Design Guidelines

Main Street New Jersey

A Program of the New Jersey Department of Community Affairs

Design Guidelines

A Handbook for the Preservation and Improvement of New Jersey's Historic Commercial Architecture

Main Street
NEW JERSEY

A Program of the New Jersey Department of Community Affairs
Office of Smart Growth

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This manual is intended to provide generalized historical, architectural, and preservation guidelines for any community in New Jersey, and to be used as a template for development of community-specific handbooks by individual Main Street communities. This manual was prepared by Margaret Westfield, Historic Architect, for **Main Street New Jersey**.

The following local community adaptations are suggested:

❖

Add a historic local image on the cover and title page with the community's name beneath both images.

❖

Add a section describing the historic development of the community's downtown commercial district. Include maps and historic photographs where appropriate.

❖

Add a section documenting the predominant architectural styles of the district.

❖

Enhance with photographs portraying local examples.

❖

Include a section of sketches suggesting potential improvements to local buildings.

❖

Edit the Glossary with photographic examples culled from local buildings.

❖

Include appropriate local resources in the Glossary.

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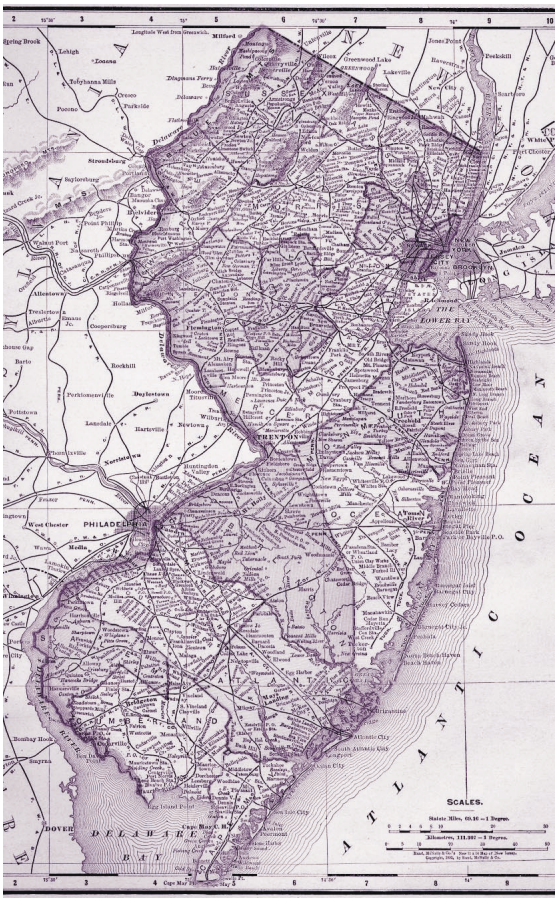
Purpose

The architecture of New Jersey has varied widely over the more than three centuries since settlers first came to the colony. These buildings represent the history of New Jersey from colony to state.

It is this wealth of history contained in the architecture that should be preserved. Familiar buildings, especially within a traditional commercial district, create a continuity of place for the inhabitants of that town as well as frequent visitors. A community's identity is often expressed in the buildings of its downtown areas.



Preservation of a community's architectural heritage, therefore, is a preservation of its identity. In addition, preservation provides tangible benefits. Rejuvenating downtown areas brings economic viability back to the towns. When the commercial centers are made attractive and easy to navigate without vacant buildings or lots, they become more inviting to community members for shopping, eating, and other activities. Rehabilitation of existing buildings can often be less expensive than new construction, while creating more jobs in the community. Rehabilitation instead of demolition also has the environmental benefit of the reduction of waste in landfills.

This handbook has been prepared to assist property owners and residents throughout New Jersey's Main Street designated communities in maintaining and improving the exteriors of their buildings. The first section is an historical overview of the development of commercial architecture and its stylistic influences to provide a basic understanding of the historic built environment.

The rehabilitation design guidelines that follow suggest design criteria for replacement of architectural elements and new construction. Design guidelines are already used in residential historic districts around the state and country to preserve the character of different areas. The guidelines assist owners and architects to make appropriate design decisions. On Main Street, they can be used to guide new construction within an existing Main Street setting, guide alterations to existing commercial facades, and guide owners in making minor repairs and doing regular maintenance on their buildings. Design guidelines have made a significant contribution to the preservation of New Jersey's residential historic resources; the purpose of these model guidelines

is to extend that success to some of the state's most vulnerable historic resources—Main Street's commercial buildings.

The last section is a sample maintenance program to provide a strategy for preservation of existing buildings of any age or use. This cyclical program presents the methodology for identifying and addressing maintenance issues before they become major repairs.

Appended to this document are three sources of additional information. A glossary of architectural terms defines common building elements and stylistic terms to assist in understanding the facades of Main Street. A listing of state, regional, and national organizations provides contacts for further assistance. Finally, a bibliography lists printed material available to assist building owners and users with further research.

The Historical Evolution of Commercial Architecture

As we look at New Jersey's downtowns, we are confronted with an assemblage of commercial buildings that have evolved over a long period of time. Depending on the age of the town's settlement, we may see buildings dating from three distinct centuries of architectural styles and technological advances co-existing along a single streetscape. And each of these buildings has evolved over time, reflecting changing stylistic tastes, material upgrades, and varying shopowner's needs. Yet together, all of these buildings create the architectural image and the distinct character that creates each community's identity and sense of place.

Commercial buildings come in all different shapes and sizes—gas stations, banks, office towers, shopping malls, and strip stores all bring to mind various images of commercial architecture. However, this history will focus on the storefronts of New Jersey's Main Streets—specifically concentrating on the building type that Richard Longstreth, in his book *The Buildings of Main Street*, calls the "two-part commercial block." These are the buildings that are usually three stories in height (give or take a story) and typically accommodate a retail use on the first floor and residential use above. (Sometimes the upper floors are used for offices instead, but the upper façade still maintains a "residential" appearance.)

The storefront historically provided six different functions for the internal retail use—structure, enclosure, entry, display, identity, and lighting. As we investigate the four basic components of the typical storefront, we can see how these needs were addressed.

Beginning at the top, the first component of the traditional storefront is its entablature. Also called the storefront cornice, the entablature marked the transition from the storefront to the upper facade. It visually receives the upper wall material. More importantly, the entablature provides the designed place for signage—identity—for the retail establishment, and a level of stylistic decoration through its molded cornice.

Below the entablature most storefronts have transom windows. These windows allowed natural light to enter the interior. Before the advent of gas and electric lighting, the transom's illumination was critical to the conduction of commercial trade. Improvement in the

quality of the light provided by the transoms was made by incorporating prism glass panes with horizontal lines of “prisms” on the interior surface to diffuse the light.

