procedures performed throughout the history of a building will maintain its condition *and* preserve its integrity. Inappropriate maintenance or lack of maintenance frequently leads to a loss of historic fabric and integrity.

In appropriately maintaining a building or other resource, it is usually preferable to retain authentic historic fabric even if that fabric is not in the best condition, provided that there is no threat of further deterioration to the structure. When authentic historic fabric cannot be retained, it should be replaced in-kind (with identical materials and construction).

Authenticity refers to the character of a historic property representing a substantial proportion of original fabric and materials.

PRESERVATION PRINCIPLES AND TREATMENTS

The recommendations of these design guidelines are informed and guided by principles of historic preservation that have been developed and honed by practitioners in the field over the years. Preservation is a practical discipline that can accommodate growth and change while continuing to preserve the characteristics that make a place special. As emphasized above, the principles that have been developed in the field of historic preservation in general recognize the importance of preserving authentic historic fabric to the maximum extent possible.

Building uses come and go, but once lost, original historic fabric can never be recovered. The maintenance and preservation of original historic fabric, features, materials, and design elements, therefore, is central to a sound preservation approach.

The principles of historic preservation are embodied in the topic of *Preservation Treatments* and in *The Secretary of the Interior's Standards for the Treatment of Historic Properties*, both of which are discussed below.

Preservation Treatments

The historic preservation field uses a variety of terms to describe the treatments that may be applied to historic buildings and landscapes. Although sometimes these terms are used loosely in discussion, they have specific meanings that are important to distinguish. The four key preservation treatments include: Preservation, Rehabilitation, Restoration, and Reconstruction.

Preservation is defined as the process of applying measures necessary to sustain the existing form, integrity, and materials of an historic property. Work, including preliminary measures to protect and stabilize features, generally focuses on the ongoing maintenance and repair of historic materials and features. Removals, extensive replacement, alterations, and new additions are not appropriate.

Preservation stresses protection, repair, and maintenance and is a baseline approach for all historic resources. As the selected treatment for a historic property, preservation implies minimal or no change. It is therefore strictly applied only to buildings and resources of extraordinary significance that should not be altered.

In Wellesley, highly significant early buildings such as eighteenth century churches are appropriate for preservation treatment.

Rehabilitation is defined as the process of creating a compatible use in a historic property through carefully planned minimal alterations and compatible additions. Often referred to as adaptive reuse, rehabilitation protects and preserves the historic features, materials, elements, and spatial relationships that convey historical, cultural, and architectural values.

Rehabilitation acknowledges the need to alter or add to a property to meet continuing or new uses while retaining historic character. New, expanded, or upgraded facilities should be designed to avoid impacts to historic elements. They should also be constructed of compatible materials. Retention of original historic fabric should be a primary consideration in undertaking a program of rehabilitation and adaptive reuse.

Rehabilitation is perhaps the most important and widely used treatment in the field of historic preservation, particularly in communities that are experiencing change and adapting to new uses. This includes the kinds of residential changes that are driving new projects impacting historic homes and neighborhoods in Wellesley. Rehabilitation is the appropriate treatment for most historic residential and commercial buildings throughout the Town.

Restoration refers to returning a resource to its appearance at a specific previous period of its history. Restoration is the process of accurately depicting the form, features, and character of a property as it appeared at a particular time by means of removal of features from other periods in its history and the reconstruction of missing features from the restoration period.

In restoring a property to its appearance in a previous era, historic plans, documents, and photographs should be used to guide the work. Limited and sensitive upgrading of mechanical, electrical, and plumbing systems, as well as code-related work to make a property functional, are all appropriate within a restoration project.

Restoration is usually only undertaken for buildings of special significance where returning it to its appearance during a particular era is of importance, perhaps for educational or interpretive purposes or perhaps just because of the building's quality. Restoration is seldom undertaken in active residential neighborhoods.

Reconstruction is defined as the process of accurately depicting the form, features, and character of a non-surviving historic property using new construction for the purpose of replicating its appearance at a specific period of time and in its original location.

A reconstruction is a new resource made to replace an historic resource that has been lost. Reconstruction is a rarely used preservation treatment applicable primarily in educational and interpretive contexts.

Of these four terms:

- *Preservation* requires retention of the greatest amount of historic fabric, features, and materials.
- *Rehabilitation* acknowledges the need to alter or add to a property to meet continuing or new uses while retaining historic character.
- *Restoration* allows for an accurate depiction of the property's appearance at a particular time in its history.
- *Reconstruction* establishes a framework for re-creating vanished historic elements with new materials.

Preservation and Rehabilitation are the most appropriate and applicable treatments for most historic buildings and landscapes in Wellesley.

Rehabilitation is the process of creating a compatible use in a historic property through carefully planned minimal alterations and compatible additions.

Rehabilitation is perhaps the most important and widely used treatment in the field of historic preservation, particularly in communities that are experiencing change and adapting to new uses.

This includes the kinds of residential changes that are driving new projects impacting historic homes and neighborhoods in Wellesley.

Secretary of the Interior's Standards

The philosophy that guides the recommendations in these design guidelines is based on a set of guidelines entitled *The Secretary of the Interior's Standards for the Treatment of Historic Properties*, commonly called the "Secretary of the Interior's Standards" or simply the "Standards."

The *Secretary of the Interior's Standards* were created by historic preservation professionals to provide guidance in the appropriate treatment of historic resources. The *Standards* were first established by the federal government in 1966 to provide guidelines for the appropriate treatment of buildings and resources impacted by federal projects. Because of their usefulness, they have been adopted throughout the field of historic preservation.

All federally funded and permitted activities affecting historic resources are evaluated with respect to these standards, including the use of rehabilitation tax credits. The *Standards* were developed specifically to prevent unintended damage to or loss of historic resources by federal actions, such as those that occurred as the result of the wholesale demolition of historic neighborhoods though urban renewal as occurred in urban areas in the 1950s and 60s.

An individual set of standards was developed for each of the four preservation treatments discussed above. Just as the treatment of Rehabilitation is appropriate for most projects, the ***Standards for Rehabilitation*** are applicable to most projects being undertaken for historic buildings and landscapes in Wellesley.

In the language of community planners, *The Secretary of the Interior's Standards* are a list of "best practices" for historic preservation. They are a touchstone for all activities affecting historic buildings and landscapes and help ensure that important issues about the care of historic buildings and landscapes are not forgotten in the process of making decisions about other issues. When the *Standards* are used in the context of a new construction project involving an historic building, they provide a starting point for the discussion of proposed changes to the building's historic character and fabric. They were developed to ensure that policies toward historic resources were applied uniformly, even if the end result may be different in every case.

In the language of community planners, *The Secretary of the Interior's Standards* are a list of "best practices" for historic preservation.

They provide the basis for the review of proposed projects in Wellesley's historic districts.

All preservation activities, whether they are publicly or privately funded, can be informed and enhanced by understanding the *Secretary of the Interior's Standards*. Because the *Standards* outline a sensitive approach for assessing changes to historic properties, they are often included in design guidelines and ordinances that govern activities affecting local historic districts. They provide the basis for the review of proposed projects in Wellesley's historic districts as outlined in Chapter 4 and throughout these design guidelines.

The *Standards* articulate basic principles that are fundamental to historic preservation. Although they have been modified over the years to accommodate changing views of historical significance and treatment options, their basic message has remained the same.

The durability of the *Standards* is testimony not only to their soundness, but also to the flexibility of their language. They provide a

philosophy and approach to problem solving for those involved in managing the treatment of historic buildings, rather than a set of solutions to specific design issues. Following a balanced, reasonable, and disciplined process is often more important than the exact nature of the treatment option that is chosen. Instead of predetermining an outcome in favor of retaining or recreating historic features, the *Standards* help ensure that the critical issues are considered.

For federal projects and federal agencies, the language of *The Secretary of the Interior's Standards for the Treatment of Historic Properties* is codified in 36 CFR Part 68 (the Code of Federal Regulations, Title 36, *Parks, Forests and Public Property*, Chapter 1 *National Park Service, Department of the Interior*, Part 68). A related federal regulation, 36 CFR Part 67, addresses the use of the *Standards* in the certification of projects receiving federal rehabilitation tax credits.

The *Standards* are published by the U.S. Department of the Interior, National Park Service, and are available online, including definitions for the four preservation treatments discussed above (NPS 2018).

The Secretary of the Interior's Standards for Rehabilitation are particularly useful when considering the appropriate maintenance of historic buildings; the alteration of older buildings as necessary for reuse, safety, and accessibility; and the construction of new buildings in an historic context.

The ten standards that comprise the *Standards for Rehabilitation* are quoted below followed by a brief discussion of the implications of each. Additional discussion of the *Standards for Rehabilitation* may also be found online.

STANDARD 1 – ***A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.***

Standard 1 recommends compatible use in the context of adaptive reuse and changes to historic buildings and landscapes. This standard encourages property owners to find uses that retain and enhance historic character, not detract from it. The work involved in reuse projects should be carefully planned to minimize impacts on historic features, materials, and spaces. The destruction of character defining features should be avoided.

STANDARD 2 –***The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.***

Standard 2 recommends the retention and preservation of character defining features. It emphasizes the importance of preserving integrity and as much existing historic fabric as possible. Alterations that repair or modify existing historic fabric are preferable to those that require total removal.

STANDARD 3 – ***Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.***

Standard 3 focuses on authenticity and discourages the conjectural restoration of an entire property, feature, or design. It also discourages combining and/or grafting historic features and elements from different properties and constructing new buildings that appear to be historic. Literal restoration to an historic appearance should only be undertaken when detailed documentation is available and when the significance of the resource warrants restoration. Reconstruction

of lost features should not be attempted without adequate documentation.

STANDARD 4 – ***Changes to a property that have acquired historic significance in their own right will be retained and preserved.***

Standard 4 recognizes that buildings change, and that many of these changes contribute to a building's historic significance. Understanding a building's history and development is just as important as understanding its original design, appearance, and function. This point should be kept in mind when considering treatments for buildings that have undergone many changes.

Most historic buildings contain a visual record of their own evolution. This evolution can be identified, and changes that are significant to the history of the building should be retained. The opportunity to compare multiple periods of time in the same building lends interest to the structure and helps communicate changes that have occurred within the larger landscape and community context.

STANDARD 5 – ***Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.***

Standard 5 recommends preserving the distinctive historic components of a building or landscape that represent its historic character. Workmanship, materials, methods of construction, floor plans, and both ornate and typical details should be identified prior to undertaking work.

STANDARD 6 – ***Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.***

Standard 6 encourages property owners to repair historic character defining features instead of replacing them when historic features are deteriorated or even missing. In cases where deterioration makes replacement necessary, new features should closely match historic conditions in all respects. Before any features are altered or removed, property owners are urged to document existing conditions with photography and notes. These records assist future choices that are appropriate to the property's historic character.

STANDARD 7 – ***Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.***

Standard 7 warns against using chemical and physical treatments that can permanently damage historic features. Many commercially available treatments are irreversibly damaging. Sandblasting and harsh chemical cleaning, in particular, are extremely harmful to wood and masonry surfaces because they destroy the material's basic physical properties and speed deterioration.

STANDARD 8 – ***Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.***

Standard 8 addresses the importance of below ground prehistoric and historic features. This issue is of most importance when a construction project involves excavation. An assessment of a site's

archeological potential prior to work is recommended. If archeological resources are present, some type of mitigation should be considered. Solutions should be developed that minimize the need for excavation of previously unexcavated sites.

STANDARD 9 – ***New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.***

STANDARD 10 – ***New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.***

Standards 9 and 10 are linked by issues of the compatibility and reversibility of additions, alterations, and new construction. Both standards are intended to 1) minimize the damage to historic fabric caused by building additions, and 2) ensure that new work will be different from, but compatible with, existing historic conditions. Following these standards will help to protect a building's historic integrity.

In conclusion, the basis for the *Standards* is the premise that historic resources are more than objects of aesthetic merit – they are repositories of historical information. It is important to reiterate that the *Standards* provide a framework for evaluating preservation activities and emphasize preservation of historic fabric, honesty of historical expression, and reversibility. All decisions should be made on a case-by-case basis. The level of craftsmanship, detailing, and quality of materials should be appropriate to the significance of the resource.

ADDITIONAL INFORMATION

More information is available about historic preservation and the appropriate treatment of historic buildings. The Massachusetts Historical Commission (the Commonwealth's officially designated state historic preservation office) and Preservation Massachusetts (a state-wide non-profit organization) provide information, conduct training workshops, are generally available for technical assistance, and can be accessed online.

Many preservation architects and planners in Massachusetts are experienced in work with historic buildings and historic communities. Experienced consultants should be retained in the design of most construction projects and should oversee the work of contractors.

Another important source of information is the National Park Service (NPS) website, *www.nps.gov* and the website of its Cultural Resources Division, *www.cr.nps.gov*. Technical information about preserving historic buildings is available through the NPS Technical Preservation Services. Printed versions of these materials are also available for purchase. Key reference materials posted on the National Park Service websites include:

Preservation Briefs – The NPS has published the *Preservation Briefs* since 1975, and over fifty of them have now been created. Each of these briefs addresses a specific preservation issue. They are designed to be easy-to-read guides on preserving, rehabilitating and restoring historic buildings. Preservation Briefs are available online at the NPS Technical Preservation Services website: *https://www.nps.gov/tps/about.htm.*

Preservation Tech Notes – The *Preservation Tech Notes* series and *ITS Bulletins* have been prepared by preservation specialists for the NPS. These publications are technical guides intended for preservation professionals such as architects, contractors, and maintenance personnel, as well as for owners and

developers of historic properties. They provide practical information on traditional practices and new techniques for sensitively maintaining and preserving cultural resources.

Over 45 of the Tech Notes are available to the public, and most are available online at the NPS Technical Preservation Services website: *https://www.nps.gov/tps/about.htm*.

National Register Bulletins – The NPS bulletin series provides guidance in the documentation, evaluation, and nomination of historic sites to the National Register. The series is divided into four sections: The Basics, Property Types, Technical Assistance, and General Guidance. Several additional brochures about National Register programs are also available. They may be accessed online at *https://www.nps.gov/nr/publications/.*

Preservation is a practical discipline that can accommodate growth and change while continuing to preserve the characteristics that make a place special.

The principles that have been developed in the field of historic preservation in general recognize the importance of preserving authentic historic fabric to the maximum extent possible.

CHAPTER 4 – THE APPLICATION REVIEW PROCESS

These Historic Preservation Design Guidelines are intended to inform decision making in the design of projects involving historic residences and new construction within any of Wellesley's historic neighborhoods. However, they are specifically intended for use within the Town's designated Local Historic Districts, both for the use of property owners and their designers in the planning and design of new projects and for the use of the Historic District Commission in the review and approval of proposed projects.

Chapter 4 discusses Local Historic Districts and how they can be used by residents and property owners for the protection of their historic neighborhoods. It reviews the differences between Local Historic Districts, which are a local regulatory mechanism within the Town's Zoning Bylaw, and National Register Historic Districts, which are an honorary designation at the national level.

This chapter outlines the review process for proposed projects within the Town's designated Local Historic Districts, which is required before a building permit or demolition permit for a project can be issued. Local Historic Districts are an important regulatory tool for guiding appropriate change within historic neighborhoods. For property owners planning proposed projects, use of these design guidelines and early consultation with the Town's Planning Department staff and the Historic District Commission is recommended.

LOCAL HISTORIC DISTRICTS VS. NATIONAL REGISTER HISTORIC DISTRICTS

Local Historic Districts

A Local Historic District is a zoning provision adopted by a town as part of its zoning bylaw through which protections against detrimental changes are provided to historic neighborhoods and, in some towns, commercial areas.

Local Historic Districts help preserve the character and integrity of a historic neighborhood by requiring that proposed alterations or construction visible from a public way are consistent with and do not adversely affect the overall character of the neighborhood.

These protections are provided through an application review process by an appointed Historic District Commission. The review process is usually triggered by an application for a building permit, although other items that do not require building permits, such as fences, may be subject to historic district review as well.

In the application review process, proposed alterations and new construction are evaluated in relation to guidelines outlined in the bylaw. Additional design guidelines prepared specifically for the Local Historic District, such as this document, may also be referenced.

Guidelines are interpreted and applied based upon the existing character of buildings and landscapes within the historic district.

Wellesley's Local Historic Districts are created pursuant to state enabling legislation as authorized in MGL, Ch. 40C. The proposal to establish a Local Historic District for a specific neighborhood is prepared by a study committee, which may be the Historic District Committee or in certain circumstances a committee appointed by the Board of Selectmen, usually upon the request of residents.

Once appointed, the study committee is responsible for conducting an investigation of historic resources, developing a report of its findings and recommendations, and conducting a public hearing on the proposal. A bylaw for a proposed Local Historic District is then presented to Town Meeting for approval, which requires the vote of a two-thirds majority.

Local Historic Districts are often created through the initiative of local property owners seeking protection against changes that threaten the character of their historic neighborhoods and their properties. Sometimes such initiatives are sparked by a controversial new project, such as the demolition or inappropriate alteration of a historic building or the construction of a new building that is visually inappropriate to the neighborhood.

One of the primary threats to historic neighborhoods in Wellesley has been the demolition of smaller historic buildings and their replacement with large new residences that are oversized and out of character with their surroundings.

Wellesley's Demolition Review and Large House Review Bylaws have been adopted by the Town to help mitigate this "teardown" issue. Both of these bylaws have limited authority, however. The Demolition Review Bylaw, for instance, results in a maximum twelve-month delay after which the demolition may proceed. In a Local Historic District, demolition may not be permitted and new construction is required to be in character with other buildings in the neighborhoods in size, form, and massing.

A Local Historic District is one of the most effective local regulatory tools for the protection of historic buildings and neighborhoods.

National Register Historic Districts

A National Register Historic District is completely different from a Local Historic District and is strictly an honorary designation involving no local regulatory controls.

National Register Historic Districts are created by the nomination and listing of a historic neighborhood on the National Register of Historic Places.

The National Register is the nation's official list of historic resources that have been determined worthy of preservation. Resources may be significant at the local, state, or national level. It is administered by the National Park Service and was created in 1966 through federal legislation as a means of professionally evaluating historic properties with respect to potential federal actions.

The Massachusetts Historical Commission, a state agency, partners with the National Park Service in the administration of the National Register program in Massachusetts.

Listing on the National Register of Historic Places is an honorary recognition resulting from official professional determination that a property or district is significant to our history. Many property owners, neighborhoods, and communities seek listing on the National Register as an element of pride and appreciation of the quality and significance of their properties.

Listing on the National Register does not place any obligation or restrictions on property owners. Designation as a National Register Historic District does not give the federal, state, or local government any ownership or regulatory controls with respect to private property.

Listing does, however, bestow official professional recognition of the historical significance of a property or a district. Additionally, it can help protect a property from certain types of federal and state governmentally funded or licensed actions. It also enables property owners to make use of federal and state rehabilitation tax credits for qualified rehabilitation work.

The National Register is also important at the local level because it identifies and evaluates resources according to uniform, professionally recognized standards. These standards are specifically designed to help state and local governments, organizations, and individuals identify important historic resources worthy of preservation and consideration when making local planning and land development decisions.

Local Historic Districts are an important local regulatory tool that can be used by residents and property owners for the protection of their historic neighborhoods.

Local Historic Districts guide appropriate change through a process of design review.

Proposed new projects should be undertaken in a manner consistent with professional standards for the treatment of historic properties, as outlined in these design guidelines.

WELLESLEY'S HISTORIC DISTRICT BYLAW

Wellesley's Historic District Bylaw is enumerated in *Section 14D, Historic Districts*, of the Town of Wellesley Zoning Bylaw. The stated purpose of the bylaw is to:

Promote the education, cultural, economic and general welfare of the public through the preservation and protection of the distinctive characteristics of buildings and places significant in the history of the Town of Wellesley and the Commonwealth, or their architecture, and through the maintenance and improvement of settings of such buildings and places and the encouragement of design compatible therewith.

The bylaw states that no building or structure within an Historic District shall be constructed or altered in any way that affects exterior architectural features unless the Town's Historic District Commission shall first have issued a:

- Certificate of Appropriateness,
- Certificate of Non-applicability, or
- Certificate of Hardship

with respect to such construction or alteration.

No building permit for construction of a building or structure or for alteration of an exterior architectural feature and no demolition permit for demolition or removal of a building or structure shall be issued until a Certificate has been issued.

Exterior architectural features are defined as such portions of a building or structure open to view from a public street, public way, public park, or public body of water, including but not limited to the:

- architectural style and general arrangement and setting thereof;
- kind, color and texture of exterior building materials;
- color of paint or other materials applied to exterior surfaces; and
- type and style of windows, doors, lights, signs, and other appurtenant exterior fixtures.

Exceptions to this list are outlined on the following page.

Certificate of Appropriateness: Upon review, if the Historic District Commission determines that a proposed construction or alteration project will be appropriate for or compatible with the preservation or protection of the Historic District, the Commission shall issue a Certificate of Appropriateness for the project and a building permit may be issued.

In the case of a *disapproval* of a proposed project, the Commission shall communicate the reasons for its determination to the applicant and for the record.

Prior to the issuance of a disapproval, the Commission may notify the applicant of its proposed action and make recommendations of changes to the applicant's proposal which, if made, would render the application acceptable to the Commission. The applicant may then submit modifications to the proposal in conformity with the recommended changes, which shall result in approval and issuing of a Certificate of Appropriateness.

In most cases, a discussion back and forth between the Commission and the applicant and his/her designers regarding any design issues of concern results in accommodation and consensus and the approval of proposed projects. These Historic Preservation Design Guidelines are intended to inform design decisions early in the project's planning and facilitate the review process.

Certificate of Non-Applicability: Upon review, if the Historic District Commission determines that a proposed project does not involve any exterior architectural feature or involves a feature which is not subject to review (see Exceptions, below), the Commission shall issue a Certificate of Non-Applicability for the project, and a building permit may be issued.

Certificate of Hardship: Upon review, if the Historic District Commission determines that disapproval involves a substantial hardship (financial or otherwise) to the applicant and that the proposed project is without substantial detriment to the general public and the intent of the bylaw, the Commission may issue a Certificate of Hardship for the project, and a building permit may be issued.

Exceptions: The following categories of buildings, structures, or exterior architectural features are listed in the bylaw as not subject to review within the Historic District and may be constructed or altered without review by the Historic District Commission. This list may be altered over time by amendment of the Zoning Bylaw.

- Temporary structures or signs;
- Terraces, walks, sidewalks, and similar structures provided that any such structure is substantially at grade level;
- One antenna per building, storm doors and windows, screens, window air conditioners, lighting fixtures, and similar appurtenances;
- The color of paint, provided that the paint color does not cause substantial derogation from the intent and purpose of the bylaw and is in keeping with accepted aesthetic standards;
- The color or materials used on roofs;
- Signs of not more than one square foot in area for a residence in conjunction with a home occupation and if illuminated is illuminated only indirectly; and
- The reconstruction of a building, structure, or exterior architectural feature damaged or destroyed by fire, storm, or other disaster provided that the exterior design is substantially similar to the original and that the reconstruction is begun within one year thereafter and carried forward with due diligence.

Ordinary Maintenance, Repairs, and Replacement: The Historic District bylaw does not prevent the ordinary maintenance, repair, or replacement of any exterior architectural feature which does not involve a change in design, material, color, or outward appearance of the feature.

Nor does the bylaw prevent the landscaping of a historic property with plants, trees, or shrubs; nor any requirements certified by a duly authorized public officer to be necessary for public safety.

A Certificate of Appropriateness documents the consensus of the Historic District Commission and property owner that a proposed project is consistent with the character of the Historic District.

Review of proposed projects must be undertaken before a building permit or demolition permit may be issued.

Some types of projects that do not require a building permit, such as installation of fences, are also subject to review and approval.

INITIAL PLANNING STEPS

No matter what type of project is being undertaken within a historic neighborhood or district, it is strongly recommended that several important steps be undertaken during the initial stages of planning a project.

It is recommended that the design of projects within historic neighborhoods and districts be undertaken by design professionals experienced in the rehabilitation and adaptive reuse of historic buildings. For larger projects, such professionals are usually architects and structural engineers. For smaller projects, such professionals may be non-architect designers or contractors experienced in work with historic buildings.

For issues related to the condition and appropriate treatment of historic building fabric, it may be desirable to use the expertise of professional building materials conservators who understand historic building systems and the unique problems associated with some historic materials. Contractors with demonstrated experience in work with historic buildings may be able to assist as well, though care must be taken that they indeed have the appropriate experience.

In addition:

- Early in the design process, identify authentic historic fabric associated with all periods of the building's development, as discussed throughout these design guidelines, and assess their existing conditions.
- Where changes in the use of a building are proposed, determine how the new use might be accommodated within the building.
- Examine options for needed changes and how they would impact the historic building and historic building fabric.
- Meet with Planning Department staff at an early stage in the design process before the preparation of design or construction documents and before submitting an application to discuss the project, design principles, and application and review processes. Continue consultations on an ongoing basis throughout the design process.
- If suggested by Planning Department staff, meet informally with the Historic District Commission at one of its regular meetings at an early stage in the design process before the preparation of design or construction documents and before making application to discuss the project.

  Such discussion will provide the applicant with useful guidance upon which to base the project's design but shall not be binding upon the Commission, which can only make its determination based upon an application and full submission.

Consultations should be undertaken before design and construction documents are prepared to make sure that proposed changes are consistent with the historic character of the property and its context.

APPLICATION AND REVIEW PROCESS

Application and Fees: Applications for Certificates of Appropriateness, Non-Applicability, or Hardship are made by submission of an Application for Certificate (form available online) to the Wellesley Planning Department along with required fees and materials describing the proposed project.

Submission Materials: *Eight sets* of materials describing the proposed project should be submitted at the time of application. No meetings or public hearings will be set until all required materials are received and have been determined by Planning Department staff to be adequate.

Submission materials include:

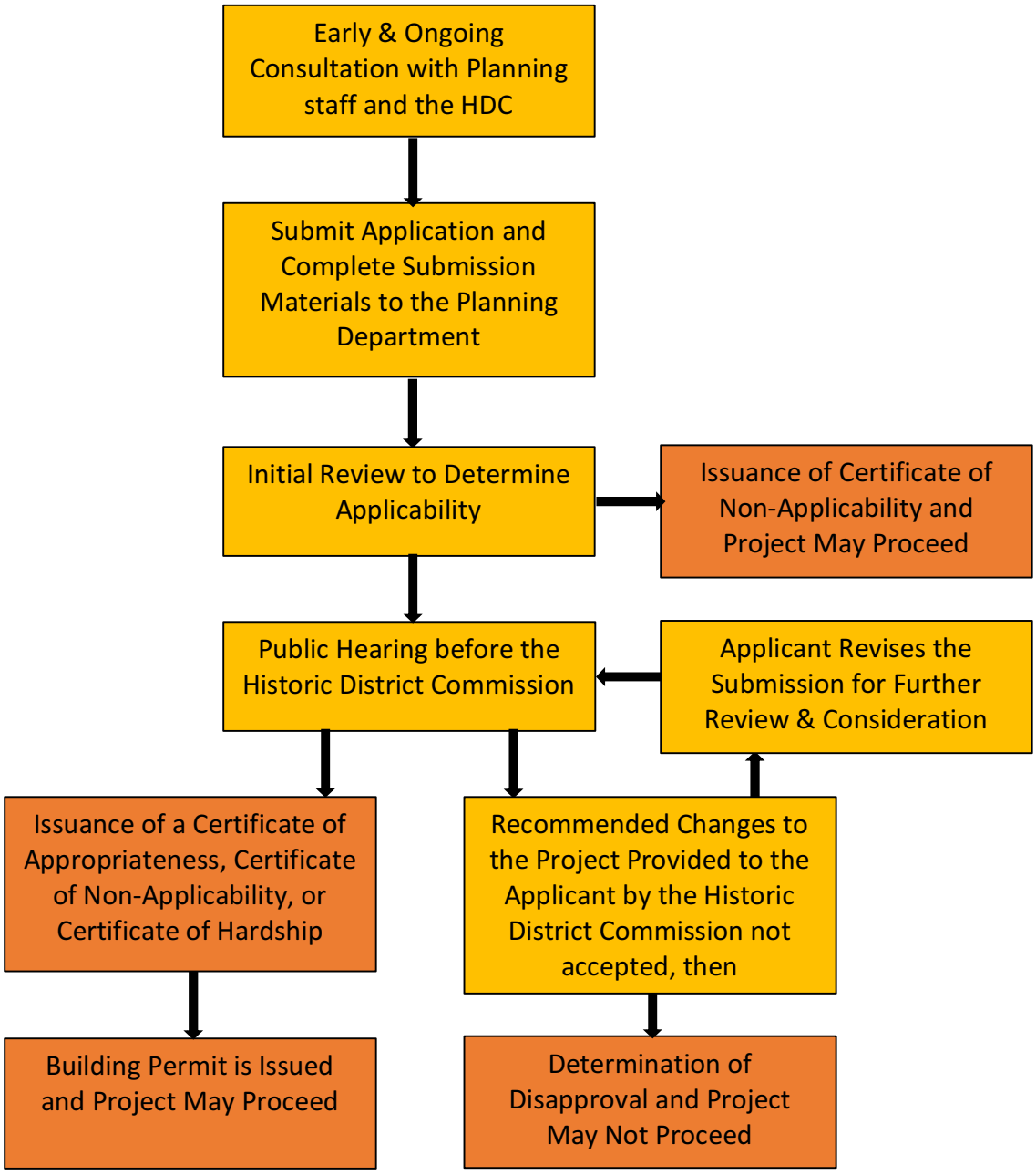
1. Scaled drawings, including at minimum site plans, floor plans, elevations, and details of significant features;
2. Photographs of all buildings or structures viewable from a public street, way, park, or body of water;
3. Description and/or samples of the materials to be used for any alteration or construction;
4. Written narrative or description of the project addressing the following:
    a. Scope of the proposed work being performed;
    b. Historic and architectural value and significance of the site, building, or structure;
    c. General design arrangement, texture, and material of the features involved and the relation of such features to similar features of buildings and structures in the surrounding area;
    d. In the case of new construction or addition to existing buildings or structures, the appropriateness of the size and shape of the building or structure both in relation to the land upon which the building or structure is situated and to the buildings or structures in the vicinity; and
    e. How the proposed project is in harmony with the historic aspects or the architectural characteristics of the surroundings and of the Historic District.

Initial Review: Within *fourteen days* of the receipt of an application, fees, and all required submission materials, Planning Department staff in consultation with and on behalf of the Historic District Commission shall determine whether the proposed project involves any exterior architectural features and is subject to review by the Commission.

If the project is not subject to review, the Historic District Commission shall issue a Certificate of Non-Applicability, as described above.

Applications and submission materials must be complete before the review process can begin and required meetings and public hearings can be scheduled.

Project review sometimes requires changes agreed to between the Historic District Commission and the property owner, which must be documented and may require more than one meeting.



HISTORIC DISTRICT DESIGN REVIEW PROCESS

Public Hearing: If the proposed project is subject to review, Planning Department staff shall schedule a public hearing for the project to be held during a regular meeting of the Historic District Commission.

Public notice of the hearing shall be given by mail to the owners of adjoining properties and other properties deemed to be affected at least *fourteen days* in advance of the hearing. Such notice will be organized by Planning Department staff. The Town Building Inspector, Planning Board, any person filing written requests for such notice, and others deemed entitled by the Commission shall also receive notice of the hearing.

At the public hearing, the applicant and his/her representatives shall present the proposed project to the Historic District Commission and engage in discussion and answer questions regarding the project.

Should it be determined by the Historic District Commission that additional information or materials are required in order for the Commission to make a determination regarding the project, or if changes to the proposal are recommended by the Commission for approval, the applicant will be asked to grant a continuation of the hearing in writing to a subsequent meeting of the Commission before which the needed materials can be provided and/or changes to the project documented.

Determination: As soon as convenient after the public hearing and within *sixty days* after the filing of a complete application and submission (unless a waiver or continuation is granted by the applicant in writing), the Historic District Commission shall make a determination regarding the application.

The determination may be:

(a) that a Certificate of Appropriateness, Certificate of Non-Applicability, or Certificate of Hardship should be issued for the project, in which case a building permit and/or demolition permit may be issued and the project may proceed, or

(b) that such certificates should not be issued, in which case a building permit or demolition permit may not be issued and the project may not proceed.

Planning Department staff shall notify the applicant as soon as possible upon a determination being made. The reasons for any determination of disapproval of an application shall be made in writing for inclusion in the record and shall be provided to the applicant.

Once an official determination is made, the applicant may file a new application with proposed changes to the project addressing the stated reasons for disapproval for further review and discussion by the Historic District Commission.

Should the Commission fail to make a determination within the required timeframe, a Certificate of Hardship shall be used for the project.

Hearing Waiver: The requirement for a public hearing may be waived by the Historic District Commission should the Commission determine that the the proposed changes are so insubstantial in their effect on the Historic District that the application can be reviewed without a hearing and provided notice is given to adjacent property owners and there is no objection within ten days of mailing of such notice.

A public hearing also need not be held if the hearing is waived in writing by all persons entitled to notice of the hearing.

Appeal of Determination: Any applicant aggrieved by a determination of the Historic District Commission may request a review by a qualified person as designated by the Metropolitan Area Planning Council.

Such request must be made in writing to the Commission within *twenty days* of the filing of the determination with the Town Clerk. The review shall be conducted within *forty-five*

days. The results of the review shall be binding on the applicant and the Commission. Further appeal, however, may be sought by the applicant in Superior Court.

REVIEW CRITERIA AND GUIDELINES

In its review of proposed projects, the Historic District Commission considers, among other things, (a) the historic and architectural value and significance of the site, building, or structure; (b) the general design arrangement, texture, and material of the features involved; and (c) the relation of such features to similar features of buildings and structures in the surrounding historic context.

With respect to additions and new construction, the Commission considers the appropriateness of the size and shape of the building or structure both in relation to (a) the land area upon which the new construction is to be situated and (b) other buildings or structures within the vicinity. If deemed necessary, the Commission may impose dimensional and set-back requirements in addition to those required by other applicable bylaws.

The considerations of the Historic District Commission are informed and directed by the *Secretary of the Interior's Standards for the Treatment of Historic Buildings* as discussed in Chapter 3 above, and especially the *Standards for Rehabilitation*.

The information, recommendations, and guidelines outlined in Chapters 5 through 7 of these Historic Preservation Design Guidelines provide specific guidance to decision making during the design process related to issues and topics of concern to the Commission.

As stated in the Historic District Bylaw, the Historic District Commission only makes recommendations and requirements for the purpose of preventing developments incongruous to the historic aspects or architectural characteristics of the surroundings and of the Historic District.

These design guidelines and the use of the *Secretary of the Interior's Standards* help assure that decisions are made on a professional basis and not on the basis of personal aesthetic preferences.

PROJECT IMPLEMENTATION AND COMPLIANCE

Following the approval of a project through the issuance of a Certificate of Appropriateness and subsequent building permit, compliance with the terms of the Certificate of Appropriateness as documented in the final approved submission materials is monitored by the Town's Building Inspector in consultation with Planning Department staff.

In some cases, the review of completed construction documents will be required before construction work can begin to assure consistency with the approved submission materials from the application review process.

The completed project must be consistent with the approved documents. Where a Certificate of Occupancy is required, such certificate can only be issued once consistency with approved documents is confirmed by the Building Inspector and Planning staff.

CHAPTER 5 – HISTORIC BUILDING MATERIALS & TREATMENTS

The treatment of historic building materials is an important part of any maintenance, rehabilitation, or restoration project and should be reviewed for appropriateness in the same way as the design of a new building feature for historic properties throughout Wellesley. Common exterior building materials used in residential architecture include wood, brick, stone, stucco, and metals, each of which is discussed below.

The quality of different building materials varied over time as the methods used in their production improved. In the eighteenth and early nineteenth centuries, building materials tended to be locally produced. Wood was cut from local forests and shaped into building materials at saw mills and by hand onsite. Wood was not always properly cured and dried as it is today, and the assorted wood species and quality of lumber varied by project. Bricks were molded and baked using clays from local clay pits, and the use of field stone was common in wall construction. Lime and sand for mortar was locally obtained and varied in quality; cement was not available.

Construction systems and technologies changed with time as well. Interestingly, construction systems tended to decline in quality during the mid and late nineteenth centuries, as larger and increased numbers of buildings were attempted through sometimes experimental and expedient means. It wasn't until the late nineteenth and early twentieth centuries that professional standards in building material production and building systems began to be developed and implemented.

Consequently, it is important that the quality and condition of materials and systems be evaluated on a case by case basis as projects involving historic buildings are undertaken. Appropriate treatments must be determined based upon the specific conditions observed. General guidelines for the treatment of historic building materials are outlined below.

WOOD

Wood is the predominant material used in the construction of residences in Wellesley's historic neighborhoods. Most of the Town's historic residences are built with wood structural systems; wood exterior coverings; wood detailing; and wood features such as doors, windows, porches, railings, and steps. Wood is also present in the Town's historic masonry residences (as well as many commercial buildings) for interior structural framing as well as doors, windows, and architectural detailing. Since most of the Town's historic buildings contain a significant amount of wood, it is important to understand the general characteristics of wood as a building material.

When used as an exterior building material, wood is vulnerable to weathering and deterioration. The ongoing condition of a wood building and its elements is highly dependent upon the extent and quality of regular maintenance. As versatile as it is, wood can only perform satisfactorily when it is protected from the natural forces that weaken and deteriorate it: weathering, rot, animals, and insects. The capacity of wood to resist these forces depends on periodic inspection and immediate response to warning signs. Without routine inspection and prompt remedial action, wood deterioration will accelerate rapidly on a building's interior and exterior. Early detection and repair thus avoids more extensive and costly repair later.

Rehabilitation projects need to anticipate the need for ongoing maintenance, address vulnerable situations, and avoid creating conditions that will be susceptible to deterioration.

Historically, wood was used extensively for its structural and aesthetic value. In particular, historic wood siding and wood details are highly visible and significant features of a building's exterior. In Wellesley's historic neighborhoods, these wood features include clapboard, shingles, porches, columns, balustrades, shutters, cornices, trim, windows, and doors. Wood was the primary building material used during successive historic periods in Massachusetts and is characteristic of eighteenth century buildings as well as the late-nineteenth century vernacular Victorian and early-twentieth century revival styles found in many of the Town's residential neighborhoods.

Condition and Causes of Wood Deterioration

Exterior wood conditions for residential buildings in Wellesley's historic neighborhoods are generally very good. Only a small number of buildings exhibit significant areas of deferred maintenance. Problems such as wood deterioration, water penetration, peeling paint, and weathered surfaces are common in buildings where preventative maintenance is not routine. In Wellesley's residential buildings such conditions tend to be of limited extent and located in particularly vulnerable locations – seldom a threat to the entire building.

Wood is the predominant material used in the construction of residences in Wellesley's historic neighborhoods.

Wood buildings of all eras were historically painted – wood finishes exposed to the exterior should be protected from the weather with paint. When properly maintained, wood can be durable and serviceable for many years. Painted surfaces that are damaged or deteriorating may be cause for concern.

The most prevalent problem affecting architectural wood is water penetration from poorly maintained roof drainage systems. Conditions in roof valleys and around chimneys can be difficult to see and monitor. Clogged gutters overflowing with debris, sagging and loose gutters, inadequate downspouts, and damaged eaves, soffits, and fascias can rot wood and cause interior water damage. Large shrubs and trees in close proximity to buildings contribute to wood deterioration and failure by trapping moisture and slowing the evaporative process.

Decay and Rot – Peeling paint can be an early sign of high moisture content in the underlying wood. Rot is caused by water penetration that softens and breaks down the fibrous structure of wood and supports the growth of various types of fungi. In the forest, rotting is a natural, healthy process, but it can be fatal to buildings. The growth of fungi is a clear sign that rotting is occurring. To survive, fungi usually require wood to have a moisture content of at least twenty percent as well as the correct temperature range.

Keeping wood dry is the best way to prevent rot. Fungi can substantially weaken the structural integrity of wood, diminishing its capacity to carry loads or its ability to withstand crushing. Without these capabilities, a building's wooden frame can be rendered useless.

The presence of rot indicates that moisture is present. Simply attending to the rotted wood is inadequate unless it also addresses the source of the moisture. If this source is not discovered and eliminated, rot will recur and spread.

Moisture penetration most often occurs for one of the reasons listed below:

- Leaking roof or gutters;
- Inadequate or deteriorated flashing;
- Peeling paint;
- Unventilated spaces;
- Improper insulation or lack of a vapor barrier;
- Poor drainage or rainwater removal around the foundation;
- High watertable or rising damp; or
- Plumbing leaks.

This siding shows some indication of peeling. A small metal vent has been installed to allow interior moisture to escape, rather than allowing it to move through the wood causing the paint to fail.

The fascia and soffit boards of this cornice have rot due to moisture drawn from contact with the roofing. The hole in the soffit on the underside of the cornice is probably an entranceway for squirrels.

Animals – A common problem associated with wood buildings is their attractiveness to animals for nesting. Birds, squirrels, mice, and rats are of particular concern, though other species can also be a problem. Birds and squirrels frequently enter the building through small holes in eaves and gables and at other locations where materials come together. The holes are generally visible from the exterior. Older mid-nineteenth century buildings constructed close to the ground over crawl spaces are particularly susceptible to mice and rat infestation.

Insects – Some types of insects are natural enemies of wood and can quietly but dramatically destroy the structural stability of wood members in a short period of time. These insects include termites, powder post beetles, and carpenter ants.

This hole in historic wood siding may have been intentionally cut as a vent, but it has been widened by chewing animals and nesting material can be seen inside.

Wood Treatment

Rehabilitation projects should address issues of water penetration, decay, and rot when they are present. The sections on roofs and wood siding in Chapter 6 address many of the issues related generally to wood. But for every proposed project:

a. **Building Assessment:** In conjunction with any new project, undertake an assessment of the building looking for signs of water penetration and decay. Repair conditions that are identified.

b. **Causes of Deterioration:** Where deterioration, decay, or rot are observed, determine and address the source and cause of the condition – do not simply repair the deteriorated wood without addressing its cause. Monitor the condition after repairs to assure that the right cause was identified.

c. **Selective Repair:** In general, rotted wood should be removed and replaced, particularly if it is structural. It is usually not necessary, however, to remove an entire wood element but only the rotted portion.

d. **Use of Consolidants:** Where limited rot has occurred, commercially available epoxy consolidants can be used to give strength to the existing wood and no removal is necessary.

e. **Dutchmen:** For more extensive repairs, the deteriorated portion of the wood element can be removed and a small piece of new wood (called a *dutchman*) installed as a patch in the original wood feature, limiting the amount of authentic fabric removed.

f. **Structural Assessment:** For wood structural elements, a structural engineer should be consulted for the nature and extent of the repair required.

g. **Painting:** Wood finish material exposed to the exterior should be protected with properly applied paint. A good paint job should last twelve to fifteen years. Basic guidelines for painting are included in Chapter 6 in the discussion of wood siding, details, and trim.

h. **Bird and Squirrel Holes:** Once identified, birds and squirrels should be chased out and the holes repaired. Extensive damage can be caused by the animals inside the structure, and the holes allow moisture inside the walls causing rot.

i. **Mice and Rats:** Mice and rats generally enter through holes at grade level and live in basements, crawlspaces, and floor structure. They nest in hidden locations, chewing wood and wiring. Mice and rats should be controlled through periodic inspections by professional pest treatment services.

j. **Insects:** A professionally qualified firm should be retained to inspect and treat vulnerable buildings.

The presence and good condition of original wood features on so many historic residences in Wellesley after many decades of service is proof that wood is an economic long-term material.

BRICK MASONRY

Brick is sparingly present in Wellesley's Cottage Street Historic District but is more common in the Town's other historic neighborhoods. Although brick is a material of substantial longevity, it is still vulnerable to deterioration. To remain in good condition, brick must maintain its structural stability and its ability to deal with moisture. Bricks are baked. Like a loaf of bread, they are comprised of an outer crust and a softer inner core. Without the outer crust, the inner core of the brick is vulnerable to rapid deterioration. Bricks are also porous. Like a sponge, they absorb moisture. Brick walls must be allowed to dry out if they are to remain in good condition.

The quality of the bricks used in historic buildings varies considerably depending upon the quality of the materials being used and the quality of manufacture. Mid-nineteenth century bricks were often produced locally without suitable technological expertise or supervision. Different quality brick was used for different purposes. Often the interior portions of a wall were laid with inexpensive, poor quality brick. Higher quality brick was reserved for the exterior surface. When stressed or exposed to weathering or deterioration, the poor quality brick on the interior can be a threat to the structural integrity of the wall and the building.