The display windows, often flanking a recessed entry door, were the most prominent feature of the enclosure that created the storefront. They were aided in their purpose by the bulkheads below them, that raised the floor of the display area to a more-appropriate height. The bulkheads were often decoratively paneled for visual interest. However, their primary purpose was to protect the display windows from the impact damage that might occur if they were carried to the ground.

Threaded through the entire composition is the structure that establishes the storefront’s articulation while carrying the weight of the upper facade. In the earliest storefront systems, this structure was composed of either stone or wood. With stone construction, the storefronts reflected the post-and-beam system that had persisted for centuries, where the size of the storefront window (or door) bay reflected the limited span of the stone lintel above. With nineteenth-century wood construction, a timber could efficiently span about twenty-two feet. This dimension, with a masonry-bearing wall on either side, is reflected by the typical commercial lot sizes throughout downtown districts.

By the mid-19th century, the availability of cast iron elements had a major impact on storefront design. The use of slender cast-iron columns allowed larger display windows, while cast-iron beams replaced the earlier stone and wood spans. Cast iron also offered tremendous decorative opportunities, since the molten metal could be poured into forms that were detailed for architectural expression as well as structural functionality. In larger cities, it was not uncommon for the entire facade of mid-to-late 19th century commercial buildings to be executed in cast iron. Because cast iron had to be painted, its decorative nature promoted the use of intricate paint schemes in bold Victorian colors.

Subsequently, steel beams gained favor for horizontal structural spans due to their superior strength. They could span great distances with limited deflection, providing storefronts beneath that were clear of vertical supports. This allowed the glass of the display windows to be uninterrupted, even at the corners of the recessed entries. Concurrently, veneers became popular for storefront coverings. Perhaps the most popular of these veneers was structural

glass-tinted, self-supporting panels of glass known by the trade names of Carrara glass or Vitrolite – that was at its zenith of popularity in the 1930s.

Also affecting the architectural evolution of the storefront were changing tastes in architectural styles over the past two hundred years. Those styles are described in the next section.

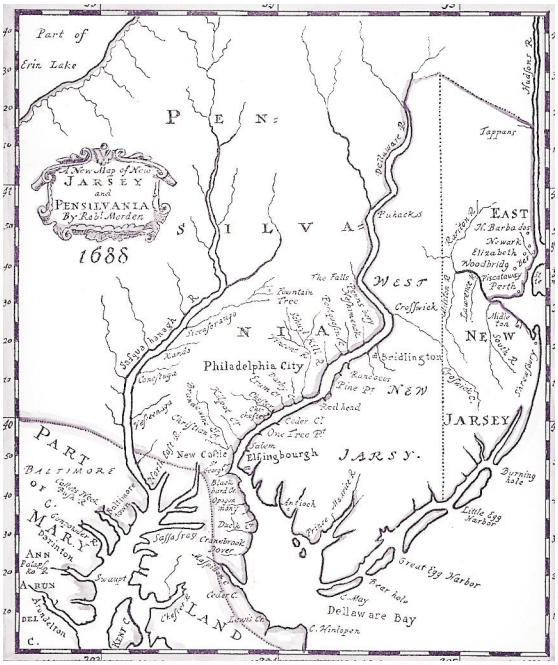
Each architectural style was expressed on commercial buildings through the use of materials and design motifs. The styles also reflected technological advances of the period. For example, the size and number of window panes changed throughout the nineteenth century in response to the glass-making industry's growing ability to produce and ship larger panes of glass. In the earliest architectural styles, you will find multiple panes of glass—as many as 24 per window in Georgian architecture and 12 commonly in Federal. By the Greek Revival period, an eight-pane configuration (four-over-four) was typical, and during the Victorian era the glass size systematically increased to the single-light plate glass panes that now characterize most storefront display windows.

A sensitive rehabilitation will be based on a basic understanding of the evolution of the storefront and the influence of the architectural style on it.

Predominant Architectural Styles and Their Defining Characteristics

(Taken, in part, from *Identifying American Architecture,* John J.-G. Blumenson, 2nd ed. Nashville: American Association for State and Local History, 1981.)

The architectural styles discussed here do not represent the full spectrum, but rather those more commonly used for commercial buildings. The majority of the commercial structures on New Jersey's Main Streets date to the nineteenth and twentieth centuries.



17th Century

During the early years of the settlement of New Jersey, colonists brought with them the architectural models that were most familiar to them—those from their homelands. Surrounding themselves with familiar building forms made them feel more comfortable in their new land. Thus, since New Jersey was settled by mostly Dutch, Germans, and English during the 17th century, the architecture of this time was based on the vernacular Medieval building techniques the early settlers left behind, adapted to the available materials and climate of their new homeland.

Materials had to be readily available on site for most builders so wood from the local forests was a prevalent material for the structural components as well as for roofing and siding. It was understood that non-combustible materials should be used for chimneys, so brick, manufactured close to the site, was generally used. Glass was not available in large sizes at this time so windows were small in size with small panes.

Colonial

Buildings in most of New Jersey during this century were characterized by large centrally located chimneys. This allowed the heat from the chimney to remain inside the building and provide additional warmth. The roofs were generally gabled and covered in riven or hand-split wooden shingles. The eaves did not project far from the walls. The exterior of the buildings were clad in unpainted clapboards with the edges trimmed with corner posts. Doors were primarily vertical board and batten, a very simple style to make, and windows were generally of the casement variety with small panes. Some more elaborate buildings included pendant decoration. Larger buildings might have the second floor project farther out from the first floor creating an overhang known as a jetty.

1700 – Revolutionary War

The English colonies became more prosperous as the 18th century wore on. The influx of additional settlers from England brought more of the fashionable building styles that were popular there. The increased wealth enabled many to afford grander homes in a higher style than the previous century. Cities were established, which led to the beginning of commercial centers. Cities like Philadelphia, remembering the Great London Fire of 1666, began building entirely in brick, creating a solid, more permanent feel for the city.

Colonial

The building forms of the 17th century continued to be used into the 18th century, especially in rural areas that were not as affected by the influx of new ideas and fashions from new settlers.

Georgian

Highstyle Georgian buildings are more formally arranged than their colonial predecessors. Symmetry and classical details such as urns on pedestals and fluted columns were employed on the exterior, especially the primary facade. The exterior often has a coursed ashlar finish or a simulated ashlar finish to emulate stone over wooden cladding. Heavy quoins terminate the corners. A heavy modillioned cornice is generally used at the eaves. The front facade often contains a pedimented projecting pavilion with large pilasters or columns and a Palladian or Venetian window. Windows are more commonly of the sliding sash type with 6 to 20 lights per sash rather than the diamond-pane casement type used when glass was more rare and more expensive. Above the windows there is often found a flat arch with pronounced keystone. The doors are generally paneled. The front door may have a transom light, side lights, or both, along with pilasters and/or columns. Often pedimented dormers are included to bring light to the attic spaces and the roof may be terminated with a balustrade.

Many vernacular buildings during the 18th century combine a few elements of the Georgian style with elements of the Colonial style.

1780s – 1820

After the Revolutionary War, there was not a complete break with English style, as might be expected. The style of the Robert Adam, based on that of Palladio, was adopted, but in the new United States it was termed Federal, reflecting its place as the style of the new country.

Federal

This style is more austere on the exterior than the previous Georgian Style. The general feeling is much lighter with larger areas of glass with thin muntins, more attenuated columns, and thinner corner boards. The facades are smoother and roofs are low pitched. Geometric forms were popular as they were in England. Polygonal or bowed bays indicate the interior geometric forms on the outside. Entrances are accented with elliptical fan lights and flanking slender side lights. Tripartite windows are often framed in recessed arches. Although the general look is more austere, swags and garlands often adorn the frieze below the cornice.

1820 – Civil War

In the early 19th century, the cities of Herculanium and Pompeii were discovered. This began a fascination with Greek and, subsequently, Roman architecture and art. This fascination was expressed through the Greek Revival and Italianate styles. The Gothic Revival style highlighted a backlash against that trend.

Greek Revival

This style is an adaptation of the classic Greek temple front using details from either the Doric, Ionic, or Corinthian order. The columns often support a full entablature and a low pitch pediment that is commonly associated with this style. (However, many Greek Revival houses were built without this temple front.) Roofs are low-pitch gables or hips. A rectangular transom over the door was popular and often was broken by two engaged piers flanked by side lights that surround the door. Shouldered architrave trim was widely used for doors and windows. Upper floor lighting was often incorporated ingeniously

into the enlarged frieze of the entablature. Window muntins were thin like those used during the Federal period, but their interior shape was more pointed, with a profile similar to the bottom of a corn.

Gothic Revival

A widely used style for many different building types, characteristics of this style include steeply pitched roofs, wall dormers, polygonal chimney pots, hood molds over the windows and curvilinear gingerbread trim along the eaves and gable edges. The standard for windows in this style varies, but the pointed arch is often characteristic.

Italianate

Buildings of this style are rectangular with two or three-stories. The hip roof is generally low-pitched with a cupola on top. The wide eaves are usually supported by oversized brackets. As with the brackets, other details such as the string courses and rusticated quoins are very pronounced. This style can also have a central one-bay porch or long front porches. In urban and commercial buildings, common characteristics of the Italianate style include tall, narrow, four-over-four or two-over-two window sash, segmentally-arched window heads, elaborate window and door hoods, and cornices with oversize and sometimes paired brackets. The popularity of the Italiante style continued during the years afte the Civil War

1865 – 1880

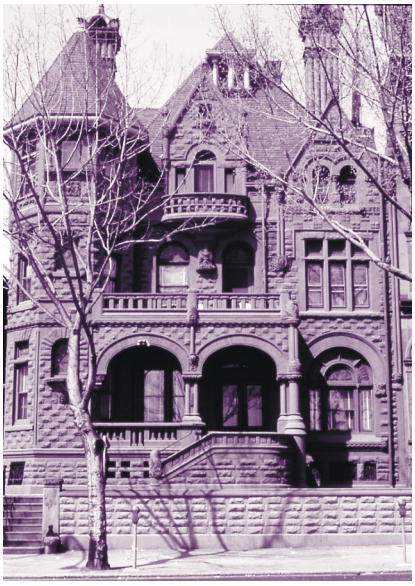
After the Civil War, the trend toward multiple architectural styles proliferated. This trend was influenced by the rapidly expanding spheres of philosophy that flourished in the new industrial age.

Second Empire

Like the Italianate style, the Second Empire style building is usually a two- or three-story symmetrical square block. A projecting central pavilion often extended above the rest of the building. The mansard roof of this style is its distinguishing feature. This roof is often covered with multi-colored slates or tinplates. This style is characterized by deep, dramatic moldings and details with different textures and colored materials. The windows are usually arched and pedimented, sometimes in pairs, with similarly dramatic molded surrounds. First floor windows are much taller than the other windows in the building. Entrance doors are often arched and paired like the windows.

Victorian Gothic

This style is characterized by polychromatic exterior finishes where materials of different colors and textures are juxtaposed. These materials create decorative bands which highlight corners, arches, and arcades. Other decorative elements include pressed bricks, terra cotta tile, and incised foliated and geometric patterns. The Gothic (pointed arch) windows and doors which typically characterized the Gothic Revival style are used as well as straight-headed openings. In contrast to the “gingerbread” trim of the Gothic Revival style, the eave trim on Victorian Gothic buildings is massive and strong.



Victorian Romanesque

While generally similar to the Victorian Gothic, this style is distinguished by the use of the semi-circular arch. In masonry buildings, these round arches are often supported by short polished stone columns.

Stick Style

This building style is generally asymmetrical in composition and is characterized by “stick work” from which it derives its name. This “stick work” is reminiscent of the half-timbering of Medieval English architecture, but serves a purely decorative purpose in the mid 19th century. This style is composed of a picturesque assemblage of steeply pitched gable roofs, cross gables, towers, and pointed dormers. Large verandas and porches are also often incorporated. Contrasting with the decorative pattern of vertical, horizontal, and diagonal “sticks” are oversized structural corner posts, roof rafters, purlins, brackets, porch posts, and railings which remain unornamented.

1880 – 1900

The height of the Victorian period and the colorful, intricately-detailed styles that characterize it, the years 1880-1900 reflected the tastes and excesses of the ending nineteenth century. Yet “Victorian” is not in itself a style, but a time period reflecting the reign of Queen Victoria from 1837–1901.

Shingle Style

Buildings of this style are characterized by their use of decorative wood shingles, usually covering the entire building from the roof to the foundation. The eaves of the roof do not project far from the building so as to retain the homogeneous look of the shingle cladding. The roof may project to provide a covering for porches. This also emphasizes the homogeneity of the exterior, as the porch roofs appear to be part of the whole. Windows in these buildings may be either of the casement or sash variety. They tend to be small so as not to distract from the shingles and are often grouped into bands of two or three which lends to the horizontal nature of this style. The ornamentation of a shingle style building varied, sometimes using elements of the emerging Colonial Revival style and sometimes using elements from one or another of the styles that are collectively referred to as “Victorian.”