By the early twentieth century, manufacturing standards and techniques had improved, and brick was being produced in large volume by competent manufacturers and shipped long distances by railroad. Issues of poor quality were less common. When undertaking rehabilitation projects, brick walls should be carefully inspected for signs of deterioration. Bricks perform best when they are laid with bricks of a similar type, and when the mortar recipe is carefully matched to the appropriate type of brick.

Condition and Causes of Brick Masonry Deterioration

Moisture penetration and improper maintenance are the most common causes of the deterioration of brick masonry. When water gets into a wall it can freeze, causing cracking in the wall and spalling of the face of the brick. Moisture penetration can be caused by leaking roofs, flashing, and gutters; deteriorated window sills; wall cracks; missing mortar; and rising damp. Improper maintenance can also damage brick and can include sandblasting or the use of hard pointing and bedding mortars. These conditions are discussed further below.

The treatment and repair of deteriorated brick masonry is an important part of any rehabilitation project involving a brick building or brick feature in a wood framed building.

This building is one of the few brick residences within the Cottage Street Historic District. Brick buildings are more numerous in other historic Wellesley neighborhoods.

Rising Damp – Rising damp is a common and serious problem in humid environments and where there is poor drainage. Dampness in the soil or on paving is absorbed by a wall and drawn upwards by capillary action. Since a brick wall "breathes," moisture within the wall gravitates to the exposed surface, resulting in a moist, clammy feeling near the base of a wall.

Open Joints – Open masonry joints are among the most common problems observed in historic buildings, particularly older buildings with soft mortar that are not being well maintained. Open joints are particularly dangerous because they allow water to enter the wall and then freeze in cold weather. When water freezes, it expands causing cracking of the masonry and providing more ways for water to enter.

Cracks – Cracks are worrisome for two reasons: (1) they indicate that a building's walls are moving and (2) they provide opportunities for moisture penetration and further deterioration. Cracking may be caused by settlement, structural failure, freezing of moisture within the wall, or the rusting of metal within the wall.

Spalling – Spalling of the surface of a brick can be caused by absorption of water in the brick which then freezes and spalls off the face of the brick. Spalling causes the soft inner core of the brick to be exposed to the weather, continue to absorb water, and rapidly deteriorate within the wall.

Steel Lintels – In masonry buildings constructed during the twentieth century, it has been common practice to install steel lintels above door and window openings. Frequently, these lintels rust over time. The rusted steel expands, causing cracking and the jacking of the masonry above the opening.

Efflorescence – Efflorescence is a whitish stain that is prevalent in newly laid brick walls and sometimes occurs on older walls. It results from water-soluble salts that have crystallized and risen to the surface of bricks and mortar. Extensive appearance of this stain may signal a moisture problem in the wall.

Chimneys are the most frequently present brick features in wood buildings within the Cottage Street Historic District. Difficult to access, this brick chimney has open joints which will absorb water.

The surfaces of these bricks have spalled.

Jacking of a steel lintel at the window to the right has caused cracking of the brick masonry at left.

Brick Masonry Treatment and Repair

a. **Sandblasting**: Brick walls should never be sandblasted. Sandblasting removes the protective outer crust of the brick and exposes the softer inner core. This inner core was not meant to be exposed directly to the weather and will deteriorate rapidly. Sandblasting can also break mortar joints, which can lead to moisture penetration.

b. **Cleaning**: Cleaning should use only the gentlest means necessary, such as a low pressure water and natural bristle brushes. Soap may be used if necessary. Use water pressure at no more than 300 pounds per square inch (psi). High pressure water spray can have similar damaging effects to those of sandblasting.

c. **Chemicals:** If chemical treatments must be used for cleaning, obtain the advice of a building materials conservator or historic preservation professional on appropriate products, means, and methods. Consult with the manufacturer's representative for any products under consideration for use. Prepare a test panel before treating the whole wall.

d. **Crack Diagnosis:** Cracks in brick masonry should be properly diagnosed before undertaking any repair work. Cracks caused by structural stresses should be investigated by a structural engineer to determine their cause and appropriate remedial repairs. Any underlying structural problems must be addressed before performing repairs.

e. **Crack Repair:** Cracking through masonry joints should be repaired by repointing the affected joints. Cracking through brick units may require the replacement of the cracked units with new brick to match that existing. Use mortar and masonry techniques outlined below in the discussion of pointing and mortar.

f. **Spall Repair:** Remove spalled brick units and replace with new brick to match the existing in size, color, texture, and strength. Use mortar and masonry techniques outlined below in the discussion of pointing and mortar.

g. **Steel Lintel Repair:** The long-term solution to the jacking of masonry over a window or door by a seriously rusting lintel is to remove the rusting lintel in its entirety. A new lintel should be installed, properly flashed, and the removed brick should be used to reconstruct the masonry facing over the window or door to match its previous appearance.

h. **Extent of Replacement:** When replacement is necessary, replace only (1) individual bricks and small areas of brick masonry that are deteriorated through cracking or spalling or (2) areas that are structurally unsound as determined by a structural engineer. Do not replace wall areas that are not unsound.

i. **Painted Coatings**: In general, do not paint brick walls that have never been painted. However, a painted coating may be an appropriate treatment where excessive spalling of brick is occurring due to the poor quality of the brick. Use a breathable masonry paint that will not trap moisture within the wall.

j. **Efflorescence**: When efflorescence appears on an old wall, the source of the moisture should be identified and repaired. Remaining deposits can then be removed with a natural bristle brush or with a solution that neutralizes the salt.

k. **Sealant**: Waterproof building sealants should only be applied to joints in horizontal wash surfaces such as at sills, watertables, projecting cornices, and steps. These joints are particularly prone to water penetration. Do not use sealant in joints on vertical wall surfaces because it will trap moisture within the wall and lead to deterioration.

Pointing and Mortar

Mortar mix is extremely important to the functional needs and aesthetics of a brick or stone wall. Pointing mortar for an historic building should match the historic mortar in strength, color, texture, and finish.

In historic masonry walls, the mortar joints were soft, absorbing the seasonal thermal expansion and contraction of the wall and allowing moisture within the wall to escape through the joints.

Today's commercial mortars are too hard – harder than historic brick. When used in historic brick walls, today's hard mortars (1) force the softer historic brick to absorb the thermal movement causing cracking of the brick wall and (2) force moisture to escape from the wall through the brick causing cracking and spalling of brick units.

a. **Repointing:** Repoint open or unsound mortar joints. Match historic mortar joints in color, texture, strength, joint size, and tooling. Work to achieve visual continuity between surviving historic material and new patches. Do not repoint sound historic mortar joints.

b. **Unsound Mortar:** Remove unsound mortar to a depth of 2 1/2 times the width of the joint or to sound mortar, whichever is greater. Remove unsound mortar joints with hand tools that are narrower than the mortar joint. Do not use power tools, because they can scar adjacent masonry.

c. **Saw Cut:** Under special circumstances and careful supervision, a thin saw cut may be run down the center of a horizontal joint with the remainder being removed by hand. However, masonry saws should never be used on vertical joints.

d. **Mortar Strength:** Match repointing mortar to the strength of the existing mortar of the historic building.

The repointing below the window in this historic wall does not match the color, texture, or tooling of the historic mortar to the right and left.

Detail of repointed joints showing modern grey mortar to the right that does not match the rich brown color and texture of the historic sand mortar to the left.

Repair of a structural crack caused by building settlement between the head of the window below and the sill of the window above.

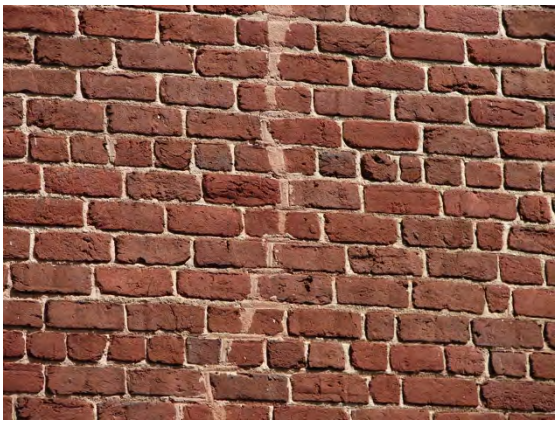
e. **Mortar Analysis:** If possible, have a mortar analysis undertaken of a sample of the historic mortar to determine its composition and strength. Such an analysis can be performed by a building conservator for a modest cost. Use the mortar analysis to prepare a custom specification for the new mortar matching the materials and mix proportions of the historic mortar.

f. **Commercial Option:** If matching the historic mortar mix is not feasible, a commercially available "Class N" cement mortar may be used. Type N mortar mix is an industry standard general purpose mortar mix preferred for soft brick or stone masonry. A type N mix is composed of 1-part Portland cement, 1-part lime, and 6-parts sand and has a medium compressive strength.

g. **Color and Texture:** Pointing mortar for a historic building should match the historic mortar in color and texture. Sand should be used as the coloring agent wherever possible, as opposed to commercially available tints. Do not use standard grey colored mortars.

h. **Test Panels:** Matching the color, texture, and appearance of the historic mortar should be achieved through trial and error using test panels. Multiple test panels are usually needed to achieve the right color and texture match.

i. **Mask Grouting:** Mask grouting is the practice of applying a skim topcoat of mortar over existing joints and is essentially a cosmetic fix. Not only does it hide any underlying existing mortar problems, it alters the appearance of the entire building. This practice is inappropriate and should be avoided.



The crack repairs in the two photos above use mortar of the wrong color and texture, not matching adjacent historic mortar. Additionally, cracked brick units were not removed and replaced but their cracks were repointed. Though not preferred, this treatment may be acceptable when matching bricks cannot be obtained, such as in the extremely old wall at top; but in general is inappropriate.

STONE MASONRY

Stone is one of the strongest and most enduring building materials. Despite its desirable qualities, the expense of quarrying, shipping, and building with stone has often limited its use in construction. Stone was not commonly used for exterior walls in eighteenth and nineteenth century vernacular buildings in Massachusetts, which were usually of wood frame construction. However, field stone was used for basement and foundation walls.

Stone was sometimes a featured material in landmark buildings that were prominent in public life or private industry, such as banks, libraries, government buildings, and mills. Stone was often used as a trim material for lintels, sills, watertables, and steps in conjunction with brick masonry walls.

By the late nineteenth century, stone became more widely available due to the ease of shipment by railroad. It became a desirable material in emerging architectural styles for both commercial and affluent residential construction. Common types of featured building stone included limestone, sandstone, marble, and granite.

Stone was not a common material for residences within Wellesley's Cottage Street Historic District. It appears more frequently in later, affluent early twentieth century historic neighborhoods in the Town. Along Cottage Street, stone is used for foundation walls and exterior steps. Some of these applications, however, appear to be later decorative changes, not original to the buildings. In several cases, stone was applied as a veneer treatment over underlying foundation walls that may be of earlier masonry or of later concrete.

Condition and Causes of Stone Masonry Deterioration

The issues and recommended treatments for stone are similar to those that are recommended above for brick masonry. Both stone and brick are resilient when properly maintained, but can quickly succumb to water damage when mortar joints deteriorate.

Joints, however, are not the only locations where water can enter a masonry wall. Although stone is often thought to be impermeable, many types of stone are actually porous and can absorb water through their face. Like brick, stone must be allowed to breathe or water vapor can become trapped inside the wall, causing weathering and deterioration of the body of the stone and causing cracking when it freezes.

Stone foundation of a wood framed vernacular building within the Cottage Street Historic District.

Open Joints – When mortar joints fail in a stone wall, they allow water to flow into the wall, creating a chain of events that can weaken the entire wall. Variations in pressure caused by water and ice can cause individual stones to move. Cracking along the mortar joints is one indication that the stones are in motion.

Cracks – Cracks in masonry should be properly diagnosed before undertaking any maintenance or repair work. Cracks caused by structural stresses should be investigated by a structural engineer to determine their cause and appropriate remedial repairs. Any underlying structural problems must be addressed before performing repairs.

Not all cracks in stone masonry require repair. Cracks may simply be a part of the natural weathering process for some stone masonry. Small, hairline cracks on vertical surfaces of stone masonry should not be repaired unless they are deep enough to allow water to infiltrate into the masonry wall. However, such cracking on horizontal wash surfaces should be patched with a knife-grade patching compound

Delamination – Surface deterioration and delamination through the body of stones are problems caused by water infiltration into masonry. Saturation of porous limestone or sandstone caused by water infiltration from above or from the ground can result in surface deterioration in which layers of stone flake away.

Sodium, calcium, and magnesium chloride based de-icing salts can damage foundation masonry as well. The salts are absorbed into the masonry with the water. As the masonry dries, the salt residue forms deep within or on the surface of the masonry causing internal stresses and damage.

Washes and Watertables – Stone is often used for wash surfaces in masonry walls, such as sills and watertables. A watertable is a sloping horizontal course of stone where a transition from thicker lower walls to thinner upper walls is made. Many watertables in brick masonry walls are design features and made of stone.

Masonry joints on the wash surfaces of sills and watertables are exposed to weathering, and the mortar often deteriorates leaving open joints. Water enters the wall though the open joints causing movement and cracking when it freezes.

Examples of stone foundation walls of historic buildings within the historic district.

Stone Masonry Treatment and Repair

In general, for treatment of stone masonry, follow the recommendations outlined above for brick treatment and repair.

a. **Resetting and Replacement:** Minimize the removal and replacement of historic stone masonry. Only remove or rebuild substantial portions of stone masonry walls when such rebuilding is crucial to maintaining a building's structural integrity. When resetting or replacing a stone wall, replicate the existing pattern of stone. Rubble stone is laid randomly, and ashlar (rectangular) stone is laid in neat rows.

b. **Repointing:** Cracks and deteriorated mortar in joints should be filled with new mortar that matches the color and texture of existing historic mortar joints. The width and profile of existing mortar joints should be replicated as closely as possible. Work to achieve visual continuity between surviving historic material and new mortar.

c. **Unsound Mortar:** Remove unsound mortar to a depth of 2 1/2 times the width of the joint or to sound mortar, whichever is greater. Use hand tools that are narrower than the mortar joint. Avoid the use of power tools, which can scar adjacent stones. Repoint only those joints that are no longer sound; do not remove sound mortar from existing joints.

d. **Patching:** Where appropriate, patch small pieces of lost masonry with cementitious patches. Commercially available patching compounds can be either Portland cement-based or natural hydraulic lime-based. It is important to choose a patching compound that is compatible with the compressive and flexural strengths and permeability characteristics of the masonry to be repaired. The use of overly hard material can result in further damage to the stone.

This chimney within the historic district appears to have a custom stone cap with a terra cotta flue cap.

A rubble stone foundation wall at a house within the district.

Granite stone exterior steps have been installed on several homes within the historic district. They also appear to be later additions, but they are appropriate to the character of the district.

e. **Dutchman:** Damaged areas of stone that are too large to patch may be repaired by installation of a dutchman. The deteriorated portion of the stone is cut away and a new piece of stone or dutchman is installed matching the existing stone. Dutchman repair is a much more durable repair than a cementitious patch repair and should last as long as the masonry itself. Dutchman repairs require skill to install correctly and should only be undertaken by experienced masons.

f. **Limited Repairs:** Fine masonry details exposed to the weather at some locations have experienced some chipping and spalling of their corners and edges. While visually detracting, such conditions may not threaten surrounding masonry. It may be advisable to leave such details as is. Repairs may not hold up to the severe conditions that caused the chipping in the first place.

g. **Consolidation:** Consolidation is a common remedy for surface disintegration in silicate-based masonry such as sandstone. Consolidation material is penetrated into the stone to strengthen cohesion between grains at a microscopic level. Consolidation should only be considered in situations where the masonry is friable (prone to crumbling) and exhibits surface disintegration and should only be undertaken by qualified professionals.

h. **Sealant:** Sealant should be installed in the horizontal wash surfaces of stone masonry such as sills, watertables, parapets, and steps. Sealant should never be installed on vertical wall surfaces, as it will trap water within the masonry wall, forcing the water back into the masonry units.

i. **Coatings:** Do not apply waterproof coatings, paint, or stucco as a substitute for repointing and general maintenance. Such coatings will trap moisture within the wall and cause deterioration.

Stone is used most prominently in foundation walls within the historic district. In general, the walls are in good condition and are well maintained. The walls are mostly roughly coursed field stone, and some may not be original to the buildings.

The bricks in this chimney show their age – some are chipped and slightly spalled. They need not be repaired or replaced, however, if they do not threaten the masonry as a whole.

STUCCO

Stucco is a form of mortar used to give walls a smooth, finished appearance and protect them from deterioration caused by exposure. Stucco was traditionally applied in two or three coats directly to the underlying substrate, usually masonry. Buildings that have historically been covered with stucco should remain so. The underlying masonry may have been of inferior quality and was never meant to be exposed to the elements. In the twentieth century, stucco began to be installed over metal lath nailed to the substrate for better adherence.

Stucco should not be installed on buildings that were never historically stuccoed and should never be used as a substitute for maintenance of the masonry substrate. Masking problems with a surface coating solves nothing. In some rare cases, however, stucco may be an appropriate protective surface treatment for masonry buildings where the building's underlying brick or stone material is of poor quality and is severely deteriorating.

Stucco is meant to be a sacrificial protective coating and, therefore, requires cyclical maintenance and reapplication. Stucco is composed of a binder of sand and often a reinforcing fiber. It is applied in two to three coats. The first coat is called the brown coat, the second is the scratch coat, and the final coat is the finish coat. Stucco was traditionally composed of lime-based binder materials. Modern stuccoes are usually composed of Portland-cement and hydrated lime.

Condition and Causes of Stucco Deterioration

Moisture and water infiltration is the main cause of stucco deterioration and failure. Problems with roof drainage systems can accelerate stucco deterioration. Excessive water runoff over a stucco surface will lead to disintegration of the stucco. Water splashing up from the foundation, or moisture penetration through rising damp, can cause the stucco to lose its bond to the substrate.

Wet stucco is vulnerable to freeze/thaw deterioration in cold weather. Water moving through the stucco leaches out carbonate material which builds up in areas where the water evaporates on the surface. Salts from the ground may accelerate stucco deterioration through salt crystallization.

This building at the south end of Cottage Street has the most prominent use of stucco within the historic district.

Cracking – Cracking in stucco can be caused by several mechanisms. Shrinkage cracks can form if the stucco has dried too quickly during installation. Building settlement can cause cracking in the stucco finish. Metal elements, such as metal lath or metal corner beads, expand at different rates than the stucco, causing cracking.

Stucco On Lath – Later stucco applications that have been applied over metal lath is particularly vulnerable over time. Often, the metal lath or lath nails have been inadequately sized and are not strong enough to hold the applied stucco.

The stucco on metal lath may have no expansion joints, which are required to absorb the movement of the lath during thermal expansion. Water infiltration into the stucco and metal lath system will cause the lath to corrode and fail.

Stucco Treatment and Repair

a. **Preservation:** Retain, repair, and maintain stucco surfaces that are historically significant to an existing building.

b. **Extent of Repair:** Where existing stucco is deteriorated, it should be repaired to match adjacent surfaces. Remove only the deteriorated stucco.

c. **Stucco Hardness:** It is important to repair existing stucco with similar materials. Dissimilar materials will have problems bonding to the existing material. Portland cement-based stucco mixes are too hard and dense for soft, permeable historical masonry.

d. **Compatible Stucco:** Natural hydraulic lime-based stucco mixes will require more care during installation, but provide a flexible breathable coating that is compatible with historical masonry.

e. **Test Panel:** Before applying the replacement material to a large wall area, use a test panel to determine if the color and finish are appropriate. Once a proper recipe has been determined, it should be recorded for any future repairs to the building.

f. **Match Existing:** When repairing stucco, make sure that areas of patched stucco match the strength, composition, color, and texture of the original to the greatest degree possible.

Details of stucco walls.

g. **Tinting:** Stucco patch recipes should be tinted to match the weathered appearance of the existing material.

h. **Stucco Repair:** In stucco repair, remove all of the loose or severely cracked stucco to expose the masonry substrate. The area to be patched should be cleaned of all debris. Masonry joints may need to be raked out 5/8-1 inch to ensure good bond between the substrate and the new stucco. Stucco should be applied directly to masonry whenever possible.

i. **Application:** In applying stucco, begin from the top of the wall. Application should be smooth. Surplus stucco should be washed off with a light stream of water. Allow the stucco to set for 30 to 60 minutes. Using a fine spray of water, etch the surface to match the texture of the earlier stucco.

j. **Thickness:** Carry out stucco repairs so that the surface thickness of the repaired stucco matches that of adjacent historic stucco.

k. **Crack Repair:** Cracks in stucco should be repaired with cementitious materials similar to those found in the original mix. Hairline cracks can be filled with a slurry made of the finish coat mix. Larger cracks must first be cut to provide a groove or "key" for receiving the new work. A groove can be cut by using a knife to open up an existing crack. The edges should then be undercut with a hammer and chisel. After applying stucco, it should be kept moist for three to four days to allow curing.

l. **Sealant:** Sealant should never be used to repair cracks in stucco.

Stucco has been used as a protective coating over vulnerable masonry foundation walls.

METALS

Metals were in limited use as original historic materials in Wellesley's historic neighborhoods and are found on the exterior of buildings today most frequently in hardware, flashing, roofing, railings, and decorative features. Where original historic doors, windows, and shutters are still present, their historic metal hardware is usually present as well. Metal was often used as a roofing material for shallow pitched roofs, such as for entrance porches, but most original metal roofing has been replaced over time due to weathering.

The metals most commonly used in architecture are alloys containing lead, tin, zinc, copper, nickel, aluminum, and iron. Iron and its alloys, including steel, are particularly prevalent in buildings because of the increase in quality and lowering of production costs brought about by technological breakthroughs in manufacturing in the late nineteenth century. Metal elements are inherently durable if properly maintained.

Condition and Causes of Metal Deterioration

Corrosion is the major cause of deterioration of architectural metalwork and is exacerbated by the presence of moisture. Corrosion can be caused by structural stress, electrochemical reaction with dissimilar metals, or corrosive environments, such as salt-laden water. It is accelerated wherever water collects against metal elements, such as at the base of metal posts.

Metals undergoing corrosion are slowly reverting to their natural ores, such as iron oxide. This process involves significant expansion of the corroding metal, which can cause extensive cracking when the metal is embedded in masonry or concrete. (See the discussion of steel lintels under Brick Masonry, above.)

Architectural metals can also deteriorate from mechanical failures, such as overloading or fatigue. For example, operable metal hardware installed with doors and windows can deteriorate over time due to metal fatigue. The constant use of metal handrails can result in sections working loose at their anchors, causing damage to the wood or masonry to which they are connected.

As also discussed in Chapter 7, remnant historic metal features such as this pintle form a late nineteenth century shutter hinge should be preserved whenever possible.

Metal Treatment and Repair

The architectural metalwork of historic buildings can be maintained through proper surface preparation and application of protective coatings where appropriate. Some metals must be painted for protection while others should be left unpainted

a. **Iron and Steel:** Cast iron, steel, and tin are the most common metals used in historic features in Wellesley's neighborhoods and should be painted to protect them from corrosion.

b. **Other Metals:** Copper, bronze, aluminum, and stainless steel should be left exposed. Historic copper and bronze are present to a limited extent. Aluminum and stainless steel are modern materials used for new, non-historic features. Modern aluminum often has a baked factory finish that should not be painted.

c. **Maintenance:** Ongoing maintenance can help prevent weathering and deterioration and the need for replacement of metal features.

d. **Paint Deterioration:** Deteriorated paint on painted metal surfaces should be removed using appropriate methods, including wire brushing for non-decorative elements exhibiting light rust, or chemical paint removal for heavier built-up paint.

e. **Removal for Repair:** Severe corrosion of historic metal features may require that entire sections or features of metalwork be removed and carefully repaired in a shop before reinstallation.

Copper is a common historic material used for roofing, gutters, and downspouts and should be retained whenever possible.

Lead was commonly used for the flashing of brick masonry chimneys and is still present within the historic district.

Most metal handrails within the historic district are of modern installation. The posts of metal handrails are susceptible to deterioration where they anchor into concrete or masonry.

f. **New Paint:** Newly cleaned metal should be immediately protected with a rust-inhibiting primer. Alkyl-based enamel paints are recommended for finishing iron alloys. Latex and other water-based paints are not recommended.

g. **Replacement:** Replacement of historical metal elements should only be undertaken as a last resort, when the element is deteriorated beyond repair. Most original metal elements in historic buildings are important character defining features, and replacement in kind could be expensive.

h. **New Metal Features:** Where new or replacement metal features are required, their design should be sympathetic to the historic character of the building. Most modern stock handrails, for instance, are not appropriate for historic buildings. Sympathetic modern profiles should be found. Usually, simplicity is preferred over new metal features that are highly decorative, especially for vernacular residential buildings.

Decorative metal features such as this light and house numbers are common within the district but are generally modern installations.

CHAPTER 6 – TREATMENT OF HISTORIC BUILDING FEATURES

Residences within Wellesley's historic districts were constructed over about a century and a half between the late eighteenth to early twentieth century and include a variety of architectural styles prevalent over that time. Individual building features associated with those styles are essential to the character and significance of each building, and the central theme of these design guidelines is to encourage their preservation and maintenance. In many buildings, new features have been added over time that themselves have become historically significant to the building, documenting its evolution during different periods of the historic district's development.

This chapter addresses the treatment of historic building features, including roof features, wood siding and detailing, entrances and doorways, windows, and porches—the key character defining features of a building's exterior. Preservation and appropriate maintenance of historic features and their authentic building fabric are always strongly encouraged as a baseline treatment. The first step is understanding the feature's relationship to the building in terms of time period and historical significance, as well as the design characteristics that are significant to the feature itself.

Repair of significant features is always preferred over replacement—significant features should rarely, if ever, be removed. Replacement is appropriate only when existing features are deteriorated beyond the possibility of repair. Existing features can be modified and new features can be added when absolutely necessary to accommodate contemporary needs, but in general they should be minimal or avoided. Significant changes may be limited to the side or rear facades of buildings within the district. The following guidelines address the treatment of building features present within the Town's historic districts.

ROOFS AND RELATED FEATURES

The roof is among the most critical features of any building. Roofs are not only important character defining features, their function and physical integrity are critical to a building's long term care and preservation. Visually, roof materials and color are important to consider, though they are not subject to Historic District Commission review.

Roofs are composed of a variety of building elements that together function as a system. Roof elements include their various structural elements (framing, sheathing, roofing materials, and flashing) as well as the drainage system, including drains, gutters, scuppers, downspouts, and splashblocks or piping that helps convey water away from the building. They serve a critical functional purpose while also being important design features. Providing a weather-tight roof and properly functioning drainage system should be addressed before any other concern.

Steeply pitched gable roofs are the most common roof type within the historic district. Historically, most roofs were likely covered with wood shingles, though slate, metal, and terra cotta may have been present as well. Today, most roofs have been covered with contemporary asphalt shingles and appear to be in good condition. A few slate roofs remain, and at least one building retains a built-in wood gutter. Many existing roofs have design features such as dormers of various configurations as well as complicated ridge, valley, and flashing arrangements. A few buildings have complex turrets and projecting bays. Chimneys are present on most buildings, though they tend to be simple and utilitarian.

It is of primary importance that roofing systems be properly maintained. If not maintained, damage that occurs to concealed roof and wall structures due to water penetration may go unnoticed for years. As a result, wood members will rot (especially at bearing points), metal elements will rust and expand, and masonry will deteriorate and crack. By the time these conditions become apparent, the required repairs will be much more costly than proper maintenance would have been. Regular and ongoing roof maintenance is critical to the preservation of historic buildings.

Roof Design and Configuration

a. **Preservation:** Preserve roofs and roof elements that are significant to a building's historic character, including form, shape, pitch, materials, and decorative features such as gables, dormers, turrets, and chimneys.

b. **Gable and Eave Details:** Preserve historic detailing at gable ends, cornices, barge boards, and eaves. Leave historically-exposed rafter ends and eaves open and uncovered.

c. **Removals:** Only remove roof elements that are not historic.

d. **Deteriorated Features:** Deteriorated roof features and detailing that require replacement should be replaced with in-kind features that match the material,

Creative roof forms give expression to the architectural character of a building.

form, shape, function, color, and size of the original.

e. **Roof-top Additions;** Roof-top additions other than appropriately scaled dormers, discussed below, are not appropriate to existing historic buildings within the district.

Roof Maintenance and Repair

a. **Annual Inspection:** Inspect roofs on an annual basis to ensure all roof surfaces, flashing, gutters, and downspouts are watertight and draining properly. Clean gutters, downspouts, and areas with flashing every spring and fall at minimum to remove leaves and debris. Check that flashing is intact at dormers, chimneys, parapets, and projections as well as along valleys created by intersecting slopes.

b. **Timely Repair:** Repair leaking roofs as soon as possible. If repairs are not made quickly, adjacent building materials will rapidly deteriorate.

c. **Temporary Coverings:** When faced with a leaking roof, protect materials with temporary coverings, such as tarps or roll roofing, until permanent repairs can be made. Temporary coverings will help slow deterioration of surrounding building materials.

d. **Selective Repair:** Whenever possible, selectively repair deteriorated sections of historic roofing material rather than completely replacing the roof.

Asphalt shingles are in use throughout the historic district and are easily adaptable to complex roof intersections such as these. This roof has no gutters, a common historic condition.

Fine detailing of a roof edge – half-round copper gutter, downspout matching the color of the wood eave and walls, and scupper box.

The roofs on this home have built-in wood gutters that are lined with metal, important historic features that have been preserved and maintained.

Roofing Replacement

a. **Historic Roofing:** Whenever possible, replace historic roofing materials such as slate, metal, or terra cotta with new materials that match the existing.

b. **Slate Roofs:** Slate roofs are present on several buildings within the historic district and should be preserved whenever possible. Slate roofs were installed historically for both their visual appeal and longevity. Slates vary in color, shape, pattern, and detailing, and should always be replaced in-kind, from the same quarry or geologic formation if possible. Generally, replacement of individual slates should always be undertaken before replacement of the entire roof.

c. **Substitute Materials:** When in-kind replacement of historic roofing materials is not feasible, install substitute materials that are visually, physically, and chemically compatible with the historic roof materials. New materials should match historic materials in color, texture, size, shape, profile, and general appearance.

d. **Synthetic Substitutes:** There are materials being developed that closely replicate historic materials, including slate and wood. The use of these materials should be reviewed on a case-by-case basis.

e. **Slate Substitutes:** When historic slate roofing is being replaced and the use of new slate is not possible, the use of quality synthetic slate is acceptable provided the visual characteristics of the replacement are similar to the historic roof.

f. **Metal Replacement:** Replacement metal roofing should match the original metal roof in layout, configuration, and appearance of the seams and trim.

This slate roof has a copper ridge cap. Copper in the water washing down from the cap has killed lichen that is seen growing on the slates in the lower portion of the image. The dark grey slates are replacement pieces – a better color match might have been possible.

At least one wood shingle roof remains in the historic district. It has a metal ridge cap/vent, not historically accurate but acceptable for function and longevity.

g. **Metal Replacement of Shingle Roofs:** Replacement of conventional shingle roofs with new metal roofing is acceptable provided that the new metal roofing approximates the appearance of historic standing seam metal roofs and that roof colors are restrained and compatible with the character of the district.

h. **Asphalt Shingles:** Contemporary asphalt shingles are an appropriate roofing material for pitched roofs throughout the historic district. In general, shingle colors should be dark grey, brown, or black approximating the color of historic wood or slate roofing. Excessively light colored shingles are not recommended.

i. **Flat Roofs:** Flat or gently sloping roofs not visible from the ground may be replaced with appropriate contemporary roofing systems such as EPDM/rubber membrane roofing.

j. **Removals and Substrates:** When replacing roofing, remove all existing roofing material and inspect and repair roofing substrates, such as wood and waterproof underlayment. New roofing should never be applied over old roofing.

k. **Protection:** During roof replacement, protect adjacent historic features such as dormers, cornices, eaves, trim, windows, and chimneys from damage during construction

Roof Reconstruction

a. **Reconstruction:** When historic roof features are to be replaced or when missing features are to be reconstructed, use physical and/or historical documentation to accurately ascertain their materials, form, and detailing. When sufficient evidence is not available, design new roofs and roof features to be compatible with the architectural character of the building.

b. **Documentation:** Document any existing historic roof feature that is to be removed, replaced, or reconstructed with photographs prior to the removal of any historic fabric.

Many historic roofs have complex conditions that must be carefully maintained to prevent deterioration. Routine maintenance can prevent the need for costly repairs and replacement, which should be undertaken in-kind.

Dormers

a. **New Dormers:** Gable and shed roofed dormers of various types are common throughout the historic district. Some are original to the building design, but many appear to have been added over time to make attic space usable. The addition of new dormers to existing roofs is acceptable.

b. **Primary Facades:** Dormers should not be installed on primary facades if they were not historically present on the facade.

c. **Secondary Facades:** New dormers may be constructed on secondary or rear facades provided they are appropriately sized and located and do not dramatically alter the character of the roof and the building.

d. **Dormer Design:** New dormers should be appropriately scaled and located to maintain the dominant roof form. Locate dormers away from top, side, and eave lines so that the overall roof form is visually apparent. Use matching or complementary materials, forms, colors, and detailing to those of other portions of the building. Do not damage or visually obscure historic building fabric.

e. **Windows:** Windows in new dormers should complement the character of historic windows in the building, though they need not precisely replicate them.

f. **Maintenance:** Maintain dormers in good condition for appearance and to prevent water infiltration. Pay special attention to flashing locations where the dormer meets the roof.

g. **Synthetic Materials:** Synthetic siding and trim materials such as cement fiber board and polymers may be used for new or existing dormers that are difficult to access, inspect, and maintain. Vinyl and aluminum siding are not permitted. See the section on Wood Siding, Details, and Trim, below, for appropriate use.

Historic dormer characteristic of the building's period and architectural style.

Half dormer flush with the wall and penetrating through the roof in a one-and one-half story cottage.

These dormers appear to have been added to the building to make the attic level habitable.

Gutters and Downspouts

a. **Preserve and Maintain:** Preserve and maintain historic gutters, downspouts, and related features on buildings where they are present and are character defining features.

b. **Replacement:** Where historic gutters or downspouts are missing or must be replaced, the new gutters and downspouts should match the historic ones in type, material, profile, color, and finish.

c. **Missing Downspouts:** Replace missing or damaged downspouts as quickly as possible to prevent damage to walls, trim, foundations, and interiors.

d. **Historic Detailing:** Preserve and retain historic building details at eaves, walls, and other locations when installing new or replacement gutters. Do not remove, alter, damage, or obscure historic detailing.

e. **Tree Pruning:** Trim overhanging tree branches to prevent them from touching roofs and gutters.

f. **New Gutters:** New gutters and downspouts may be installed on historic buildings where they have not existed before when the gutters and downspouts are needed to prevent damage to other historic building features such as wood or masonry walls and trim.

g. **Design:** The style and material of new gutters and downspouts should be considerate of and appropriate to the historic roof characteristics, including roof edge, cornice, and trim. Half-round gutters and round downspouts are generally preferred. Contemporary K-style gutters may be acceptable in some locations. Size gutters to accommodate the volume of water expected to flow from the roof as well as to be visually appropriate to their location.

h. **Built-in Gutters:** Preserve built-in gutters whenever possible. Where built-in gutters are poorly designed such that they are causing damage to the eave, cornice, or wall, replacement may be considered.

i. **Replacing Built-in Gutters:** Where built-in gutters are to be replaced by hanging gutters, the built-in gutters should be roofed over and the hanging gutters attached to the fascia board at the eaves of the roof.

j. **Materials:** Various metals are appropriate and available for gutters and downspouts, including copper, terne, aluminum, and galvanized. Metal painted or baked finishes should complement the color of the historic building. Use of vinyl gutters and downspouts is not acceptable.

k. **Attachment:** Install a sufficient number of hangers to attach the gutters and downspouts securely to the roof and wall.

l. **Ground Level:** Direct downspouts to convey water away from the building foundation at ground level. Grade soil to slope away from the building and use splash blocks, extenders, underground piping, or other means as necessary.

Contemporary K-style (molding shaped) gutters have been installed inside of decorative barge boards at the gable ends.

Skylights

a. **Skylight Location:** If permitted, skylights may be installed on sloped roof planes and should preferably be located facing the rear of the building. Skylights may be installed on side-facing roof planes provided they are limited in size and number and do not adversely affect the character and appearance of the building. Skylights should not be installed on primary facades facing the street.

b. **Skylight Type:** Skylights should be flat, low, and flush with the roof plane (not "domed" type). Skylight frames should be similar in color to that of the roofing material.

This flat skylight is an appropriate type, but was installed on a primary façade. Its color could have been darker, blending better with the color of adjacent shingles.

Mechanical Elements

a. **Equipment:** Modern rooftop elements, such as mechanical units, vents, ducts, solar panels, antennae, and satellite dishes, when necessary, should be located at the rear of the building such that they are not visible from the street.

b. **Bathroom Vents:** Bathroom vents may be installed where needed on any roof surface but should be of material and color to complement the color of the historic roofing material.

An internet/television dish was installed on the back side of this building's ridgeline so that it is minimally visible from the street.

Chimneys

a. **Inspection:** Chimneys should be inspected annually. Ideally, inspections should be conducted from the roof during dry weather. Preliminary inspections can take place from the ground.

b. **Condition:** Evidence of movement, leaning, or cracking should be addressed immediately. These issues can lead to other material and architectural problems. If a chimney appears unstable, a structural engineer should be consulted to determine an appropriate treatment and course of action.

c. **Chimney Repair:** Chimney repairs and replacement should always be undertaken by a professional experienced in historic masonry. Retain masonry coursing (patterns in rows of laid brick), ornamental brickwork, corbelling (projecting courses of brick) and any decorative features during chimney repair. See the Masonry section of these guidelines.

d. **Missing Materials:** Missing chimney materials should be replaced and matched in-kind.

e. **Stucco:** Stucco veneers can show cracks and holes over time. These should be patched immediately as they can quickly lead to larger cracks where moisture can accumulate.

f. **Reconstruction:** Where severe structural issues are present causing a safety concern or building issue, the chimney should be documented, dismantled and reconstructed to match the original. Existing materials should be salvaged when possible for use in the reconstruction.

g. **Cap Unused Chimneys:** Cap unused historic chimneys with an appropriate material, such as flagstone or thin concrete slab, to keep water out. The capping material should not be visible from the ground. Contemporary metal cap flashing is not appropriate for historic buildings.

h. **Decorative Chimney Caps:** Where chimney caps are a visible design detail, replace the historic materials to match existing.

Common utilitarian chimney with original brick, copper flashing, terra cotta flue liners, and cement wash to shed water.

A variety of different types of metal caps have been installed on chimneys within the district, not historic but acceptable for fire safety. This chimney has been rebuilt with brick reasonably similar to the appearance of historic brick.

The open joints in this chimney may allow water to penetrate and deteriorate the brickwork.

WOOD SIDING, DETAILS, AND TRIM

Wood is the predominant material used in the construction and exterior detailing of residences within the historic district. Other materials are present in mostly supporting roles. Wood siding is used as the exterior cladding for most historic district residences, with traditional horizontal wood clapboard and wood shingles being the most prevalent siding types. In addition to siding, wood is commonly used for the various trim, eaves, bargeboards, gable elements, moldings, columns, and other features associated with building exteriors. The first goal with respect to the treatment of historic wood siding, details, and trim is the preservation of authentic historic building fabric.

The role of wood siding is to protect the underlying structural framing and interior materials of a building from weather, primarily by shedding rain and wind-blown water, but also by withstanding the effects of intense sunlight over time. Additionally, siding must be permeable to water vapor, allowing water vapor to pass from the interior of the building to the exterior. Any siding material that fails to allow the passage of water vapor will be susceptible to condensation within the wall with resulting deterioration and rot.

Historically, wood siding was usually installed over wood board sheathing. By the early twentieth century, the sheathing was usually covered with building paper that was resistant to water penetrating from the exterior but permeable to the passage of water vapor from the interior. Today, this function is performed by materials such as Tyvek. The wood siding serves as the first line of defense against rain water while the building paper is the final line of defense. The overlapping joints of wood siding must never be caulked or have sealant installed, which some have done in the effort to protect from cold winter winds. The open joints allow the passage of the interior water vapor. If they are sealed, the water will pass through the wood causing the delamination of its painted coating.

Wood siding and detailing should be protected from deterioration by rain water with properly applied paint. When thus protected and properly maintained, wood siding is durable, serviceable, and can last indefinitely.

Historic Wood Siding and Trim

a. **Preservation:** Retain, repair, and maintain authentic wood siding, trim, and detailing that is significant to the historic character of a building.

b. **Repair:** When wood siding or trim has deterioration, it is preferable to repair the element in place by removal of only the deteriorated portion and patching with new wood to match or an epoxy consolidant. Historic materials should be retained to the greatest extent possible.

c. **Replacement:** When wood siding or trim is deteriorated beyond repair, replace them in-kind with wood of the same type, width, profile, shape, and appearance, matching original detailing. Deterioration

Wood is the predominant material for the siding, trim, and detailing of most buildings within the historic district.

is evident when the surface of the wood is soft, rotted, and no longer stable.

d. **Substitute Materials:** If substitute materials are necessary and permitted, they should convey the same visual appearance of the original feature, including size, shape and texture.

e. **Wood Species:** If limited replacement of wood siding and detailing is required, the new wood members should match the species of existing wood if possible, both to give the wall a consistent texture and appearance and because different species of wood have different rates of expansion.

f. **Flashing Repairs:** Repair flashing, gutters and cracks in siding to reduce deterioration of historic wood siding and other elements as a result of water penetration.

g. **Missing Features:** If a wood feature is missing, replace it with a new feature based on accurate documentation of the original or a new design compatible in style, scale, size, material, and texture with the historic building and district.

h. **Authenticity:** Do not introduce new wood features or details that create a false historical appearance.

i. **Painted Coatings:** Protect historic exterior woodwork from weathering due to rain or sun with a properly applied painted coating. Maintain painted wood surfaces in good condition. Remove peeling paint and repaint when necessary.

j. **Preparation:** Prepare surfaces to be painted by scraping and lightly sanding. If needed, clean with TSP and a light water wash.

k. **Paint Removal:** Removal of older layers of intact paint is not recommended but if undertaken, carefully remove older paint by thermal means or a mild chemical stripper.

Wood siding conveys the texture and feel of the building's exterior and is complemented by fine wood detailing.

Most wood siding within the historic district is horizontal clapboard siding, but wood shingles are present as well and often used in interesting ways.

l. **Power Washing:** Do not power wash exterior wood walls or detailing. Power washing causes exposed wood to absorb significant amounts of moisture. The absorbed moisture will cause paint failure, especially if it is applied while the wood is still damp. Power washing raises wood grain and drives water into the building's frame.

m. **Paint Application:** Apply paint with a brush; do not spray. Brushing results in a thicker coat with better adhesion than spraying or rolling.

n. **Natural Finishes:** Do not strip paint from existing features to bare wood for application of clear stains or natural finishes.

o. **Sealant:** Sealant should be installed at vertical joints where wood meets a dissimilar material. Do not apply sealant or caulk to the horizontal joints in wood siding.

Covering of Wood Siding

Synthetic sidings such as vinyl and aluminum, are not appropriate for use on historic buildings, especially as a covering over authentic wood elements. Over time, synthetic coverings degrade, require replacement, and are more expensive than proper maintenance of wood siding. Synthetic coverings prevent proper ventilation of the wall, causing water to condense and build up on the interior. Because they do not show deterioration, synthetic sidings mask deterioration that may be occurring to materials underneath.

a. **Preservation:** Retention and exposure of authentic wood siding and detailing is always preferred over the installation of synthetic coverings.

b. **Coverings:** Do not cover authentic wood siding, details, or other elements with new materials such as vinyl, aluminum, cement board, or stucco. Artificial stone, asphalt shingles, and vertical plywood siding are not appropriate materials for historic buildings within the district.

c. **Removal of Coverings:** When authentic siding and detailing have previously been covered with other materials, expose and restore the authentic wood elements.

Wood detailing can be susceptible to water penetration and deterioration, such as at this drip edge and trim at the base of a clapboard wall.

Painted coatings are necessary to protect wood. Peeling paint is often caused by water vapor moving from the interior to the exterior of the building.