Queen Anne Style

Queen Anne style buildings can be identified by their rich decoration, which consists of a variety of forms, textures, materials, and colors. The picturesque nature created by the decoration is heightened by the towers, turrets, tall chimneys, projecting pavilions, porches, bays, and encircling verandas, which are arranged into an asymmetrical composition. Occasionally, colored glass panels are incorporated into the windows to complement the textured wall surfaces.

Beaux Arts

Enriched with an abundance of detail and a variety of stone finishes, Beaux Arts buildings are rather grandiose in their compositions. Projecting facades and pavilions that are often found on these buildings can be embellished with over-sized, often paired, columns, enriched moldings, and free-standing statuary. Windows can be ornamented with free-standing columns and balustraded sills with pedimented entablatures on top.

1900 – 1920

While the early architecture of the twentieth century continued to reflect some of the massing and details of the later styles of the Victorian period, new styles of greater formality and classical influences emerged. In part a reaction to the excessiveness of the previous decades, the new styles represented a dramatic change in architectural expression.

Beaux Arts

The highly enriched Beaux-Arts style continued into the beginning of the 20th century, especially for important public buildings and financial institutions.

Colonial Revival

The Colonial Revival style grew out of the rebirth of interest in the Colonial period and, in particular, early English and Dutch houses in the original colonies. Influences included the Georgian and Federal styles, as well as post medieval English and Dutch Colonial prototypes. Elements from these styles were often mixed, but some identifying features include a symmetrical façade with a hipped or gabled roof, an

accentuated front door or a porch (entry or one- or two-story full-width), double-hung sash, often with multi-pane glazing and sometimes in pairs.

Neo-Classicism & Renaissance Revival

Neo-classicism, as its name implies, is inspired by the Greek and the Roman architectural orders. Following the example of Greek and Roman temple architecture, this style is characterized by monumental buildings arranged symmetrically on their site and often clad in a smooth or polished stone. Details of the buildings tend to be simplified since the use of the Greek Orders are more common. Thus there are almost never any arches, enriched moldings, or statuary. The front facade may be highlighted by an over-sized, pedimented portico with a series of colossal pilasters. Windows often have large, single-light sash.

Details on Renaissance Revival buildings include pedimented windows, paired arched doors, quoins and belt courses.

Terra-Cotta Commercial Style

Originating in Chicago, these buildings are typically of steel frame construction and use terra cotta for decorative ornament and for roof and floor tiles.

1920 – WWII

While the world was in the turmoil induced by wars and America's Great Depression, architectural expression continued to evolve. Historicism and classical formality were largely abandoned and completely new styles emerged.

Art Deco

Geometry and stylized decoration are the hallmarks of the Art Deco style. Verticality is emphasized by a series of set backs as well as horizontal bands of windows with decorated spandrels. Ornamentation is crisp and of low relief. It is usually found around the door and window openings, on string courses, and along the roof edges or parapet. This ornament is either executed in the same material as the building or in various metals, colored glazed bricks, or mosaic tiles. Windows are generally metal sash or casement with straight heads. Some circular windows or rounded window or door jambs can be found.

Art Moderne

A streamlined look is created in the Art Moderne style by soft or rounded corners, flat roofs, smooth wall finishes without surface ornamentation and horizontal bands of windows. Curved window glass that wraps round corners enhances the streamlined effect. Doors are of metal or wood and can be decorated with circular windows, large panels of glass, or patterns with circular and angular outlines. Adding to the machine age look of the style, door and window trim, railings, and balusters are often made of aluminum or stainless steel. Additional decoration for this style are other modern materials such as mirrored panels, concrete panels and, occasionally, metal panels with low relief decoration around doorways and windows.

The Secretary of the Interior's *"Standards for Rehabilitation"*

The Secretary of the U.S. Department of the Interior, in response to federal legislation providing financial incentives to stimulate the revitalization of historic communities, developed a series of recommendations for the rehabilitation of older structures. These standards are now commonly used at all governmental levels to determine the appropriateness of proposed work on historic buildings and provide a sound guide for all sensitive rehabilitation.

The Standards (Department of Interior Regulations, 36 CFR 67) pertain to historic buildings of all materials, construction types, sizes, and occupancy and encompass the exterior and the interior, related landscape features and the building's site and environment as well as attached, adjacent, or related new construction. The Standards, printed verbatim below, are the foundation for the design guidelines in the following sections. The Standards should be applied to specific rehabilitation projects in a reasonable manner, taking into consideration economic and technical feasibility.

Standards from the Secretary of the Interior's Standards for the Treatment of Historic Properties 1995

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

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

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

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

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

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

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

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

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

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

Design Guidelines for Rehabilitation and New Construction

Through a conscientious maintenance program, a building's historic fabric can be kept intact for years in the future. However, many property owners face the challenges of insensitive alterations from the past and necessary improvements for the present. These challenges are not insurmountable; buildings can be successfully restored; and, new and old construction can compatibly coexist. The goal in rehabilitation is to preserve the character of the building while addressing its problems. When undertaking any project, the owner should consider how it will affect the distinctive features of the building and whether the change will improve the utility of the building. For new construction, respect for the existing character of the street is essential to preserving it when introducing a major new element in the streetscape.

When undertaking either rehabilitation or new construction along Main Street, respect for the character of the streetscapes and individual buildings should not be confused with architectural themes, such as making all buildings look "Colonial" or "Victorian." These themes create a false sense of history and visual boredom. The street's history should be revealed through its buildings' character and the area will be a visually stimulating and architecturally interesting environment. Sometimes property owners have difficulty visualizing their building's architectural potentials and, as a result, are hesitant to undertake improvement projects. Main Street New Jersey offers architectural services to assist applicants in planning façade improvements. These architectural services include renderings, color selections, awning fabric swatches, a project report outlining the recommended scope of work and estimated costs, and technical information. To receive this help, property owners must make a good-faith commitment to follow through by completing an application form, viewing a Main Street slide show, proposing a project budget, and committing to improvements within a specific period of time.

For more information about this program, please contact Main Street New Jersey at (609) 633-9769.

Relation of Buildings to their Surroundings

On a Main Street filled with traditional buildings and storefronts, a new structure can easily result in a loss of visual continuity and cohesiveness. New buildings must be designed to fit into the context of their site. A registered architect familiar with the intricacies of historic and infill building design should be consulted, and the following design factors considered:

Massing
The three-dimensional form of a building and its roof shapes should be similar to those of other buildings in the area.