Synthetic Materials as a Replacement for Wood Elements

a. **Preservation:** Synthetic materials such as cement board, polymers , or fly ash composites should not be used as replacement materials for authentic wood siding or details except in extraordinary circumstances as outlined below.

b. **Complex Details:** Glass fiber reinforced concrete is an appropriate material for the replication of complex detailed elements of a historic building when the authentic elements are deteriorated or missing and must be replaced.

c. **Vulnerable Locations:** In rare and specific circumstances, the use of cement board, polymers, or fly ash composites as a replacement for deteriorated or vulnerable wood may be allowed where conditions are unusually susceptible to damage or deterioration and difficult to properly maintain.

d. **Type and Finish:** When allowed, cement board, polymers, and fly ash composites must be smooth (without false graining) and must be field painted to match adjacent wood.

Synthetic Materials for New Additions

a. **Synthetic Materials:** Synthetic materials such as cement board, polymers, or fly ash composites may be used to simulate wood siding and details in new additions to the sides and rear facades of buildings within the historic district.

b. **Type and Finish:** When allowed for new additions, cement board, polymers, and fly ash composites must be smooth (without false graining) and must be field painted to match the wood of adjacent portions of the building.

c. **Aluminum Siding:** Aluminum siding may be permitted for new construction in locations remote from the core of the historic building, such as new dormers on the side or rear of a building's roof. Factory applied color finishes should approximate and be visually compatible with the painted surfaces of the historic building.

d. **Vinyl Siding:** The use of vinyl siding is not appropriate or permitted for new additions or construction within the historic district.

The use of synthetic materials and even aluminum siding, shown here, may be permitted at particularly vulnerable and hard to maintain locations.

Wood detailing can be an important feature in conjunction with other siding materials such as stucco or brick, present at a few locations within the district.

ENTRANCES AND DOORWAYS

Entrances and doorways are among the most visible and character defining features of a historic building. Within the historic district, most principal entrances are placed facing the street and are particularly prominent due to the close proximity of buildings to the public way. Many property owners have gone to great lengths to make their entrances visually appealing.

Entrances are both functional and decorative. The principal entrances of some historic residences are seldom used except by visitors, such that their visual role with respect to the appearance of the facade is more important than their day-to-day functional role. Secondary entrances on the side or rear of the building are often more likely to be critical in the daily use by residents. Both primary and secondary entrances are important, however, and should be both visually attractive and fully functional. They often include walks, steps, small porches or sheltering hoods, doorways, sidelights, and other features. Historic entrances should never be abandoned or filled in even when used only rarely.

Doorways are comprised of frames, sills, doors, hardware, sidelights, and other features and can become worn through constant use. Over time, small problems such as sticking doors, missing fasteners, broken glass, or worn finishes, can make historic doors seem unattractive and can lead to more serious deterioration. However historic doors and doorways are usually better built than contemporary doors and should be preserved and maintained. Historic wood doors are typically built of harder and heavier wood than commonly in use today and are thicker and more substantial overall. Regular maintenance can be as simple as cleaning, care of hardware, limited paint removal, and application of protective coatings. Repair of an existing historic door is more cost effective than replacing it with a new one.

Historic Entrances

a. **Preservation:** Preserve, repair, and maintain historic entrances that are significant to the building and contribute to the building's architectural character.

b. **Entrance Components:** Preserve and retain the components of historic entrances such as walks, steps, railings, porches, hoods, posts, columns, doorways, and detailing.

c. **Primary Entrances:** Preserve and retain the primary entrances of buildings in their historic configurations. Later changes to entrances that have become significant in their own right should be retained.

d. **Secondary Entrances:** Preserve and retain secondary entrances on the side and rear of buildings to the maximum extent possible. Alterations and changes to secondary entrances to improve their appearance and/or to make them more functional should be compatible with the character of the entrance and the building, as with any addition or alteration to a historic building.

Entrances play a strong role in the visual character of historic district buildings.

e. **Closing Historic Entrances:** Do not remove, close or fill in historic entrances. Preserve historic entrances and their contributing features even when no longer in use to preserve character and significance of the facade.

f. **Featured Entrances:** If it is desirable that a secondary entrance or new entrance on the side or rear of a building be featured as the primary entrance in use, use paving and landscaping as the primary means through which its prominent role is visually communicated to pedestrians.

g. **New Entrances:** Do not create new entrances on primary facades. If needed, locate new entrances on side or rear facades in locations that will result in a minimal loss of historic materials and features. Design new entrances to be compatible in size, scale, shape, proportion, material, and massing with the existing building features.

h. **Enclosure:** Do not add enclosed vestibules to primary entrances. Enclosed vestibules may be added to secondary entrances but should be compatible with the character of the building.

Historic Doorways and Detailing

a. **Preservation:** Preserve, repair, and maintain historic doorways and doorway components such as door frames, sills, doors, hardware, sidelights, fanlights, and other features.

b. **Retain Historic Doors:** Retain authentic historic doors where they are present. Do not replace a historic door if repair and maintenance can improve its performance and preserve its physical and historical integrity.

c. **Replacement Doors:** Historic doors that are deteriorated beyond repair and non-historic doors may be replaced with new doors that are appropriate to the character and period of the building.

Simple entrance porch with a gable roof structure, decorative structural details, and brick step and deck.

Entrance porch with a flat roof, simple wood structure, railings, wood deck, and stone steps.

Wood basement areaway door.

d. **Replication:** When possible, where existing doors are to be replaced and historical evidence is available, install new doors that replicate the design, detailing, arrangement of paneling, and glazing of the historic doors.

e. **Design of New Doors:** When door replacement is undertaken and replication is not possible, the new door should be designed to be appropriate in character to the historic doorway. Custom fabricate the new door to fit the historic opening. Use a contemporary door type that reflects the architectural character of the doorway. Modern solid flush doors are inappropriate for historic buildings.

f. **Inappropriate Doors:** Where existing non-original, non-historic doors have been installed but are inappropriate to the character of the building, their replacement with new doors that are appropriate is encouraged.

g. **Doorway Configuration:** Maintain the original size, shape, and configuration of the historic doorway. Do not decrease the size of the doorway opening by partially filling it in to allow for stock door replacements or for other purposes.

h. **Doorway Alterations:** Where doorways are to be altered for functional or other purposes, such as to add a vestibule to a secondary entrance, retain as much original historic fabric and detailing as possible. Design alterations to include and respect historic elements, materials, and configurations.

i. **Missing Features:** Use historical documentation when reconstructing a missing doorway feature. If there is not sufficient evidence available, a contemporary design should be installed that is compatible with the architectural character of the building

Historic wood doorway with solid paneled door, divided sidelights, and simple wood trim and frame.

Flush wood doorway with wood side pilasters and crisp stone steps. The storm door has a large glass panel with true divided lights, a preferred treatment. The glass panel may be replaceable with screen panel in summer.

j. **Historic Hardware:** Retain and maintain historic door hardware to the maximum extent possible. Do not paint door hardware. Where portions of older hardware remain, it is preferred that they continue to be retained as remnant vestiges of the historic building.

k. **Weatherstripping:** When needed, install weatherstripping around door frames to increase energy efficiency and help protect a door's historic features. New weatherstripping should not alter the character or appearance of the doorway.

Storm and Screen Doors

a. **Storm Doors:** Storm or screen doors may be installed at historic doorways to improve thermal performance and/or allow ventilation.

b. **Wood Storm Doors:** Wood storm or screen doors custom fabricated to fit the historic door frame are preferred, especially for primary entrances. Determine whether the doorway was originally designed to accommodate storm or screen doors and work with the designed configuration.

c. **Manufactured Storm Doors:** Standard manufactured storm and screen doors are permitted but should be carefully selected and installed to minimize their visual impact.

d. **Matching Existing Doorways:** New storm and screen doors should match the size and shape of the door opening, use a narrow-frame design that enables the inner door to be seen and a finish that matches or complements the inner door.

e. **Storm Door Glass:** Storm doors should have clear glass preferably with full sized panels that allow the inner door to be visible. Dark or reflective glass on storm doors are not permitted.

Wood storm door with a large glass panel allowing the historic door behind to be visible. Both are the same color. The glass panel may be replaceable with a screen panel in summer.

Aluminum storm door – acceptable, but wood would be preferable.

New wood siding was installed to replace deteriorated siding beside and below the window sill above. The new siding matches the historic wood siding above it, an appropriate treatment.

The historic window here was removed and replaced with a new vinyl window unit. Aside from the inappropriate use of vinyl, the new window unit has a wide frame and sill that alter the visual character of the window by reducing the size of the sash and narrowing the historic proportions of the window.

The one-inch setback at the inside edge of the historic wood window frame (see arrow) was originally created to fit a wood shutter in the closed position. By the early 20th century, wood storm windows were fabricated to fit across the window in this space, replaced by screens over the lower sash in summer. Today, contemporary metal storm windows can be installed within the space created by the setback.

WINDOWS AND WINDOW TREATMENTS

Windows are among the most significant and character defining features of a building. Their preservation and appropriate treatment should be a high priority, even when changes are being made to the area of the building where they are located. The arrangement of windows on a building's facade is a key aspect of its architectural design. The manner in which individual windows are composed—their type, organization, function, operation, and internal division—are distinguishing elements of the building's architectural expression and are often specifically characteristic of the era of its construction.

The preservation of authentic historic windows should always be a priority when they are still existing. Historic windows should never be replaced unless they are deteriorated to such an extent that repair and rehabilitation are not possible. The most common type of window within the historic district is the wood doublehung window, common to residential construction from all eras.

When properly maintained, historic wood doublehung windows can last indefinitely. Historic wood windows are usually better constructed than new replacement windows, and can easily be repaired to working order. Because they are better constructed, they are more cost effective over the long run—they require less maintenance, can take more abuse, and will not have to be replaced. Historic windows can also be made as energy efficient as new windows through the installation of weatherstripping and, if desired, storm windows.

Options for window repair should always be assessed before replacement windows are considered. Repair is always preferable over replacement. If replacement is thought to be necessary, obtain the input of a professional experienced in historic preservation. Many times windows that look like they are in poor condition are in fact repairable. If replacement windows are necessary, the new windows should be carefully chosen to match the type, size, appearance, and construction of the historic windows.

Historic Windows – Preservation, Repair, Replacement

a. **Preservation:** As a high priority, retain, preserve, and maintain authentic historic windows from the date of a building's construction whenever they are still present.

b. **Later Windows:** Retain later replacement windows from the historic district's various periods of significance unless the windows negatively impact the character and use of the building.

c. **Window Elements:** Retain the elements of preserved windows that contribute to a building's architectural character. Such elements may include frames, sash, muntins, glazing, hardware, sills, lintels, and other features. Alteration or removal of such features diminishes a building's architectural integrity.

Windows are among the most visible and significant character defining features of a building.

d. **Window Deterioration:** Do not replace windows that are significant to the historical development of a building unless they are missing or deteriorated beyond repair. Peeling paint, broken glass, stuck sash, and high air infiltration are all problems that can be remedied and do not constitute valid reasons for replacement.

e. **Window Repair:** Repair historic windows retaining original materials and fabrication techniques. Replace missing or broken pieces in-kind. Epoxy consolidates may be used to strengthen and save deteriorated wood at frames and sills.

f. **Limited Replacement:** Do not replace an entire window if limited replacement of deteriorated parts is possible. Many elements that are particularly susceptible to weathering, such as muntins, can be replaced without replacing the whole window. Use surviving prototypes to reconstruct missing window elements. Replacement elements should be visually, chemically, and physically compatible with the remaining portions of the window.

g. **Window Hardware:** Window hardware and operating mechanisms should be retained but are often in need of repair. Elements such as the sash locks, cords, and weights of historic wood doublehung windows can be easily repaired and, if necessary, replaced in-kind.

h. **Weatherstripping:** Apply weatherstripping to existing historic windows if it is needed to reduce air infiltration. Installation of weather-stripping between the window frame and operable sash and along the meeting rails of top and bottom sash can dramatically increase energy efficiency.

i. **Insulating Film:** Do not apply reflective or insulating film to window glass. Blinds or insulating curtains may be added to the interior for privacy and increased thermal performance.

The preservation of authentic historic building fabric is a priority within the historic district. Window sash, frames, sills, and detailing are the focus of preservation efforts.

Some buildings within the historic district appear to retain authentic historic windows and detailing dating to the period of their construction.

j. **Window Openings:** Avoid enlarging, reducing, or filling in historic window openings. Do not close or reduce the size of historic window openings by removing windows and filling in openings in whole or in part with new construction.

Storm Windows

a. **Storm Window Types:** Storm windows are not subject to review under the Historic District Bylaw, but it may be noted that both exterior and interior storm windows are appropriate and acceptable for installation on historic buildings should they be desired to increase thermal performance.

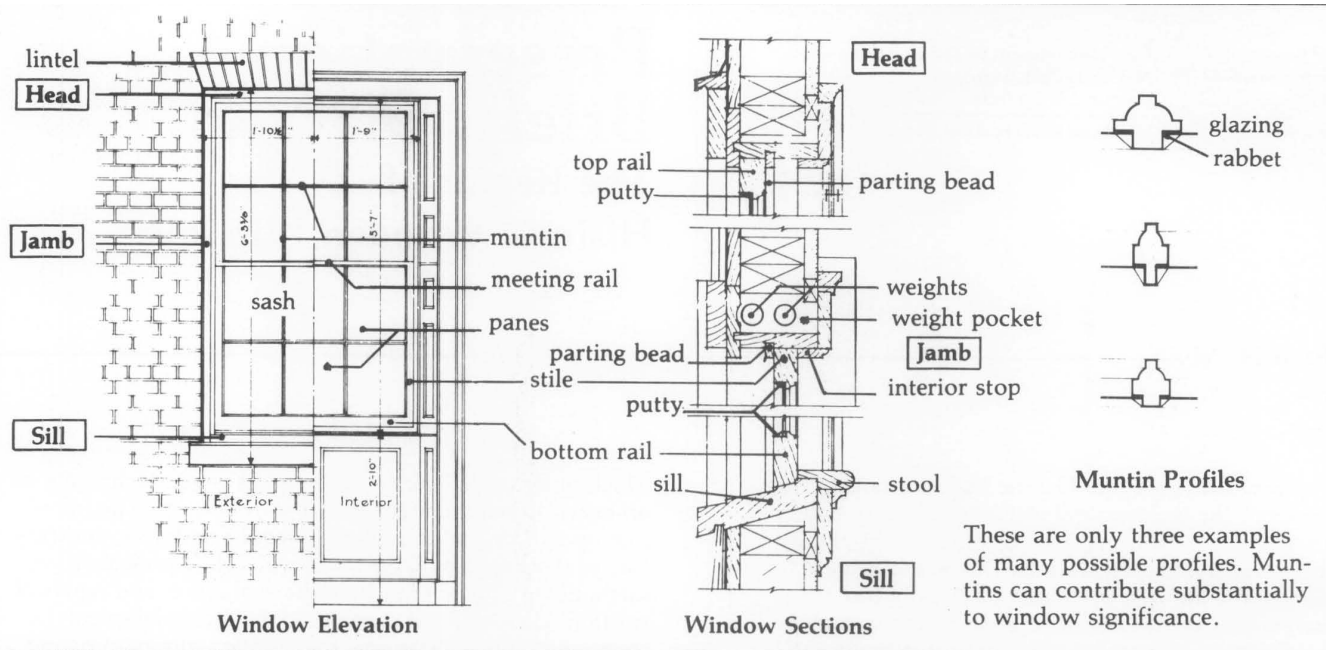
b. **Exterior Storm Windows:** Conventional exterior metal storm windows are acceptable for application to historic windows because they not only provide thermal insulation, but they also help protect and preserve the historic windows, even though they may somewhat alter exterior appearance.

c. **Storm Window Design:** Exterior storm windows should match the full size and the shape of the historic window. The size and locations of storm windows and screen rails should match those of the historic window sash behind. Storm window finishes should be selected to match the color of the historic window frame.

d. **Interior Storm Windows:** Various types of interior storm windows may be considered for use and are not subject to historic district design review as they do not affect the exterior appearance of the building. Fixed and removable magnetic storm windows are inexpensive, fully reversible, and may be removed during seasons when windows should be operable. Various types of operable interior storm windows are available as well.

Operable awning window with the screen mounted on the inside.

This exterior metal storm window is discretely mounted on the historic window frame, matching its size, and is barely visible.



These drawings of window details from the National Parks Service's* Preservation Briefs: 9, The Repair of Historic Wood Windows *identify major components, terminology, and installation details for a wood doublehung window. (NPS 1981)

Replacement Windows

a. **Replacement:** Replace historic windows that are severely deteriorated and cannot be repaired; or that are missing; or that have already been replaced with windows that are not historically significant to the building and are inappropriate to its character.

b. **Reproduction Windows:** Whenever possible, replacement windows should closely match the historic windows that were present. It is preferable that replacement windows be accurate reproductions of historic windows using historical, pictorial, and physical documentation in their design.

c. **Manufactured Windows:** When the installation of accurate reproduction windows is not the selected option, a new similar and compatible manufactured window may be installed provided that the new replacement window is consistent with the historic character of the building.

d. **Research:** Where historic windows are not present to provide a model, undertake research to determine the most appropriate configuration and profile of a new window to be installed in the historic opening.

e. **Replacement Sash:** When possible, replace only the sash of the window in-kind leaving the historic frame and sill intact. Install weatherstripping between the new sash and the historic frame to enhance thermal performance. In many cases, thin insulating glass can be installed in the sash while retaining accurate historic muntin profiles.

f. **Window Size:** New windows should be custom fabricated to match the full size of the historic window openings. Do not install new windows that are smaller than the full size of the historic window opening.

Replacement windows should closely match the character of the historic windows they replace even when they are of standard manufacture.

Replacement windows should match the full size of the historic window opening.

g. **Frame, Sill, and Trim:** When replacement window units are installed, modify or remove the existing frame to allow the new frame to match the existing in size and location. Remove and reinstall interior and exterior trim to allow for placement of the new window. Retain existing sills or match existing sill detailing.

h. **Window Material and Finish:** It is preferable that historic wood windows be replaced with new wood windows with a painted finish. However, certain types of manufactured windows with metal-clad sash or factory-coated wood may also be acceptable. New window frames should not be metal clad.

i. **Vinyl and Aluminum:** Vinyl and aluminum replacement windows are not acceptable as replacements for historic windows because they are of inferior quality and have short life spans.

j. **Window Type and Configuration:** Install replacement windows of the same type, sash configuration, and operation as the historic windows. Historic doublehung windows should be replaced with new doublehung windows; historic casement windows should be replaced with new casement windows; historic awning windows should be replaced with new awning windows; historic fixed windows should be replaced with new fixed windows.

k. **Insulating Glass:** The use of insulating glass to increase the thermal performance of windows may be acceptable. Minimize glass thickness to approximate the appearance of historic panes.

Authentic wood reproduction windows are preferred, although manufactured wood windows with finished aluminum metal cladding or factory-coatings may be acceptable.

Historic muntin configurations should be used in the replacement windows, with profiles and details that replicate the historic appearance as closely as possible.

l. **Muntins:** Match the muntin configuration of the historic windows being replaced. The use of true divided lights is preferred. However, certain types of false muntins simulating divided lights may be acceptable provided they are integral to the sash design, both interior and exterior, and are not easily visually identifiable as false. Do not install windows with applied or snap-in muntins or muntins that are on interior of insulating glass.

m. **Inappropriate Window Types:** Do not install new contemporary windows that are not appropriate to the character of the historic building, such as stock residential windows, bay or picture windows, glass block, Jalousie windows, or others.

Shutters should match the height and width of the window opening and be operable or at least appear to be operable.

Shutters

a. **Preservation:** Retain, preserve, and maintain historic shutters and shutter hardware when they are present. Retain shutter hardware even when shutters are missing.

b. **Shutter Installation:** The installation of historically appropriate shutters on historic windows is encouraged. In general, install shutters only where they existed historically and where appropriate to the architectural style of the house.

c. **Shutter Size and Configuration:** New shutters should match the height and width of the window opening where they are being installed. Shutters should be mounted to be operational or appear to be operational.

d. **Shutter Materials and Design:** Shutters should be of wood construction, but high end composites closely simulating wood may be permitted, and either one should be protected with a painted coating. Shutter form and design should be similar to that existing historically when historic information is available.

Historic shutter hardware such as this metal hinge should be preserved even when not used.

These shutters do not match the size of the historic window opening and could not be operable.

When information is not available, design shutters to be appropriate to the period and style of the historic building.

e. **Inappropriate Locations:** Do not install shutters on windows that would not have had them, such as bay windows, casement windows, or fixed windows.

f. **Inappropriate Sizes:** Do not install shutters that do not match the size and shape of the window on which they are installed. Shutters that are smaller than the windows and clearly could not have been usable are inappropriate.

g. **Shutter Mounting:** Install shutters with appropriate shutter hardware typical of the period of the building. Do not screw, bolt, or attach shutters directly onto building walls without appropriate hardware. Shutters should stand off of the wall and window frame surfaces creating a shadow line behind.

In this example, despite the presence of authentic shutter hardware on the frame, shutters are mounted flat on the walls adjacent to the window, which is inappropriate and could have been avoided.

New Windows in an Existing Historic Facade

a. **New Windows**: New windows should not be added to the primary facades. If necessary, new windows should only be added to side or rear facades that are not readily visible from the street.

b. **New Window Design:** If new windows are added to a side or rear facade, the type, size, placement, and detailing of the windows should be complementary with the design and detailing of the existing facade. Details of new windows should vary slightly from that of authentic historic detailing so that the window may be clearly identified as being from a later period.

The new windows to the right of this doorway may be an addition or once been an open porch. Though different in type, their character successfully reflects the character of the overall building.

HISTORIC PORCHES

Porches are a significant character defining feature of buildings within the historic district and are present on both primary and secondary facades. Their preservation is important in helping to maintain the character of both the building and the streetscape. In some cases they were added to earlier buildings but remain significant to the building's historical development. They were common to buildings in the late nineteenth and early twentieth centuries, before the introduction of air conditioning.

Porches are an important transitional space on a building where the exterior space and interior space intersect. They vary in use or function, some sheltering primary or secondary entrances and others serving as outdoor living areas. Porches are one of the most frequently altered features on a historic building.

Typically, porches feature common architectural elements, such as posts, railings, floor assemblies, steps, and a sheltering roof structure. Usually the design and detailing of the porch reflect the architectural style and treatment that is prevalent on the remainder of the building. Porches contribute to the architectural integrity of a building and should be preserved. Generally constructed of wood, porches can deteriorate quickly due to exposure to the elements. This is especially true in Massachusetts due to the weather cycle. Regular maintenance and upkeep is necessary to address deterioration before it escalates to a large-scale issue.