Siting
The new building should have the same relative placement on the lot as the older structures and the setback distance from the street should be equal.

Height
The building should be within a few feet in height of the neighboring structures. The height of the neighboring cornice lines, window heads and sills, and first floor elevation above the ground should all be carried through.

Proportion
The building's proportions of height to width of the façade and its components should be consistent with adjacent buildings.

Rhythm

Buildings along a streetscape create a rhythm in their placement and the location of their entries. Furthermore, each façade has a rhythm created by solid walls punctuated with windows and doors. New construction should respect the established rhythms.

Materials

The appeal of older buildings is often in their use of quality materials and detailing. New construction should continue the use of established neighborhood materials.

Scale

The standard size and shape of most building elements are generally known: an existing doorway is known to be about 3 feet wide by about 7 feet tall; a typical brick is about 2½" tall by 8" long. A new building with a 10 foot tall door or 8" by 16" blocks would be out of scale with the other buildings. It is also important to maintain other comparable elements, such as floor-to-floor heights and cornice lines.

By responding to the design characteristics of the existing environment, new construction can further enhance the architectural integrity and diversity of Main Street.

Rehabilitation

Rehabilitation of existing buildings may affect any element of the exterior envelope. Exterior cladding is designed to protect (or provide) the structure of the building's walls. With the roof, it establishes the building envelope. This enclosure must be kept intact to prevent the structure's progressive deterioration. Identified below are common elements and materials. The Secretary of the Interior publishes guidelines for applying the *Standards* for preservation projects to individual elements, which are summarized below, together with additional recommendations and information.

Roofs

Common roof types found on Main Street might include gable, shed, mansard or flat roofs. Common materials for roofing range from standing seam metal to slate to bituminous or rubber membranes. The existing roof shape should not be altered. When possible, deteriorated roofing materials should be patched with new material that matches the old as closely as possible. When it is necessary to replace a roof, the architectural features that give the roof its character should be preserved or replaced in kind if not salvageable. These features might include the cornice, brackets, the roof materials (slate, metal), dormer windows, chimneys, cupola, cresting, or weather vanes. Owners should avoid installing roof materials that are inappropriate to the style and period of the building, such as using asphalt shingles on a nineteenth-century building for replacement or non-matching materials for repairs. In addition, the defining architectural features should not be removed or covered over with inappropriate materials such as vinyl or aluminum. Finally, any mechanical or service equipment installed on the roof should be installed so that it is not visible from the street if possible.

Gutters and Downspouts

Gutter and downspout systems provide a path for water to flow from the roof to the ground without damaging or penetrating the building. Systems found on commercial buildings may include pole gutters, box gutters, hang gutters, or through-wall scuppers. Gutters are usually designed according to the type of roof on a building and should be repaired, maintained, or replaced in-kind rather than replaced with another type of gutter. The replacement of pole or box gutters with hang gutters is historically inappropriate and usually visually intrusive, hiding the cornice, which is often one of the most architecturally significant features on commercial buildings. Repairs should be made with the same material as the original, as galvanic action can occur between dissimilar metals, causing corrosion.

Flashing

Flashing on commercial buildings is typically metal. It is found at intersections of roof planes and around penetrations to divert water toward the gutters. Leaks in a roof, particularly slate, may sometimes be due to the failure of the flashing rather than the roofing material itself. Like gutters, flashing can be repaired with patches of similar metal and entire strips of flashing can be replaced in-kind without impact on the integrity of the historic fabric.

Cornices and Trim

The decorative details applied to buildings, including cornices, brackets, pilasters, balustrades, cornerboards, turned work, terra-cotta panels, window and door casings, and shutters help to indicate a building's style and period. On commercial buildings it is more common to see these elements executed in brick,

stone, terra-cotta, cast iron, or sheet metal, than one would see on a house. As on a house, though, these elements can also be executed in wood. This variety of materials makes each building in the streetscape unique. These elements should be retained and repaired or, if necessary, replaced in-kind. It is sometimes possible to find substitute materials that are compatible with the original material when the original is no longer available or is prohibitively expensive. Substitute materials should be similar to the original in composition, size, shape, texture, and color.

Masonry

Brick walls are historically a remarkably durable exterior cladding material requiring only periodic inspection and maintenance. Often, perceived moisture penetration of a brick wall is really a roof or gutter leak. The brick and mortar should be retained without the application of surface treatment. Only mortar joints with evidence of moisture problems or where sufficient mortar is missing to allow water to stand in the joints should be repointed. The new mortar should match the old in composition, color, texture, hardness, and workmanship.

Buildings built before World War II will typically have both softer bricks and softer mortar than are used in modern construction. The use of a modern, hard Portland cement mortar can damage older, softer brick as the two elements expand from thermal expansion. The pointing should be slightly recessed from the face of the brick for the same reason.

Many building owners unknowingly overreact to moisture problems and sometimes exacerbate them by applying paint, stucco, or a water repellent coating or sealant to brick. These remedies can often create further problems by trapping moisture in the brick that may later freeze and expand causing the brickface to pop off.

The newly exposed softer inside of the brick is more absorbent than the harder face, exacerbating the moisture problem. If inspection for another source of a moisture problem (i.e., roof leak) and/or repointing fail to resolve the problem, the owners should consult a professional before assuming a coating will be a positive step.

As with brick, other types of masonry should be maintained by periodic inspection and pointing maintenance. Coatings should be avoided. Stucco should be patched with a mixture that duplicates the original as closely as possible in composition, color, texture, hardness, and type of finish (smooth, troweled, etc.).

Masonry buildings should not be re-surfaced with historically inappropriate new materials such as artificial stone, brick veneer, artificial siding, or asphalt shingles. Individual bricks or stones should, if necessary, be replaced in-kind.

Masonry buildings should be cleaned only when necessary to halt deterioration. Only gentle methods, such as low-pressure water and natural bristle brushes should be used. Any abrasive method, such as sandblasting, erodes the surface and accelerates deterioration. High-pressure water may penetrate the surface of some materials where it may freeze and expand, causing damage, or may cause efflorescence on the interior. It may also penetrate around openings, causing water damage to plaster. If chemical cleaners are used, avoid using products that may have an adverse reaction with the masonry (i.e., do not use acid on limestone or marble).