Historic Porches

a. **Preservation:** Preserve, repair, and maintain historic porches associated with buildings within the historic district.

b. **Repair:** Repair damaged or deteriorated elements of historic porches. Repair is always preferred over replacement, and limited replacement of deteriorated elements is always preferred over complete replacement of an entire porch.

c. **Replacement:** When deteriorated beyond repair, individual porch elements should be replaced in-kind to match original visual and physical properties, including materials, design, scale, level of detail, and color.

d. **Posts and Railings:** Porch posts, railings, balusters, and handrails are both functional and decorative and should be preserved and maintained. Repair damaged or deteriorated porch posts and railings whenever possible rather than replace them.

Wood porches are prominent features of many houses within the historic district. Exposed to the weather, their wood features require ongoing maintenance and occasional repair and replacement.

e. **Porch Ceilings:** Repair and replacement of porch ceilings should be based on their historic prototypes and should be undertaken in-kind. Sections of damaged or deteriorated ceilings should be completely removed prior to installation of the new material. New work should never be installed over damaged material or obscure historic features that contribute to the building's character.

f. **Replacement Materials:** Cedar, which is highly weather resistant, is an appropriate replacement material for posts, railings, and decorative woodwork for porches. When used, it should be painted.

g. **Contemporary Materials:** Do not replace historic wood posts or railings with inappropriate contemporary plastic or metal columns, posts, railings, or balusters.

h. **Conjectural Features:** Conjectural features should not be added to a historic porch unless there is evidence that they were originally present.

i. **Replacement in Entirety:** If a historic porch is severely deteriorated or structurally unsound, the entire porch may be removed and replaced in-kind. New work should closely match historic conditions in all respects. Replacement posts, railings and balusters should match in material, profile, configuration, and material.

j. **Porch Additions:** New porches may be added to side or rear facades but should be designed to complement the historic building with similar configurations and detailing. Porches should not be added to a primary facade if the building did not historically have a porch.

Historic front porch on a building dating to 1798. The porch may be a later addition/modification.

Highly detailed front porch with wood columns, roof balustrade, floor, and steps.

Wood entrance porch with access from the side.

Porch Flooring

a. **Porch Flooring:** Wood porch floors receive heavy use, are exposed to the elements, and tend to wear and weather quickly. Replacing limited sections of deteriorated flooring is preferable to total replacement. Replacement floorboards should closely match the dimensions of historic wood floorboards, which were typically between 3⁄4- and 1-inch thick.

b. **Replacement Floor Materials:** Mahogany, which is very hard, is a good material for replacing wood porch flooring and may be stained or painted. Synthetic flooring materials such as polymers are not encouraged but may be approved in particular locations on a case by case basis. Treated lumber may be used for structural elements and elements in contact with masonry in the reconstruction of porches where it is not exposed to view.

c. **Floor Installation:** Wood porch flooring should be laid perpendicular to the building wall and extend to the drip edge of the porch. A minimal slope away from the building to facilitate drainage is needed. A maximum gap of 1/16-inch should be left between boards to allow for expansion. Boards should be fastened with screws, not nails, to prevent cupping and bouncing. Wood edging should be applied to the exposed ends of floorboards to prevent moisture from entering the end grain. Surface coatings such as paint and stains that help prolong the color and condition of the wood are appropriate.

d. **Crawlspace Enclosure:** Use semi-open materials such as wood lattice and grills to enclose the space between a porch floor and the ground, providing adequate ventilation. Design enclosures to be visually appropriate to existing porch detailing. Avoid direct contact between wood members and the ground.

Wood porch flooring and related elements are exposed to the weather and susceptible to deterioration.

Fine wood eave, column, and beaded board ceiling, and additional detailing on a porch within the historic district.

Porch Steps

a. **Wood Steps:** Wood steps on nineteenth century buildings may have been replaced a number of times over the building's lifetime due to wear and exposure. The replacement of wood steps should be based on physical evidence and historic documentation if available, and not necessarily the current steps, which may or may not be an accurate copy of the original.

b. **Stone Base:** To control the deterioration of wood steps, installation of a stone or concrete plinth (base) underneath the steps structure is recommended. Not only does it support the bottom of the steps, but prevents the wood from resting on the soil.

c. **Stone Steps:** Stone steps provide access to some porches and entrances within the historic district. Treatment and repair should follow the recommendations contained in the masonry section of these guidelines. Historic stone steps should not be replaced unless the stone itself is severely deteriorated. In some situations, steps can be patched with consolidants tinted to match the color of the stone.

Porch Enclosure

a. **Interior Spaces:** Historic porches should not be enclosed with walls and windows to create or expand interior living space.

b. **Limited Enclosure:** Do not enclose historic porches on the primary facade of a historic building. On secondary or rear elevations, limited porch enclosures may be permitted. Limited enclosures involve installation of glass partitions inside of retained posts and railings, minimizing necessary wood structure. The installation should retain the visibility of historic details and maintain the original transparent and open appearance of the porch. It should be fully reversible.

Wood steps without railings providing access to a wood porch.

Modern granite steps with smooth treads and rough faced risers have been added to this porch. A black metal handrail has been installed for safety but is minimally visible.

This rear first floor area approximates the open feel of a porch.

SITE FEATURES

Landscape context is central to the character of any historic neighborhood. Overall spatial parameters of the landscape are established through the layout of the street, configurations of lots and lot lines, and the setbacks and forms of buildings, all of which may vary by neighborhood. The vegetation that is present softens the landscape, modulates spatial character, and provides visual interest and shade. Important to the character of most historic neighborhoods is the presence and stewardship of large deciduous canopy trees, which give spatial scale to the buildings and probably play the strongest role in establishing a pleasing neighborhood character.

Important as it is, however, vegetation is not reviewed in the design review of Wellesley's historic districts. Nor has vegetation presented issues of contention with respect to negative impacts. Most of Wellesley's historic neighborhoods are filled with large canopy trees which contribute to neighborhood character. Smaller scaled vegetation varies by property but is generally ample, well designed, and well maintained through the Town.

Other site features, most of which are subject to design review, are discussed below and include retaining walls, steps, curbing, paving, fences, railings, lamps, and other permanent small scaled structures. A considerable number of these features are not original historic fabric but have been added to the neighborhood landscape over time, many of them in recent decades. Of these, fencing is the most visually prominent. First, however, this chapter addresses the importance of the overall streetscape and the shared public realm.

Streetscape

The streetscape is within the public domain and is generally not subject to design review with respect to individual properties. It includes the street, curbs, sidewalks, utilities, and trees and grass areas within the right of way.

Stewardship of the public streetscape is important. Changes adverse to the character of the historic neighborhood should be avoided. When changes are to be considered within a designated historic district by a public agency, utility, or other entity, the Historic District Commission should be consulted.

Portion of the streetscape within the Cottage Street Historic District – its narrow street, informal sidewalk, lack of curbing, and prominent utility poles are characteristic of its vernacular development.

a. **Identification and Assessment:** When public improvements are proposed within a historic neighborhood, historic landscape characteristics and features should be identified and the impact of proposed changes should be assessed.

b. **Historic District Review:** Within a designated historic district, proposed changes within the streetscape should be reviewed with Wellesley's Historic District Commission.

c. **Street Construction:** Assess the impact of street construction projects on adjacent historic landscapes and structures. If negative impacts are possible, identify and implement protective measures.

d. **Historic Features:** Identify and preserve historic features within the streetscape. Such features might include stone curbing, classic cast iron hydrants, light fixtures, and others.

e. **Streetscape Elements:** Preserve major streetscape elements and characteristics, including street width, setbacks, curbs, trees, lawns, and sidewalks.

f. **Circulation:** Retain historic pedestrian and vehicular circulation patterns.

g. **Historic Character:** Avoid changes that might negatively impact the historic physical and spatial character of the streetscape and the neighborhood.

h. **Canopy Trees:** Avoid changes and work that might damage canopy trees along the streetscape. Prune trees carefully to allow utility wires to run through the canopy while preserving the shape of the tree canopy.

Retaining Walls, Steps, and Curbs

Natural field stone is the most common material used for retaining walls within the historic district. Cut granite is commonly used for site steps. Some of these materials may be historically significant, but they are all characteristic of the neighborhood.

Cottage Street streetscape showing stone retaining walls that border one side of the street.

Stone retaining wall and entrance steps.

Stone retaining wall bordering the street and driveway.

a. **Preservation:** Retain, maintain, and preserve stone retaining walls and steps within the historic neighborhood. Retain historic stone curbing where it is found to be present.

b. **Natural Stone:** Use natural stone similar to that of existing retaining walls and steps for new retaining walls and steps. Use similar heights, coursing patterns, and configurations. Brick retaining walls may be permitted in neighborhoods where they are an existing historic feature.

c. **Non-historic Materials:** Cast block and other non-natural materials are not recommended for retaining walls.

Walkway Paving

Natural stone and brick are most common in the paving of walkways within the historic district and contribute to the character of the district. Some of these materials are historic, while others are newer installations or replacement materials. Concrete walks are present in some locations and are not inappropriate. Several recent installations have used cast pavers.

a. **Preservation:** Identify, retain, and preserve historic walkways, paving materials, and circulation patterns where they are present. Do not replace historic paving unless it is deteriorated beyond repair.

b. **Pattern and Alignment:** Retain the alignment, widths, and configurations of non-historic pedestrian walkways where they have become character defining features of the historic neighborhood.

c. **Repair and Replacement:** When repair or replacement of materials is necessary in historic walkways, replace in-kind utilizing paving materials that are similar in type, appearance, and composition.

d. **New Walkways:** The addition of new sidewalks or walkways within a historic neighborhood may be desirable and necessary to enhance pedestrian access and connectivity. New pedestrian routes should be compatible with the existing pedestrian circulation patterns.

e. **New Paving:** New paving should be consistent with the character and appearance of historic paving. The use of stone or brick paving similar to those already existing is preferred.

f. **Concrete:** The use of concrete for new or existing walkways is acceptable. Concrete should be colored to match the muted hues of existing older concrete. Concrete using a natural sand finish for coloring is preferred.

g. **Cast Pavers:** The use of cast pavers for new or existing walks is acceptable. Pavers should have exposed grains and be of natural colors similar to the grey of natural stone.

Historic stone paved entrance walk.

Historic brick entrance walk.

Fencing

Wood fencing is typical within the Cottage Street Historic District and is present in a variety of forms and designs. Low, wood picket fencing is most common in front yards along the streetscape. Tall wood board fencing is present along some side and rear property lines providing enclosure and privacy for backyards. Cast iron fencing may once have been present historically in some locations, low in front yards and taller in rear yards, and would not be inappropriate today.

a. **Preservation:** Identify, retain, and preserve historic fencing where it is present.

b. **Repair and Replacement:** Repair deteriorated portions of historic fencing in-kind. Where replacement is necessary due to the extent of deterioration, replace historic fencing by matching the original in material, design, and installation.

c. **New Wood Fencing:** New wood fencing similar to existing designs and configurations is appropriate and should take inspiration from appropriate existing fencing within the historic neighborhood. Fencing in front yards along the sidewalk and streetscape should be of low height.

d. **Metal Fencing:** Metal fencing with narrow pickets similar to historic cast iron fencing may be permitted. Use black, dark green, or other appropriate color. Fencing in front yards along the sidewalk and streetscape should be of low height. Provide manufacturer's information and samples of proposed fencing for review and approval.

e. **Side and Rear Fencing:** Taller fencing is permitted along side and rear property lines to allow for privacy for backyard areas behind residences. Vertical wood board fencing is preferred. The use of lattice tops similar to some existing installations is desirable.

Elaborate wood picket fence bordering the sidewalk and street. Note brick entrance walk.

Simple wood picket fence along the sidewalk, a typical condition within the historic district. Note brick entrance walk.

Another example of a low wood picket fence characteristic of the historic district. Wood picket fencing is in keeping with the simple vernacular design of many of the residences within the Cottage Street Historic District.

f. **Tall Metal Fencing:** Tall metal picket fencing may be acceptable along side and rear property lines, and other forms of proposed fencing will also be considered for their appropriateness.

g. **Tall Front Fencing:** Taller fencing facing the street intended to protect rear yard areas is permitted but must be located in side yards beside the primary building. Tall fencing should be set back from the front façade of the residence. Tall fencing facing the street is not appropriate in front yards. Trellis style wood fencing is preferred.

h. **Non-historic Materials:** Plastic fencing, chain link fencing, and other non-historic materials are inappropriate within Wellesley's historic neighborhoods and historic districts.

Historic residence with a wood picket entrance gate of more elaborate design, in keeping with the architectural style of the residence.

Lighting

Historically, exterior site lighting was not common in residential neighborhoods during the late nineteenth and early twentieth centuries. When present, usually only in wealthier areas, fixtures were often gas, supplied from municipal works. Municipal electric lighting came later. Exterior lighting should be limited and discrete with historic neighborhoods. Lantern style public street lighting has been installed along streets in some portions of the historic district.

a. **Residential Lighting:** Lighting emanating from lit interior spaces through the windows of residences is the most appropriate form and degree of lighting characteristic of historic neighborhoods.

b. **Exterior Lighting:** Exterior lighting should be used sparingly and only in discrete locations in historic neighborhoods. Discrete exterior lighting is appropriate at entrances, porches, gates, steps, and other similar locations to illuminate destinations and conditions for safety.

A tall wood trellis has been installed to enhance the character of the front yard of this historic home. This is probably a non-historic condition and is unorthodox. However, it adds to the charm of the residence; seems appropriate to the character of the neighborhood due to its design; and seems appropriate to the character of the property due to the degree of setback, quality of the landscaping, and the simplicity of the house.

Low cast iron fencing was common in residential neighborhoods during the late nineteenth century. Where such fencing still exists, it should be retained, even if only as remnants.

c. **Flood Lighting:** The lighting of building facades and yard areas with flood lights is inappropriate within a historic neighborhood. The use of Building mounted, ground level, and tree mounted flood lighting is discouraged.

d. **Building Features:** The limited facade lighting of individual building features such as entrances may be permitted but should be discrete and of low intensity.

e. **Ground Lighting:** The installation of low, ground level light fixtures at steps and along walkways may be appropriate but should be limited in extent. Fixtures should illuminate the ground, and bulbs should not be visible to pedestrians.

f. **Fixture Style:** Metal lantern style fixtures mounted on poles or on buildings are a common form of exterior lighting within historic neighborhoods. Where lighting sources are visible, they should be of warm hue and limited strength. Many metal fixtures in use have a black finish.

g. **Contemporary Fixtures:** The use of contemporary fixtures will be considered and is not inappropriate. Contemporary fixtures that light the ground and where the light sources is shielded from view is encouraged.

Metal lantern style light fixtures at entrances, on porches, and along walkways are common within the Cottage Street Historic District.

CHAPTER 7 – ADDITIONS, NEW CONSTRUCTION & SITE FEATURES

Additions and new construction can make interesting and meaningful contributions to a building and a historic district by adding creative visual elements that respond to and reinforce established patterns and context.

As lifestyles change, buildings often need to adapt and evolve to accommodate new situations and needs. A number of buildings within the Cottage Street Historic District were modest and very small when originally constructed—part of their cottage charm. Many have been expanded with additions and dormers over time, adding interior living space. Additional new space may be desired by owners in the future as well. The challenge in historic preservation is to accommodate desired change in a way that reinforces rather than diminishes historic character, whether addressing an addition to an existing building or a completely new building.

There is limited opportunity for the construction of new buildings within the Cottage Street Historic District as the neighborhood is practically built-out. The construction of new buildings will continue to occur in other historic neighborhoods in Wellesley as well, and these guidelines are intended to also be helpful in their design and implementation.

New construction should be designed in a manner that is compatible and sympathetic to the character of the historic district or neighborhood, especially buildings that are immediately adjacent, ensuring that the character and integrity of surrounding historic resources are preserved. New buildings should be consistent with the site layout, orientation, scale, form, materials, features, and detailing established by surrounding structures.

The design of new additions to existing historic buildings should follow the same guidelines as outlined for new construction. Generally, however, the specific focus in the design of additions should be its relationship to the character and appearance of the specific existing building to which it is attached. Inappropriate additions and alterations can diminish the integrity of a historic building. Carefully designed additions and alterations that are sensitive to historic character and building fabric can enhance a building's character as well as its use.

The character of the historic district and its streetscape relies upon the visual continuity and interplay established by the presence of similarly designed and harmonious buildings. Yet individuality is important as well. The historic district is comprised of a number of different residential building types designed during different periods for different owners. Together, both the continuity and individuality of historic buildings combine to create a neighborhood of distinctive character.

Additions and new construction that are added to the historic district should express their individuality. They should speak of the time in which they are built in a contemporary way that is respectful of their historic surroundings. They should not seek to replicate historic buildings or styles, but may choose to reference historic styles in their design. While contemporary to their time and place, additions and new buildings should fit in and contribute positively to the overall character of the neighborhood. The following guidelines are applicable to new additions to existing historic buildings as well as to entirely new buildings within the historic district.

GUIDING PRINCIPLES FOR NEW DESIGN

a. **Design Excellence:** Wellesley's historic district has been designated in recognition of the quality of its buildings. Additions and new construction should continue the local tradition of design excellence, which cannot be achieved solely through regulatory review. A design team experienced with design in a historic context is important and will bring careful thought, sensibility, flexibility, and high quality to new construction projects within the district. Design excellence cannot be achieved by simple application of a formula but requires a creative response to contemporary requirements and the historic context.

b. **Design Context:** Identify the character defining features of the surrounding historic buildings and streetscape. Design additions and new buildings to visually relate to their immediate historic context and the context of the historic district as a whole. Respect established design precedents in the immediate area, but do not directly imitate existing buildings.

c. **Demolition and Removals:** The demolition of historic buildings to allow for new construction is not permitted within the historic district. New additions to existing buildings should be accomplished in a manner that minimizes the removal of authentic historic building features and fabric.

Side and dormer additions to a home within the historic district.

SITE LAYOUT AND ORIENTATION

a. **General Layout:** Retain established property line patterns, street relationships, setbacks, primary and secondary building orientation, circulation patterns, and landscape elements.

b. **Location of Additions:** Additions should be located on secondary side or rear elevations. Additions to the primary, front facade of a historic building are discouraged and may be prohibited.

c. **Size of Additions:** The total square footage of an addition should be limited to no more than 30 percent of the square footage of the primary historic building. For instance, a building with a footprint of 2,500 square feet would be permitted an addition not to exceed 750 square feet.

d. **Setback:** In areas where there is an established consistent setback, the setback of new construction should match that of neighboring properties.

e. **Varied Setbacks:** In areas with varied setbacks, the setback for new construction should be within ten percent (10%) of those of neighboring properties.

f. **Corner Lots:** New construction on corner lots should continue the established setback along both street frontages.

g. **Variations:** Variations to these setback guidelines may be warranted in some cases, but decisions should be carefully considered with respect to their impact on the overall streetscape.

h. **Lot Coverage:** New construction should be consistent with adjacent historic buildings in terms of lot coverage and building-to-lot ratio. In no case should they exceed that allowed by Town bylaws.

i. **Spacing of Buildings:** Design new construction to follow the existing pattern of building widths and spacing between buildings. The spaces between buildings help define the spatial character of the historic district.

j. **Building Orientation:** Primary buildings should have a similar orientation and relationship to the street as the existing buildings in the vicinity.

k. **Orientation and Additions:** The original orientation of a building should not be altered by an addition. For example, the addition should not result in a secondary facade becoming the primary facade.

New additions should be inspired by and designed to reflect the character of the building to which they are attached but should have a subsidiary visual role and may be expressive of their own use and purpose.

l. **Entrance Orientation:** Primary entrances of new buildings generally should be on the primary facade, face the street, and be consistent with the pattern of entrances and facades within the vicinity. A few buildings within the historic district have their primary entrances on side facades.

m. **Existing Entrances:** Additions and alterations should not obscure, obstruct, alter, or remove an existing building's primary entrance or other key features of the primary elevation.

n. **Circulation Patterns:** Create pedestrian and vehicular circulation patterns that connect with and reflect the patterns along the streetscape and within the vicinity. Primary entrances generally connect directly to the street. Driveways are generally immediately adjacent to buildings.

o. **Yard Areas:** Establish yard areas and outdoor spaces that are consistent with and complementary to those of the streetscape and properties within the vicinity.

p. **Secondary Structures:** Locate secondary structures, such as garages and sheds, in a manner consistent with existing secondary structures, generally to the rear and side of the primary building.

Existing additions located to the side and rear of their primary historic buildings within the historic district.

ARCHITECTURAL EXPRESSION

a. **Complementary Expression:** New construction in the historic district should be sympathetic with and complementary to the existing architectural vocabulary of historic buildings within the vicinity.

b. **Complementary Additions:** Design additions and alterations to be sympathetic and complementary to the character of the historic building to which they are attached.

c. **Character Defining Features:** Identify and retain historic character defining features when planning additions and alterations to a historic building.

d. **Contemporary Design:** New buildings should be of contemporary design that reflects the building's current time, place, use, and culture while being respectful of and compatible with the character of the historic district.

e. **Contemporary Additions:** New additions may be contemporary in design, or may replicate the historic character of the main building. Where an addition replicates the historic character of the main building, create subtle differences to clearly distinguish it as a later structure.

f. **Inspiration:** New architectural designs are encouraged to take inspiration from and make visual references to the historic character of buildings in the vicinity.

g. **Compatibility in Contemporary Design:** In general, compatibility in contemporary design can be achieved by reflecting some design characteristics of historic buildings in the vicinity, as outlined in these guidelines, while varying from others and creating new elements expressing a level of individuality.

h. **Contemporary Interpretation:** Consider integrating contemporary interpretations of traditional designs and details for new construction. Use of contemporary window moldings and door surroundings that are similar to but do not exactly replicate historic details, for example, can provide visual compatibility while conveying that the building is new.