Wood

Wood siding includes clapboard, shingles, and board-and-batten siding. Wood siding is an essential part of a building's character and appearance. It is easily repaired by patching with

new wood where deteriorated. If properly prepared and painted on a regular maintenance schedule (usually between five and ten years depending on environmental conditions), wood siding will last hundreds of years. It is not appropriate to strip and stain siding that was painted historically. Covering over wood siding with vinyl or aluminum siding has two major disadvantages. The new material traps moisture, accelerating deterioration of the siding and the wood frame structure beneath and creating an inviting environment for insect infestation. Covering over the siding also often means removing many architectural elements and creating a flat appearance by bringing the siding out flush with the window and door casings.

Metal

Some architectural elements are executed in metal, including cast iron, steel, pressed tin, aluminum, and zinc. These architectural features contribute to the building's character and should not be removed. Cast iron and steel can usually be cleaned by mechanical methods, including sandblasting, while pressed tin, zinc, and aluminum should be cleaned by the gentlest method possible.

Paint

Paint can be removed by several methods. Handscraping or sanding, which should be done wet to keep dust down, is the preferred method of removal. The paint should only be removed to a sound substrate. It is not necessary to strip it completely. The paint chips and runoff water should be collected and properly disposed if the paint contains lead, as most paint applied before 1978 does. Chemical strippers are also useful. Any type of burning or heat method, however, is discouraged due to the very real danger of fire and the destruction of the building.

New paint schemes should match the original, if known, or should be appropriate to the period of the building. The New Jersey Main Street program provides assistance with the selection of period-appropriate paint schemes for buildings within Main Street districts.

Windows and Doors

The fenestration pattern is often an integral part of a building's style. Existing openings, including window sash, glass, lintels, sills, architraves, shutters, pediments, hoods, steps, and hardware. The size of the panes or sash should not be altered, as such changes destroy the scale and proportion of the building. If replacement of any window part is necessary due to deterioration, the replacement should match the original in material and design. Plastic awnings and vinyl or aluminum non-operable shutters are historically and aesthetically inappropriate.

Porches

Porches are not common to commercial buildings, but some Main Streets contain residences that have been changed to commercial uses. The features of a porch should be retained and maintained. Where features have been lost or are severely deteriorated, they should be replicated if possible or replaced with compatible elements of the same size and proportion if components matching the original cannot be obtained. Porches should not be enclosed with opaque walls or materials. If the porch has become part of the storefront, it should be glassed in.

Storefronts

If the historic storefront still exists, it should be retained and maintained. If the storefront has been altered but still retains some original features or fabric, new work on the storefront should focus on reversing inappropriate alterations. If a storefront has been completely replaced, new construction should be designed in relation to the building as a whole. If historic photographs are available, they should guide the design of the new storefront. In the absence of documentation, the storefront should be compatible with the rest of the building in materials, style and detailing. It should contain the basic elements of a typical historic storefront, including, from the bottom, paneled bulkheads, bulk windows, a centered, usually recessed entrance with transom, side piers, a signage band, and a cornice or entablature.

Modern features without historical basis should not be incorporated into new storefronts or added to existing ones. Storefronts should not be enclosed for residential use as these buildings then detract from the commercial streetscape and the buildings are prevented from being utilized to their highest and best use.

Signs

Signage is primarily informational and should be clear and simple. Original and creative designs are encouraged, but the key is for sign to fit the building's style and the district's character. Extraneous signage should be eliminated as it detracts from primary advertising. Signage should be placed to enhance and respect the storefront's design.

For example, signage can be architecturally centered above the storefront bays in the "signband" area of the storefront's cornice entablature. Hanging signs acceptable but they

may be obscured to the pedestrian by awnings and other signs. Simple identification signage can also be placed on the valence of an awning. A line of signage painted along the base of the shop window will effectively identify the products sold therein (and can then be reinforced by the actual products displayed above in the window). Wood or metal signs are appropriate in a sign band; plastic signs and internally lighted signs are not historically or aesthetically appropriate.

Awnings

Awnings should be canvas material over retractable metal frames. They can run the full width of the building or be centered over doors and/or windows. Fixed plastic or metal awnings are historically inappropriate and visually intrusive, as are curved quarter-round shapes. An awning can often also serve as a location for primary signage on the valence (or hanging flap), as well as to provide shade and solar control.

Grates

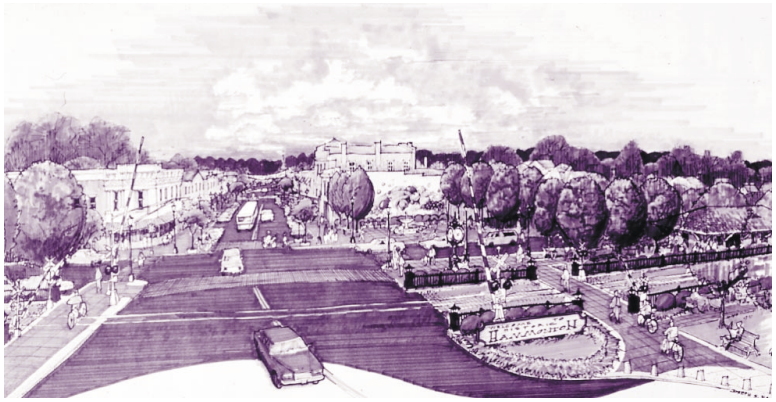
Solid roll-down security grates are a significant visual intrusion that contributes to an impression of an undesirable neighborhood. Furthermore, solid grates prevent passersby (including the police) from seeing intruders who have entered the store from the top or rear. In most cases, alarm systems provide sufficient protection from isolated incidents of broken windows. If a grate is absolutely necessary, open mesh grates instead of solid are visually preferable and should be installed inside the storefront windows to reduce their visual intrusion.

Lighting

Historically, storefronts were not illuminated. If lighting is required, however, gooseneck lamps or shadowbox lighting is visually preferable to any other methods of lighting.

Site

While most urban commercial buildings typically stand shoulder to shoulder or with only narrow alleys between, some historic site elements may be encountered, including fencing (usually wrought or cast iron), benches, and decorative paving (tiles or other elements set into walks). These elements should be repaired and maintained, since they connect the building to its surroundings, and new site elements should be in compatible materials and style.



Sample Maintenance Program

The styles and elements of a street's buildings create a visually dynamic and cohesive environment. Yet it is these character defining elements—such as brackets, finials, decorative shingles, trim details, and others—that are most susceptible to loss through unchecked deterioration and poor preservation practices. Simple maintenance tasks quickly become large preservation problems if left unattended.

From a standpoint of both cost and time, it is much more effective to keep old materials than cover or replace them with new or synthetic materials. If a wooden building is repainted before the old paint coat begins to peel, costly surface preparation and wood replacement can be avoided. Then, artificial siding materials would not even be considered due to their relatively high expense, lack of architectural character, and inherent long-term problems. A preservation plan for a building is really a strategy for undertaking periodic maintenance and avoiding mistakes. The following recommended maintenance program will help property owners to identify small problems before they become large ones.

Semi-Annual Tasks

Cellar:

Inspect cellar space noting musty or damp smells. When humidity is high, a window fan or dehumidifier should be used to dry the air and prevent wood deterioration.

Inspect cellar floor for area of standing water or visible dampness. Determine cause of moisture infiltration and take steps to arrest future infiltration.

Inspect cellar framing for fruiting bodies such as fungus growing out of wood a sign of active biological deterioration. Treat as necessary.

Attic:

Check condition and position of insulation. Check the roof sheathing for water stains and dampness. Check for proper ventilation. Make sure exhaust fans are operational and vents are not housing birds' nests or other obstructions.

Window Wells:
Remove leaves and debris. Check whether standing water is collecting. The bottom of the window well should be covered with gravel (not concrete) to allow water to percolate through the soil. Check condition of basement window trim. Repair and / or paint as necessary.

Roofing Shingles and Dormer Sheathing:
Check for worn, loose, or missing shingles. Repair leaks, weak areas, loose attachments. Replace missing shingles to match.

Sheet Metal Coping, Cornice, and Flashing:
Check for cracks, warps, distortions, or weak areas, loose or damaged seams, loose attachments. Check for loose, damaged or missing sections. Check substrate underneath for moisture damage, especially at attachment points. Replace damaged or missing sections to match existing sections. Repair leaks and weak areas. Reattach to repaired masonry or wood substrate. Paint colors for flashing should match adjacent construction.

Gutters and Downspouts:
Look for leaks or blocked sections of gutters and downspouts during a heavy rainstorm. Clean system of any blockages and repair leaks. Check for any loose gutters and downspouts. Reattach as necessary.

Caulking Compound:
Check caulk for brittle, cracked or missing pieces. Remove any damaged areas, clean, prime or seal according to manufacturer's specifications, provide backer rods and bond-breaker tape as required, and replace caulk. Sealant should be a factory-mixed color to match adjacent construction or should be paintable. Caulking compound typically has to be replaced about every six years.

Woodwork: Doors, Windows, Shutters, Cornice, and Trim:
Check for moisture damage, warping, splitting and unsound joints. If wood is decayed, determine source of moisture, stop leaks, and replace decayed wood and damaged flashing. Repair unsound joints. In natural finish woodwork, repair holes and damaged areas using wood that matches the existing in species, grain, pattern, and color. In painted woodwork, seal fine cracks with wood filler. Check putty for cracks or missing pieces. Reglaze where necessary. Coat all bare wood with preservative and refinish.

Prime and paint any new flashing, putty, or other glazing materials.

Check for loose attachments of hardware. Reattach as necessary. Lubricate moving parts, such as door and shutter hinges with non-running grease or silicone. Open and close shutters to prevent rusting of hinges.

Storm / Screen Windows:
Remove debris; unclog any drainage slots in frames. Check for loose joints, deteriorated paint, corrosion, holes, moisture damage, and wear. Repair any loose joints or attachments. When paint finish deteriorates, prepare surface and repaint a color to match adjoining window.

Glass:
Check for cracked or broken panes of glass. Where cracked glass is modern, replace; where cracked glass is historic (distinguishable by surface imperfections), check the pane for tightness and, if loose, replace. Replace all broken glass, matching decorative pieces.

Paint:
Check for bare spots, blistering, peeling and mildew. Check where moisture is entering wood and stop leaks. Wash mildew with fungicide. Split blisters, scrape peeling areas, remove rust and sand rough spots. Coat bare wood with preservative. Prime and paint wood with two coats of exterior house paint, using materials compatible with the preservative. Typically, paint has to be replaced every 5 to 8 years.

For ferrous metals such as cast and wrought iron, scrape and wirebrush deteriorated paint and rust from the metal before priming and repainting with paints made for metalwork (not house paint).

Exterior Light Fixtures:
Check for deteriorated paint, rust, corrosion, moisture damage, and wear. Repair any loose joints, weak links, attachments of hardware, and wiring conditions as necessary. When metal finish deteriorates, restore to match original. Replace broken glass to match original.

Structural Checkpoints:
Check exposed exterior and interior surfaces of walls and foundations, with particular attention to areas of stairways, floor openings, wall openings, and changes in wall masonry material. Check for cracks and collapsing, leaning or bulging areas or other signs of uneven settlement, movement, or structural deterioration.

Check interior wall surfaces at upper levels, with particular attention to joints between side and front and rear walls, joints between floors and end walls, and joints between partitions and ceilings. Check for cracks, crumbled plaster, gaps between finishes or other signs of movement.

Check exposed roof framing members for rotted, split, or cracked timbers. Check exposed masonry where timbers bear on walls for crumbling or gaps which might indicate wall movement.

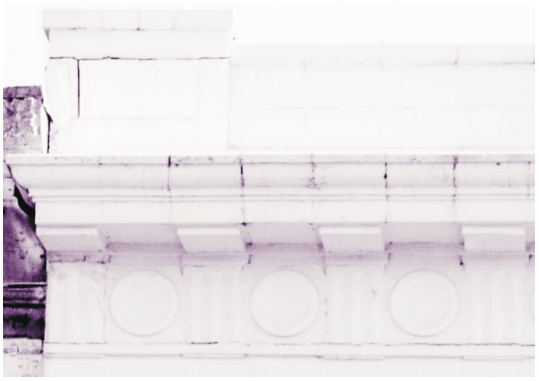
If structural members have deteriorated, significant cracks or other signs of movement are observed, review structural condition of building with an engineer qualified to evaluate its condition and repair in accordance with engineer's recommendations.

Chimneys:
Check fireplace box floors for signs of brick deterioration (brick dust and/or pieces of brick or mortar) or animal activity (nesting materials, droppings, etc.). When these signs are present, consult a professional and treat accordingly. Have a professional inspect and clean any working fireplace flues annually. From the ground, check the exterior of the chimney where it projects above the roof for the signs of movement. Remove television antennas that are no longer in use. Rebuild leaning chimneys, matching the material, color, design, and detailing of the original.

Insect Infestations:
Inspect building for termites and other wood-damaging insects. Note evidence of insect activity: small holes in the wood, small piles of sawdust, clay tubes, or actual insects. Annually or bi-annually this inspection should be undertaken by a professional exterminator. Treat as necessary.

Landscaping:
Check grading to assure proper drainage of rainwater away from building. Prune trees as necessary to promote health and to prevent branches from rubbing the building's roof or walls. Trim or relocate any bushes and remove any seedlings or weeds, growing within two feet of the porch or building foundation walls. Remove any vines growing on the building walls.