Sketch of a new residence designed and approved for 636 Washington Street within the historic district. Many new buildings in Wellesley use historic shingle style forms and detailing. Most are creatively designed and include features, such as two- and three-car garages, that clearly mark them as contemporary. (Sketch: Union Studio, Providence, RI)

i. **Architectural Patterns:** The rhythm of the facade of new buildings should reflect the characteristic rhythm of surrounding buildings, including fenestration, forms, rooflines, and floor-to-ceiling ratios.

j. **Architectural Detailing:** Incorporate architectural detailing that is visually similar to the character and styles of detailing in neighboring buildings within the district. Detailing should be simple in design and should complement, but not visually compete with, the character of the neighboring historic buildings. Architectural detailing that is more ornate or elaborate than that found within the district is inappropriate.

k. **Historic Similarity:** While compatible contemporary design is encouraged, new buildings that are similar to existing historic buildings in materials, form, massing, and architectural features are acceptable as long as the new buildings can be clearly distinguished from historic buildings.

l. **Dramatic Contrast:** Radically contrasting designs for additions or new buildings are inappropriate within the historic district and will not be permitted.

m. **False Historicism:** Avoid replicas of historic buildings and styles. An example might be the replication of a building already existing within the district. False historicism diminishes the integrity of the historic district by confusing old and new.

n. **Documentation:** Document existing historic conditions in drawings and photographs before beginning any alterations or additions to an existing historic building.

This 18th century historic residence in Beverly, MA was converted to commercial office use with a large but compatible addition to the rear. Though large, the addition modulates reasonably in form in relation to the historic residence. It uses matching materials and colors but has creative contemporary elements.

SCALE, MASSING, AND FORM

a. **General Characteristics:** New buildings should be designed to complement the form and massing of neighboring historic buildings and should generally be of the same average height, width, and volume as buildings in the vicinity.

b. **Subordinate Additions:** Additions should be subordinate to the primary historic structure. They should not overwhelm the original structure. Additions should be designed in such a way that they minimize their visual impact on the building.

c. **Additions Near the Primary Facade:** Additions located near the primary facade should adhere more closely to historic character, while additions that are less visible from the front may be more adventurous.

d. **Distinguishing Characteristics:** Design additions so there are subtle, distinguishing characteristics between the historic portion and new addition. This may include simplifying details, changing materials, or modifying proportions.

e. **Building Scale:** The scale of a new construction is determined by the relative size and height of the construction in relationship to the existing building or to its neighbors. Design additions to be compatible with the existing building in scale, massing, height, and form. The overall scale of a new building and building components should be compatible with those of neighboring buildings within the historic district.

f. **Human Scale:** New construction should have a human scale. In general, the size of major architectural features in relation to the human body helps determine whether a building has human scale. Key features include building forms and shapes, windows, doorways, porches, steps, and other elements.

Today, it would be recommended that this historic addition be stepped back from the face of primary elevation to better retain the facade's expression.

These two similar rear additions significantly expand the useable space of their buildings while retaining the character of the primary structures.

g. **Building Mass:** Building mass should have a similar sense of weightiness or lightness as that of surrounding historic buildings, as determined by the proportion of solid surfaces (walls) to voids (windows, doors, porches).

h. **Building Form:** Form in new construction is determined by the shape, volume, and size of the overall building envelope and its major components. The form of a new addition should reflect but be subsidiary to the form and shape of the existing building. The form(s) of new buildings should be complementary with and reflective of those of neighboring buildings within the historic district.

i. **Proportion:** Design additions with similar proportions as those of the existing building. Design new buildings to be proportional to surrounding buildings. Consider important building proportions such as heights and widths, roof pitch, floor-to-floor heights, the size and placement of windows and doors, and the scale of articulated elements such as porches and bays.

j. **Rhythm:** Respect the characteristic rhythms established by the forms, rooflines, window and door placement, and other architectural features of the existing or neighboring buildings.

k. **Floor-to-Floor Heights:** Foundation and floor-to-floor heights in new construction should be within ten percent (10%) of the floor-to-floor heights of existing or neighboring historic buildings.

l. **Height Variations:** Where there is variation of building height within the immediate neighborhood, a new building should generally relate to the predominant pattern.

Adjacent buildings within the district vary in height.

The flush dormer above may be a later addition to make the second floor of the building more usable and has gained historical significance due to its age. New dormers should be set back from the first floor wall plane so that the overall cottage form of the building is better retained.

MATERIALS

a. **Compatibility:** Exterior building materials should be complementary to and compatible with the materials used on the primary building for additions and on neighboring historic buildings for new buildings. Materials should be of a complementary type, material, size, texture, color, and level of craftsmanship to promote continuity within the historic district.

b. **Quality:** Cover and finish exterior walls with quality materials that are compatible with those of the existing or surrounding buildings.

c. **Traditional Materials:** The continued use of traditional materials such as wood, stone, and brick is preferred. Stone and brick are present to a limited extent within the historic district, principally for foundation walls, exterior steps and walks, chimneys, and other features.

d. **Predominant Materials:** In general, wood is the predominant material in use within the historic district. When there is a predominant building material in a specific area, such as wood clapboard or shingle siding and detailing, it is preferred that the predominant material be utilized in new design.

e. **Visual Compatibility:** Materials need not be exactly the same as those of the primary building or of adjacent historic buildings but should at minimum be visually complementary. The use of materials that are visually similar to the materials of the primary building or neighboring historic buildings is an important way of achieving a level of compatibility within the historic district.

f. **Weather Resistance:** Quality and durability can be reflected in the type of material used, such as in the species of wood. Western Red Cedar, Mahogany, and Spanish Cedar are often used in new construction for exterior siding and woodwork because of their resistance to weathering, rot, and insect infestation.

Wood is the predominant material of primary historic buildings within the historic district and is easily adaptable to the expression of additions and new construction.

g. **Roof Materials:** Authentic historic roof materials such as wood shingles and slate are encouraged for both new and replacement construction within the historic district. However, high quality asphalt shingles and synthetic slate

shingles are appropriate. For additions, match or complement the roofing materials of the primary building. For new buildings, select roof materials that are similar in type, pattern, form, texture, and color to those traditionally used within the district.

h. **Metal Roofs:** Custom and prefinished metal roofs may be permitted for new or replacement construction within the historic district. Install new metal roofs in a similar manner and appearance as historic metal roofs.

i. **Inappropriate Materials:** The use of synthetic materials that dramatically contrast with the character or quality of historic materials should be avoided. Such materials include vinyl and aluminum siding, unpainted or naturally finished wood, exterior plywood systems, fiberboard, simulated or veneer stone, glass block, and stucco. These are usually incompatible with the visual character of the historic district.

j. **Permitted Synthetic Materials:** As discussed under the topic of Wood Siding, quality synthetic materials such as cement board and some polymer materials that visually replicate the appearance of wood may be permitted in new construction, especially in locations subject to extreme weathering or that are difficult to maintain. Where permitted, such materials must have a traditional painted finish. Simulated wood textures are not appropriate.

k. **Stucco:** Where stucco is appropriate and permitted as an exterior finish material, Exterior Insulation Finishing Systems (EIFS) is not appropriate as a substitute for actual stucco.

It appears that this historic building was expanded to the rear and that small additions and dormers were added—all with matching materials and details.

Stucco is present but in limited use within the historic district, but contemporary asphalt shingles are widely used, reasonably priced, and easily adaptable to a wide variety of forms and conditions.

BUILDING FEATURES

Individual building features such as roofs, entrances, windows, bays, and porches add visual interest to a facade and break up the building mass, helping to establish a human scale. The location, size, placement, and style of these building features contribute to the character of the surrounding neighborhood. New construction that respects and replicates the types of prevailing architectural features of the primary building for additions or of neighboring buildings for new buildings reinforces compatibility and consistency within the historic district.

Roof Forms

a. **Primary Roof Form:** Design new buildings so that the orientation of the primary roof form is parallel with the majority of other roofs on the street where roof forms are relatively consistent and a character defining feature. The roofs of new additions are often perpendicular to those of the primary building.

b. **Form and Appearance:** Roofs of new construction should visually relate to those of the primary building for additions or of neighboring historic buildings for new buildings in pitch, size, scale, complexity, color, and material.

c. **Roof Type:** Gable roofs are most common within the historic district and in general should be the primary roof type used in new construction. Gently pitched shed roofs are used for many smaller additions within the district.

d. **Ridge Heights:** The ridgelines of roofs with multiple gables should generally be uniform in height. Cross gables should intersect at the primary ridgeline unless established as a uniform secondary roof form. The ridgelines of additions should generally be lower than that of the primary building, reflecting its smaller form and subsidiary visual role.

e. **Low Pitched Roofs:** Nearly flat roofs are often used in historic buildings for entrance porches, side porches, and shed additions and may be appropriate as a secondary roof form in new construction. Generally, they are constructed using flat seamed metal, but other materials such as rubber roofing may be considered for roofs that are not visible.

f. **Cornice Detailing:** Cornices, bargeboards, and edge treatments of new roofs should be designed to have a similar size, scale, and configuration as historic detailing though need not replicate historic detailing.

g. **Skylights:** Where needed, install skylights on side or rear-facing planes of roofs minimizing their visibility from the street. Do not install skylights on the roof of the principal facade facing the street. Minimize the frame size and profile of the skylight, and use frame colors that blend with the color of the roofing.

Entrances

a. **Orientation:** As discussed under Entrances and Doorways, the orientation of the primary entrance of a new building should be similar to the orientation of other neighboring buildings, most commonly on the principal facade and related directly to the street.

b. **New Entrances in Additions:** In some cases, it may be desirable to create a new entrance in an addition or alteration which will be in primary use, such as an entrance adjacent to a driveway or parking area. In such cases, the primary entrance of the original historic building should not be altered or removed, even though it will have limited use. Such new entrances should only be placed on side or rear facades.

c. **Design:** The size, scale, organization, and presentation of the primary entrance of a new building should be similar to those of

other neighboring buildings and should evoke a human scale. The primary entrance should enhance the connection between the street and the building.

d. **Doorways:** Doorways in new construction should relate to the character of those of the primary building for additions and to neighboring historic buildings for new buildings. Frame dimensions, proportions, and configurations should be comparable though need not precisely replicate historic configurations. The use of comparable panel and light configurations, including the presence of sidelights and transoms, is recommended.

e. **Entrance Porches:** Entrance porches of various sizes and configurations are present within the historic district and are appropriate for new construction. In general, most entrance porches are simple and modest in size but adequate to protect those using the doorway from the weather.

f. **Entrance Steps:** Simple wood and stone steps are common for entrance porches within the historic district, though brick is present as well. All are appropriate and can add visual quality to the entrance.

Windows

a. **Window Design and Placement:** Design windows in new construction to be generally compatible with the type, size, proportions, operation, arrangement, and placement of the windows of the primary building for additions and of neighboring historic buildings for new buildings. Windows in new construction need not precisely replicate historic design and placement, but they should generally be of sympathetic character.

b. **Expression:** Design windows to be expressive of the architectural character of the new facade while generally sympathetic with the character of the primary building for additions or of neighboring buildings for new construction. Creative but sympathetic variation is permissible. Be cognizant of the use of windows to achieve a sense of human scale in the facade.

c. **Bay Windows:** Do not install new bay windows in areas where they are inappropriate to historic architectural styles and for which there is no historic precedent. Bay windows are appropriate to some late nineteenth and early twentieth styles.

d. **Design of Bay Windows:** Where appropriate and permitted, design new bay windows to be compatible with the width, height, projection, and general style of historic bay windows of buildings in the vicinity and of appropriate scale to the facade in which it is placed.

e. **Picture Windows:** Picture windows, jalousie windows, and other types of contemporary windows are generally inappropriate to the historic context of the district.

Porches

a. **New Porches:** The incorporation of porches into new construction in a manner, location, and use characteristic of neighboring historic buildings is encouraged. The use of porches that relate to the pedestrian character of the streetscape is encouraged.

b. **Porch Design:** Design of new porches should be compatible with the layout, form, scale, building relationships, and detailing, of those of the primary building for additions and of neighboring historic buildings for new buildings.

c. **Historic Prototypes:** In locations where traditional historic porch columns, posts, railings, and steps are prevalent, such new elements should be designed in a manner compatible with the historic types. They need not, however, exactly replicate historic designs.

GARAGES AND OUTBUILDINGS

a. **Secondary Structures:** New secondary structures such as detached residential garages, sheds, and outbuildings should have a similar layout, orientation, setback, scale, form, roof type, and materials as those of existing secondary buildings within the district.

b. **Relationship to the Primary Building:** New secondary structures, such as detached residential garages, sheds, and outbuildings should complement the layout, setback, scale, form, roof type, and materials of the primary building.

c. **Subordinate Relationship:** Design new garages and outbuildings to be visually subordinate to the principal historic or new building in terms of their height, massing, and form.

d. **Building Size:** New outbuildings should be no larger in plan than 40 percent of the principal historic building footprint.

e. **Character:** Relate new garages and outbuildings to the period of construction of the principal building on the lot through the use of complementary materials and simplified architectural details.

f. **Windows and Doors:** Design window and door openings to be similar to those found on historic garages or outbuildings in the district or on the principal building in terms of their spacing and proportions.

g. **Garage Doors:** Design and place garage doors of secondary structures in a manner characteristic of historic garages of properties within the district. New garage doors should have similar proportions and materials as those traditionally found within the district.

h. **Garage Doors on Additions:** Do not place garage doors on the front, street facades of additions to the primary building where there is no historic precedent.

Examples of existing garages within the historic district.

MECHANICAL EQUIPMENT

a. **Visibility:** Do not locate utility boxes, air conditioners, rooftop mechanical equipment, skylights, satellite dishes, and other roof appurtenances on primary facades, front-facing roof slopes, in front yards, or in other locations that are clearly visible from the public right-of-way.

b. **Building-mounted Equipment:** Paint devices mounted on secondary facades and other exposed hardware, frames, and piping to match the color scheme of the primary building or screen them with landscaping.

c. **Freestanding Equipment:** Screen service areas, air conditioning units, and other mechanical equipment from public view using a fence, plantings, or other enclosure.

d. **Roof-mounted Features:** Locate and screen equipment and features mounted on the roof to avoid view from public right-of-way. Where needed, install roof mounted features only on side and rear-facing roofs. Do not install roof equipment or features on the roofs of primary facades facing the street. Standard flashed pipe roof vents for bathrooms within the building are an exception.

Mechanical installations such as electrical boxes and dryer vents should be located on side and rear facades and should be minimally visible from the street.

Plumbing vents must be located above bathrooms but should be colored to be minimally visible.

SITE FEATURES

The character and appeal of historic neighborhoods is enhanced by the layout and design of site features and landscaping in yards visible to the public.

General

a. **Site Features:** Design and install new site features that are consistent with the historic character of the building, property, and adjacent properties. In general, simplicity and restraint are preferred.

b. **Front Yards:** Design and maintain front yards as privately owned space visible to neighbors and the general public from the street. Front yards are an important character defining feature of the streetscape.

c. **Visibility:** Site features, fencing, gardens, and landscaping are appropriate in front yards for utility and to enhance privacy and safety but should not visually isolate the historic residence from view.

Walkways

a. **Historic Walkways:** Retain historic walkways and circulation patterns. Preserve alignment, widths, and configurations of historic walkways where they are a character defining feature of the landscape.

b. **Historic Materials:** Preserve historic paving materials of walkways where they still exist. When limited replacement of materials is necessary, replace in-kind utilizing materials that are similar in appearance and composition.

c. **New Walkways:** The addition of new walkways may be desirable and necessary to enhance pedestrian access and connectivity. New pedestrian routes should be compatible with the existing pedestrian circulation patterns.

d. **New Materials:** Traditional paving materials such as stone and brick are preferred for new and existing walkways. Contemporary materials such as pre-cast concrete pavers are permitted. Material, color, and texture should be compatible with the character of traditional materials.

Lighting

a. **Site Lighting:** Lighting of exterior spaces visible from the street should be minimized and limited to locations necessary for safety and visibility, such as gateways, steps, and building entrances.

b. **Fixtures:** New light fixtures should be pedestrian scaled or ground level and should direct light to the ground and away from surrounding properties. It is preferable that lamps be shielded from direct view. Fixtures and posts should be restrained in design and compatible with the character of the building.

c. **Building Mounted:** In general, do not install site lighting on historic buildings. If installation on buildings is necessary, minimize damage to the historic building fabric.

d. **Building Lighting:** Flood or spot lighting of building exteriors is strongly discouraged.

Driveways and Parking

a. **Historic Driveways:** Retain historic driveway configurations where they are present.

b. **New Driveways:** Minimize the area and width of new driveways, which should typically be no wider than 10 feet.

c. **Parking Areas:** Design new parking areas to be as unobtrusive as possible. Parking should be located to the side or rear of properties. Do not pave or use front yards as parking areas except where already existing.

d. **Materials:** Traditional paving materials for driveways include asphalt, paving stones, brick, and gravel.

Decks and Patios

a. **Location:** Outdoor decks and patios should be located to the side and rear of buildings and should be minimally visible from the street. Ground level paving for patios in front yards may be permitted as part of garden and landscape design but should not be visually dominant.

b. **Design and Materials:** The design and materials for decks should take inspiration from the existing building and be a compatible extension of and addition to the building. Traditional paving materials such as stone or brick are encouraged for patios.

Fencing

a. **Historic Fencing:** Preserve and maintain historic fencing where it remains. Replace only deteriorated sections that are beyond repair. Match replacement materials to the color, texture, size, profile, and finish of the original.

b. **New Fencing:** New fencing should appear similar to that used historically within the neighborhood in terms of material, scale, transparency, and character. The design of fencing should respond to the design and materials of the primary building.

c. **Location:** Locate fencing where they have typically existed historically within the neighborhood, generally bordering the sidewalk or street, along property lines, and as a divider between front and back yards.

d. **Front Yards:** Limit the height of new fencing in the front yard to a maximum of four feet. Fencing in front yards should have a high degree of transparency. Wood and metal pickets are preferred materials and types with gates should be of similar design. Solid fencing and masonry walls (except retaining walls) are discouraged in front yards.

e. **Non-Traditional Materials:** Vinyl fencing is permitted but not encouraged and should have the appearance of wood fencing. Chain link fencing may be prohibited in front yards and if used in back yards should be black or dark green.

Wood fence and trellis in a front yard garden.

Stone retaining wall and steps, contemporary cast concrete pavers, and brick pavers within the historic district.

APPENDIX A – HISTORIC DISTRICTS BYLAW

SECTION 14D. HISTORIC DISTRICTS

A. Purpose

The purpose of the Historic District is to promote the education, cultural, economic and general welfare of the public through the preservation and protection of the distinctive characteristics of buildings and places significant in the history of the Town of Wellesley and the Commonwealth, or their architecture, and through the maintenance and improvement of settings of such buildings and places and the encouragement of design compatible therewith.

This Bylaw is not intended to conflict with any other Section of this Zoning Bylaw or other Bylaws of the Town of Wellesley. The requirements established herein do not relieve any person from also satisfying any and all applicable Zoning Bylaws or other applicable rules, regulations and laws.

B. Authority

Historic Districts in the Town of Wellesley shall be created and maintained in every respect under and according to the provisions of General Laws of the Commonwealth, Chapter 40C and all amendments thereto, and this Section shall be in every respect controlled by and subject to the provisions of said Chapter 40C of the General Laws and all amendments thereto.

C. Definitions

For the purposes of this Section, the following terms shall be defined as follows:

Altered - includes the words "rebuilt", "reconstructed", "restored", "removed" and "demolished" and the phrase "changed in exterior color".

Building - means a combination of materials forming a shelter for persons, animals or property.

Commission - means the commission acting as the Historic District Commission.

Constructed - includes the words "built", "erected", "installed", "enlarged", and "moved".

Exterior Architectural Feature - means such portion of the exterior of a building or structure as is open to view from a public street, public way, public park or public body of water, including but not limited to the architectural style and general arrangement and setting thereof, the kind, color and texture of exterior building materials, the color of paint or other materials applied to exterior surfaces and the type and style of windows, doors, lights, signs and other appurtenant exterior fixtures.

Structure - means a combination of materials other than a building, including a sign, fence, wall, terrace, walk, or driveway.

D. Applicability

1. The boundaries of the Historic District are shown on a map of the Historic District which is filed with the Town Clerk of the Town of Wellesley and recorded in the Registry of Deeds. The Historic District is indicated on the Zoning Map of the Town of Wellesley.

2. Historic Districts shall be considered as overlapping other zoning districts.

E. Certification

1. Except as this Section may otherwise provide under Section 14D.G., no building or structure within an Historic District shall be constructed or altered in any way that effects exterior architectural features unless the Commission shall first have issued a certificate of appropriateness, a certificate of non-applicability, or a certificate of hardship, with respect to such construction or alteration.

2. Any person who desires to obtain a certificate from the Commission shall file with the Commission an application for a certificate of appropriateness, a certificate of non-applicability or a certificate of hardship, as the case may be, in such form as the Commission may reasonably determine, together with such plans, elevations, specifications, material and other information, including in the case of demolition or removal a statement of the proposed condition and appearance of the property thereafter, as may be reasonably deemed necessary by the Commission to enable it to make a determination on the application.

3. No building permit for construction of a building or structure or for alteration of an exterior architectural feature within an Historic District and no demolition permit for demolition or removal of a building or structure within an Historic District shall be issued by the Zoning Board of Appeals or by the Building Inspector until the certificate required by this Section has been issued by the Commission.

4. If the Commission determines that the construction or alteration for which an application for a certificate of appropriateness has been filed will be appropriate for or compatible with the preservation or protection of the Historic District, the Commission shall cause a certificate of appropriateness to be issued to the applicant. In the case of a disapproval of an application for a certificate of appropriateness, the Commission shall place upon its record the reasons for such determination and shall forthwith cause a notice of its determination, accompanied by a copy of the reasons therefor as set forth in the records of the Commission, to be issued to the applicant, and the Commission may make recommendations to the applicant with respect to appropriateness of design, arrangement, texture, material and similar features. Prior to the issuance of any disapproval, the Commission may notify the applicant of its proposed action accompanied by recommendations of changes in the applicant's proposal which, if made, would make the application acceptable to the Commission. If within fourteen days of the receipt of such notice the applicant files a written modification of his application in conformity with the recommended changes of the Commission, the Commission shall cause a certificate of appropriateness to be issued to the applicant.

5. In case of a determination by the Commission that an application for a certificate of appropriateness or for a certificate of non-applicability does not involve any exterior architectural feature, or involves an exterior architectural feature which is not then subject to review by the Commission in accordance with the provisions of Section 14D.G., the Commission shall cause a certificate of non-applicability to be issued to the applicant.

6. If the construction or alteration for which an application for a certificate of appropriateness has been filed shall be determined to be inappropriate, or in the event of an application for a certificate of hardship, the Commission shall determine whether owing to conditions especially affecting the building or structure involved, but not affecting the Historic District generally, failure to approve an application will involve a substantial hardship, financial or otherwise, to the applicant and whether such application may be approved without substantial detriment to the public welfare and without substantial derogation from the intent and purpose of this Bylaw. If the Commission determines in either such instance that owing to such conditions failure to approve an application will involve substantial hardship to the applicant and approval thereof may be made without such substantial detriment or derogation, or if the Commission fails to make a determination on an application within the time specified in Section 11 of Chapter 40C of the General Laws, the Commission shall cause a certificate of hardship to be issued to the applicant.

7. Each certificate issued by the Commission shall be dated and signed by its chairman, vice-chairman, secretary of such other person designated by the Commission to sign such certificates on its behalf.

8. The Commission shall file with the Town Clerk and with the Building Inspector, Zoning Board of Appeals, and the Planning Board a copy of all certificates and determination of disapproval issued by it.

9. The Commission shall determine promptly, and in all events within fourteen days after the filing of an application for a certificate of appropriateness, a certificate of non-applicability or a certificate of hardship, as the case may be, whether the application involves any exterior architectural features which are subject to approval by the Commission. If the Commission determines that such application involves any such features which are subject to approval by the Commission, the Commission shall hold a public hearing on such application unless such hearing is dispensed with as hereinafter provided. The Commission shall fix a reasonable time for the hearing on any application and shall give public notice of the time, place and purposes thereof at least fourteen days before said hearing in such manner as it may determine, and by mailing, postage prepaid, a copy of said notice to the applicant, to the owners of all adjoining property and other property deemed by the Commission to be materially affected thereby as they appear on the most recent real estate tax list, to the Building Inspector, to the Planning Board of the Town, and to any person filing written request for notice of hearings, such request to be renewed yearly in December, and to such other persons as the Commission shall deem entitled to notice.*

   *See also Section 26.

10. As soon as convenient after such public hearing but in any event within sixty days after the filing of the application, or within such further time as the applicant may allow in writing, the Commission shall make a determination of the application. If the Commission shall fail to make a determination within such period of time the Commission shall thereupon issue a certificate of hardship.

11. A public hearing on an application need not be held if such hearing is waived in writing by all persons entitled to notice thereof. In addition, a public hearing on an application may be waived by the Commission if the Commission determines that the exterior architectural feature involved is so insubstantial in its effect on the Historic District that it may be reviewed by the Commission without public hearing on the application, provided, however, that if the Commission dispenses with a public hearing on an application a notice of the application shall be given to the owners of all adjoining property and other property deemed by the Commission to be materially affected thereby as above provided, and ten days shall elapse after the mailing of such notice before the Commission may act upon such application.

F. Guidelines.

1. In passing upon matters before it the Commission shall consider, among other things, the historic and architectural value and significance of the site, building or structure, the general design arrangement, texture, and material of the features involved, and the relation of such features to similar features of buildings and structures in the surrounding area. In the case of new construction or additions to existing buildings or structures, the Commission shall consider the appropriateness of the size and shape of the building or structure, both in relation to the land area upon which the building or structure is situated and to buildings and structures in the vicinity, and the Commission may in appropriate cases impose dimensional and set-back requirements in addition to those required by other applicable Bylaws. The Commission shall not consider interior arrangements or architectural features not subject to public view.

2. The Commission shall not make any recommendation or requirement except for the purpose of preventing developments incongruous to the historic aspects or the architectural characteristics of the surroundings and of the Historic District.

3. The Commission may after public hearing set forth in such manner as it may determine the various designs of certain appurtenances, such as light fixtures, which will meet the requirements of an Historic District and a roster of certain colors of paint and roofing materials which will meet the requirements of an Historic District, but no such determination shall limit the right of an applicant to present other designs or colors to the Commission for its approval.

G. Exceptions.

1. The authority of the Commission shall not extend to the review of the following categories of buildings or structures or exterior architectural features in the Historic District, and the buildings or structures or exterior architectural features so excluded

may be constructed or altered within the Historic District without review by the Commission:

a. Temporary structures or signs, subject however, to the other applicable sections of this Zoning Bylaw.

b. Terraces, walks, sidewalks and similar structures, or and one or more of them, provided that any such structure is substantially at grade level.

c. One antenna per building, storm doors and windows, screens, window air conditioners, lighting fixtures and similar appurtenances.

d. The color of paint, provided that the paint color does not cause substantial derogation from the intent and purpose of the Bylaw and is in keeping with accepted aesthetic standards.

e. The color or materials used on roofs.

f. Signs of not more than one square foot in area in connection with use of a residence for a customary home occupation, or for professional purposes, provided only one such sign is displayed in connection with each residence and if illuminated is illuminated only indirectly.

g. The reconstruction, substantially similar in exterior design, of a building, structure or exterior architectural feature damaged or destroyed by fire, storm or other disaster, provided that the exterior design is substantially similar to the original and that such reconstruction is begun within one year thereafter and carried forward with due diligence.

2. The Commission may determine from time to time after public hearing that certain categories of exterior architectural features, colors, structures or signs, including without limitation, any of those enumerated under paragraph 1., may be constructed or altered without review by the Commission without causing substantial derogation from the intent and purpose of this Bylaw.

3. Upon request the Commission shall issue a certificate of non-applicability with respect to construction or alteration in any category then not subject to review by the Commission in accordance with the provisions of paragraphs 1. and 2.

H. Ordinary Maintenance, Repairs or Replacement.

Nothing in this Section shall be construed to prevent the ordinary maintenance, repair or replacement of any exterior architectural feature within an Historic District which does not involve a change in design, material, color or the outward appearance thereof, nor to prevent the landscaping with plants, trees or shrubs, nor construed to prevent the meeting of requirements certified by a duly authorized public officer to be necessary for public safety because of an unsafe or dangerous condition, nor construed to prevent any construction or alteration under a permit duly issued prior to the adoption of this Section.

I. Further Review and Rights of Appeal.

Any applicant aggrieved by a determination of the Historic District Commission may within twenty days after the filing of the notice of such determination with the Town Clerk, file a written request with the Commission for a review by a person or person of competence and experience in such matters, designated by the Metropolitan Area Planning Council.

The finding of the person or persons making such review shall be filed with the Town Clerk within forty-five days after the request, and shall be binding on the applicant and the Commission, unless a further appeal is sought in the Superior Court as provided in Section 12A of Chapter 40C of the General Laws.

APPENDIX B – ARCHITECTURAL TERMS

Awning window: A window in which the opening sash is hinged at the top; when the window is open, the bottom of the sash projects out at an angle.

Baluster: One of several small columns or rods that support a railing or balustrade.

Balustrade: A railing with upper and lower rails, balusters, and pedestals.

Casement window: A window with one or more sashes that are hinged on one side so that the sash opens by swinging in or out; the most common type of window in North America until the early eighteenth century.

Character-defining Feature: A prominent or distinctive aspect, quality, or physical component of a property that contributes significantly to its historic character.

Cornice: The projecting moldings forming the top band of an entablature, wall, or other element. The architectural details that decorate a roofline.

Cresting: Decoration in the form of a series of ornate pointed shapes located at the top of a parapet or roof ridge.

Cupola: A small structure projecting above a roof that provides ventilation or is used as a lookout, especially with a hemispherical roof on a circular or polygonal drum.

Dormer: A small structure that projects from a sloping roof with a window in the down slope end; used to light an attic space and to provide headroom; may have a gabled, shed, or other shaped roof.

Double-hung window: A window with two sashes that slide past each other vertically; typically hung with cord, pulley, and counterweights on each side.

Eave: The projection of a roof beyond the wall; most often used to refer to the edge and underside of a roof.

Entablature: In classical architecture, the entire band of horizontal elements above the column capitals; from bottom to top, the entablature is composed of the architrave, frieze, and cornice.

Fanlight: A window in the arched opening over an entry door.

Fascia: A flat, wide, horizontal band on a wall surface, especially the bands of an architrave.

Fenestration: The arrangement of windows in a building façade.

Finial: A pointed ornament typically used at the peak of a roof.

Fixed window: Any type of window held in a frame or sash that does not open.

Flashing: Sheet metal or other flexible material formed to prevent water from entering a building or structure at joints or intersections, such as where a roof intersects a wall or chimney.

Gable roof: A pitched roof with two inclined planes that meet at a peak in the center and terminate at a vertical grade.

Glazing: The clear or translucent material, usually glass, through which light passes into a building.

Mansard: A two-pitched roof with a steep lower slope that rises from all of the formal facades of a building, hipped when used on a detached building.

Low Pressure Wash: A cleaning method using water that does not damage historic material, typically defined as ranging from 100 to 400 psi as registered on cleaning equipment fitted with an adjustable pressure gauge.

Massing: The overall composition of the exterior of the major volumes of a building.

Proportion: The relationship of the size, shape, and location of one building element to all the other elements; each architectural style typically has its own rules of proportion.

Reflective Glazing: Window glass which has been coated on the outside with a transparent metallic coating to reflect a significant fraction of the light and radiant heat which strikes it.

Sash: The part of a window frame that holds the glazing, especially when movable.

Sidelight: A narrow window adjacent to a door or wider window that is the same height as the door or window; most often one of a pair flanking an entrance door.

Turret: A small, projecting tower at the corner of a building, or above the roof; typically circular or octagonal in plan.

Vertical Circulation: Term used to describe any method of moving from one floor to another within a building, may include stairs, elevators, or escalators.

Definitions were provided by the following references:

Dictionary of Building Preservation. Ed. by Ward Bucher. New York: John Wiley & Sons, 1996.

Dictionary of Architecture & Construction. Second Edition. Ed. by Cyril M. Harris. New York: McGraw Hill, 1993.

Weeks, K.D., and Anne E. Grimmer. 1995. *The Secretary of the Interior's Standards for the Treatment of Historic Properties: With Guidelines for Preserving, Rehabilitating, Restoring and Reconstructing Historic Buildings.* Department of the Interior, Washington, D.C.

APPENDIX C – DESIGN RESOURCES

Massachusetts Historical Commission

The Massachusetts Historical Commission is the Commonwealth's State Historic Preservation Office and manages state and federal preservation programs in Massachusetts. Their website provides access to a variety of publications on historic preservation and can be accessed through:

https://www.sec.state.ma.us/mhc/mhcpub/pubidx.htm

Among the publications for local government that are available are:

1. Local Historical Commissions, Summary Sheet for New Commission Members
2. Flow Chart for Establishing a Local Historic District
3. About the On the Road Program
4. Municipal Preservation Plans
5. Establishing Local Historic Districts
6. Preservation Planning Manual: Local Historical Commissions - Their Role in Local Government
7. There's a Difference (National Register Historic District/Local Historic District)

Preservation Massachusetts

Preservation Massachusetts is the statewide non-profit historic preservation organization dedicated to preserving the Commonwealth's historic and cultural heritage. They are an advocacy and education organization working with partners to revitalize communities, historic buildings and landscapes through preservation. They provide advice and technical assistance to communities throughout Massachusetts. Their Preservation Directory lists consultants and firms who specialize in a variety of preservation related fields.

https://www.preservationmass.org

National Park Service
Technical Preservation Services

Technical Preservation Services develops national standards and guidelines for preserving, rehabilitating, restoring, and reconstructing historic properties. They provide tools and information that historic property owners, preservation professional and organizations, and government agencies at all levels need to care for the nation's historic properties. Information provided by Technical Preservation Services, including Preservation Briefs, Preservation Tech Notes, and Preservation by Topic, can be accessed online at:

https://www.nps.gov/tps/about.htm

Secretary of the Interior's Standards

The Secretary of the Interior's Standards for the Treatment of Historic Properties are common sense historic preservation principles in non-technical language. They promote historic preservation best practices that help to protect historic buildings and other resources. The website below provides access to the Standards and to a variety of different Guidelines for their use:

https://www.nps.gov/tps/standards.htm

Preservation Briefs

Preservation Briefs provide information on preserving, rehabilitating, and restoring historic buildings. These NPS publications help historic building owners recognize and resolve common problems prior to work. A list of available Preservation Briefs is provided below and can be accessed online at:

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

1. **Cleaning and Water-Repellent Treatments** for Historic Masonry Buildings
2. **Repointing Mortar Joints** in Historic Masonry Buildings
3. **Improving Energy Efficiency** in Historic Buildings
4. **Roofing** for Historic Buildings
5. The Preservation of Historic **Adobe Buildings**
6. **Dangers of Abrasive Cleaning** to Historic Buildings
7. The Preservation of Historic Glazed Architectural **Terra-Cotta**
8. **Aluminum and Vinyl Siding** on Historic Buildings: The Appropriateness of Substitute Materials for Resurfacing Historic Wood Frame Buildings
9. The Repair of Historic **Wooden Windows**
10. Exterior **Paint Problems** on Historic Woodwork
11. Rehabilitating Historic **Storefronts**
12. The Preservation of Historic Pigmented **Structural Glass**(Vitrolite and Carrara Glass)
13. The Repair and Thermal Upgrading of Historic **Steel Windows**
14. New **Exterior Additions** to Historic Buildings: Preservation Concerns
15. Preservation of Historic **Concrete**
16. The Use of **Substitute Materials** on Historic Building Exteriors
17. **Architectural Character**—Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving their Character
18. Rehabilitating **Interiors** in Historic Buildings—Identifying Character-Defining Elements
19. The Repair and Replacement of Historic **Wooden Shingle Roofs**
20. The Preservation of Historic **Barns**
21. Repairing Historic **Flat Plaster**—Walls and Ceilings
22. The Preservation and Repair of Historic **Stucco**
23. Preserving Historic **Ornamental Plaster**
24. **Heating, Ventilating, and Cooling** Historic Buildings: Problems and Recommended Approaches
25. The Preservation of Historic **Signs**
26. The Preservation and Repair of Historic **Log Buildings**

27. The Maintenance and Repair of Architectural **Cast Iron**
28. **Painting** Historic Interiors
29. The Repair, Replacement, and Maintenance of Historic **Slate Roofs**
30. The Preservation and Repair of Historic **Clay Tile Roofs**
31. **Mothballing** Historic Buildings
32. Making Historic Properties **Accessible**
33. The Preservation and Repair of Historic **Stained and Leaded Glass**
34. Applied Decoration for Historic Interiors: Preserving Historic **Composition Ornament**
35. Understanding Old Buildings: The Process of **Architectural Investigation**
36. Protecting **Cultural Landscapes**: Planning, Treatment and Management of Historic Landscapes
37. Appropriate Methods of Reducing **Lead-Paint Hazards** in Historic Housing
38. **Removing Graffiti** from Historic Masonry
39. Holding the Line: **Controlling Unwanted Moisture** in Historic Buildings
40. Preserving Historic **Ceramic Tile Floors**
41. The **Seismic Rehabilitation** of Historic Buildings
42. The Maintenance, Repair and Replacement of Historic **Cast Stone**
43. The Preparation and Use of Historic **Structure Reports**
44. The Use of **Awnings** on Historic Buildings: Repair, Replacement and New Design
45. Preserving Historic **Wooden Porches**
46. The Preservation and Reuse of Historic **Gas Stations**
47. **Maintaining the Exterior** of Small and Medium Size Historic Buildings
48. **Preserving Grave Markers** in Historic Cemeteries
49. **Historic Decorative Metal Ceilings and Walls:** Use, Repair, and Replacement
50. **Lightning Protection** for Historic Buildings

Preservation Tech Notes

Preservation Tech Notes provide practical information on traditional practices and innovative techniques for successfully maintaining and preserving cultural resources. A list of available Preservation Tech Notes is provided below and can be accessed online at:

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

Doors

1. Historic **Garage and Carriage Doors**: Rehabilitation Solutions. Bonnie Halda, AIA. 1989.

Exterior Woodwork

1. Proper **Painting and Surface Preparation**. Sharon Park, AIA. 1986.
2. Paint Removal from **Wood Siding**. Alan O'Bright. 1986.
3. **Log Crown Repair** and Selective Replacement Using Epoxy and Fiberglass Reinforcing Bars. Harrison Goodall. 1989.
4. Protecting Woodwork Against Decay Using **Borate Preservatives**. Ron Sheetz and Charles Fisher. 1993.

Finishes

1. **Process-Painting Decals** as a Substitute for Hand-Stencilled Ceiling Medallions. Sharon Park, FAIA. 1990.

Historic Glass

1. Repair and Reproduction of **Prismatic Glass Transoms**. Chad Randl. 2002.
2. Repair and Rehabilitation of Historic **Sidewalk Vault Lights**. Cas Stachelberg and Chad Randl. 2003.

Historic Interior Spaces

1. Preserving Historic **Corridors in Open Office Plans**. Christina Henry. 1985.
2. Preserving Historic **Office Building Corridors**. Thomas Keohan. 1989.
3. Preserving Historic **Corridor Doors and Glazing** in High-Rise Buildings. Chad Randl. 2001.

Masonry

1. **Substitute Materials**: Replacing Deteriorated Serpentine Stone with Pre-Cast Concrete. Robert M. Powers. 1988.
2. Stabilization and Repair of a Historic **Terra Cotta Cornice**. Jeffrey Levine and Donna Harris. 1991.
3. Water Soak **Cleaning of Limestone**. Robert M. Powers. 1992.
4. Non-destructive **Evaluation Techniques** for Masonry Construction. Marilyn E. Kaplan, Marie Ennis and Edmund P. Meade. 1997.

Mechanical Systems

1. Replicating Historic **Elevator Enclosures**. Marilyn Kaplan, AIA. 1989.

Metals

1. Conserving **Outdoor Bronze Sculpture**. Dennis Montagna. 1989.
2. Restoring **Metal Roof Cornices**. Richard Pieper. 1990.
3. In-kind Replacement of Historic **Stamped-Metal Exterior Siding**. Rebecca A. Shiffer. 1991.
4. Rehabilitating a Historic **Iron Bridge**. Joseph P. Saldibar, III. 1997.
5. Rehabilitating a Historic **Truss Bridge** Using a Fiber-Reinforced Plastic Deck. Chad Randl. 2003.
6. Repair and Reproduction of **Metal Canopies and Marquees** with Glass Pendants. Lauren Van Damme and Charles E. Fisher. 2006.

Museum Collections

1. **Museum Collection Storage** in a Historic Building Using a Prefabricated Structure. Don Cumberland, Jr. 1985.
2. Reducing Visible and **Ultraviolet Light Damage** to Interior Wood Finishes. Ron Sheetz and Charles Fisher. 1990.

Site

1. **Restoring Vine Coverage** to Historic Buildings. Karen Day. 1991.

Temporary Protection

1. Temporary Protection of Historic **Stairways**. Charles Fisher. 1985.

2. Specifying Temporary Protection of Historic **Interiors During Construction** and Repair. Dale H. Frens. 1993.
3. Protecting A **Historic Structure** during Adjacent Construction. Chad Randl. 2001.

Windows

Please note that 1–9 are available only in the NPS publication *The Window Handbook: Successful Strategies for Rehabilitating Windows in Historic Buildings,* which can be purchased through the Historic Preservation Education Foundation.

1. Planning Approaches to **Window Preservation**. Charles Fisher. 1984.
2. Installing Insulating Glass in Existing **Steel Windows**. Charles Fisher. 1984.
3. Exterior Storm Windows: **Casement Design Wooden Storm Sash**. Wayne Trissler and Charles Fisher. 1984.
4. Replacement **Wooden Frames and Sash**. William Feist. 1984.
5. Interior **Metal Storm Windows**. Laura Muckenfuss and Charles Fisher. 1984.
6. Replacement Wooden Sash and Frames With **Insulating Glass and Integral Muntins**. Charles Parrott. 1984.
7. **Window Awnings**. Laura Muckenfuss and Charles Fisher. 1984.
8. **Thermal Retrofit** of Historic Wooden Sash Using Interior Piggyback Storm Panels. Sharon Park, AIA. 1984.
9. Interior Storm Windows: **Magnetic Seal**. Charles Fisher. 1984.
10. **Temporary Window Vents** in Unoccupied Historic Buildings. Charles Fisher and Thomas Vitanza. 1985.
11. **Installing Insulating Glass** in Existing Wooden Sash Incorporating the Historic Glass. Charles Fisher. 1985.
12. Aluminum **Replacements for Steel Industrial Sash**. Charles E. Fisher. 1986.
13. Aluminum Replacement Windows with **Sealed Insulating Glass and Trapezoidal Muntin Grids**. Charles Parrott. 1985.
14. Reinforcing **Deteriorated Wooden Windows**. Paul Stumes, P.Eng 1986.
15. **Interior Storms** for Steel Casement Windows. Charles E. Fisher and Christina Henry. 1986.
16. Repairing and Upgrading **Multi-Light Wooden Mill Windows**. Christopher W. Closs. 1986.
17. Repair and Retrofitting **Industrial Steel Windows**. Robert M. Powers. 1989.
18. **Aluminum Replacement Windows** With True Divided Lights, Interior Piggyback Storm Panels, and Exposed Historic Wooden Frames. Charles Parrott. 1991
19. Repairing **Steel Casement Windows**. Chad Randl. 2002.
20. **Aluminum Replacement Windows for Steel Projecting Units** with True Divided Lights and Matching Profiles. Chad Randl. 2003.
21. **Replacement Wood Sash** Utilizing True Divided Lights and an Interior Piggyback Energy Panel. Charles E. Fisher. 2008.
22. Maintenance and Repair of Historic **Aluminum Windows**. Kaaren R. Staveteig. 2008

Preservation by Topic

Technical Preservation Services has complied an index of preservation resources by topic to assist users in finding online and printed information that has been developed on the subject of historic preservation, cultural landscapes, and the rehabilitation of historic buildings. The index is arranged alphabetically and topics are cross referenced where appropriate. It includes listings of Preservation Briefs, Preservation Tech Notes, and ITC Bulletins (which are not generally available elsewhere). Preservation by Topic may be accessed online at:

https://www.nps.gov/tps/how-to-preserve/by-topic.htm

Lead Paint Resources

The US Environmental Protection Agency offers a full range of information and easy-to-use guides associated with the identification, safety concerns, and rules associated with lead paint. The following website provides access to publications for home owners, contractors, and others.

1. EPA Website on Lead Paint
   https://www.epa.gov/lead
2. The Lead-Safe Certified Guide to Renovate Right
   https://pueblo.gpo.gov/Publications/PuebloPubs.php?PubID=1348