Annual Tasks



Brick & Masonry:

Check for moist areas, cracks, crumbling material, and efflorescence (white discoloration). Determine where moisture is entering masonry and repair any leaks in roofing, cornice, flashing, downspouts, and joints between masonry and other materials. Replace flashing or recaulk leaking joints as required. If significant cracks, movement, surface spalling, or material deterioration is found, review condition of masonry with registered architect or professional engineer experienced in methods of evaluating brick and masonry. Make repairs as necessary in accordance with professional recommendations.

Check for loose units of masonry and missing or deteriorated mortar. Repoint joints that have loose or crumbling mortar using mortar that matched original in color, texture, constituent composition, and workmanship. Mortar should not have high Portland cement content and should be no harder than surrounding brick or masonry or original mortar. Conduct the following procedure: remove deteriorated or loose mortar with hand tools to a minimum depth of 2.5 times joint width; clean joints; apply fresh mortar to wetted joints in layers not thicker than one quarter inch. Joints should be slightly recessed to maintain original width and tooled to match original finish.

If the masonry is heavily soiled, clean only with materials and techniques that will not damage the masonry. Scrubbing with natural bristle brush wetted with natural detergent in water in usually sufficient to remove dirt and grime. Sandblasting, wire brushes, grinders, sanding discs, or other abrasive methods should not be used. Nor should any harsh chemical that weakens the masonry be applied. Any chemical cleaner, if required, should be chemically neutralized and thoroughly rinsed off in order to remove residues that could damage masonry or finishes. Pressure water washings, if necessary, should be low pressure (not exceeding 600 psi pressure at the nozzle or 4 gpm volume). Never clean masonry when there is any possibility of frost, as the absorbed moisture will freeze within the wall causing severe damage.

Snow removal materials that might damage masonry, such as salt, should not be used on masonry steps or adjacent to stone foundations or brick walls.

Where necessary, stone work should be patched to match the original in color and texture using a low Portland cement content patching material.

Stucco and Concrete:
Check for moist areas, cracks, loose chunks, or crumbling stucco and concrete. Repair using stucco or concrete patching material with the composition, color, texture, and finish of the existing material, not Portland cement. Adequately bond patches to substrate and reinforce large patches with fiberglass mesh or galvanized metal lath. Reflash and/or recaulk cracks and leaking joints as required.

Metal Railings:
Check for deteriorated paint, rust, moisture damage, and wear. Repair any loose joints, attachments, or hardware. Remove rust, using materials and methods which will not accelerate pitting and corrosion of the metal. Prime and paint.

Varnish:
Check for cracking, white water stains, and discoloration of varnish. Restore varnished finish as follows: first, try to restore existing varnish by softening with methylene chloride, taking appropriate safety precautions while using this solvent, and buffing with fine steel wool and a finishing oil to a new smooth finish. If that procedure is unworkable, remove existing varnish using materials and methods that will not damage wood. Apply a non-staining preservative or water repellent, such as a proportional mix of three cups exterior varnish, one ounce melted paraffin wax, and enough mineral spirits, paint thinner, or turpentine to make one gallon. If wood has been stained, re-stain to original color. Revarnish.

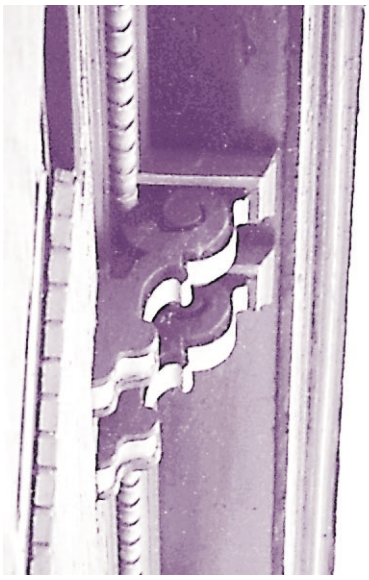
Appendices

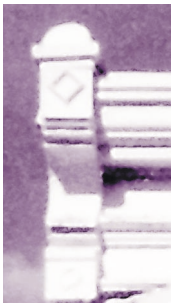
Appendix A: Glossary of Terms

Apron	A decorative, horizontal trim piece on the lower portion of an architectural element.
Ashlar	A wall constructed of quarried stone building blocks that have been squared and finished with a smooth surface; beginning in the 19th century, the term indicates facing backed by rubble or brick walls. *(Dictionary of Building Preservation)*
Backpriming	The coating of unexposed surfaces of exterior wooden members with primer paint to protect against deterioration.
Balconette	A small, projecting, decorative balcony.
Baluster	One of a number of closely-spaced, short vertical pieces providing support for the railing of a balustrade.
Bargeboard	A decorative board attached under the projecting portion of a gable roof.
Batten Door	A door formed of full height boards glued edge to edge with horizontal and vertical battens applied to give the appearance of paneling; a rough door formed of full height boards attached edge to edge by horizontal boards nailed to the verticals. *(Dictionary of Building Preservation)*
Bay	The portion of a facade between columns or piers providing regular divisions and usually marked by windows.

Bay Window	A window (or windows) which projects from the vertical plane of a facade.
Bead	A continuous convex shape at the edge of molded woodwork.
Belt Course	A horizontal band usually marking the floor levels on the exterior facade of a building.
Blind Arch	A curved, recessed area above a window or door opening which is infilled in wood or stuccoed rather than glazed.
Bolection Molding	On exterior doors, a decorative molding which runs around the panels, overlapping and projecting beyond the rails and stiles.

Bond	A term to describe the various patterns in which brick (or stone) is laid such as “common bond” or “Flemish bond.”
Box Cornice	A hollow, projecting cornice consisting of soffit board, fascia board, and decorative wooden moldings. This type of cornice sometimes includes a built-in gutter.
Bracket	A projecting wooden or tin element that spans between vertical and horizontal surfaces as a decorative support.
Built-In-Gutter	A sloped channel in the top of the cornice, open to the roof, that serves to collect and direct rainwater to the downspouts.
Bulkhead Doors	The paired, sloping or flat doors that provide exterior access to a basement.
Came	The metal strip, usually of lead, which divides the pieces of glass in a stained glass window. (Caming)
Cant	An architectural member that forms an angle with a vertical wall, most commonly used to describe the piece of wood which diverts water at the upper face of a chimney on the downward slope of a roof.
Capital	The top element of a column or pilaster.
Casement Window	A window with one or two sashes which are hinged at the sides and usually open outward.
Caulking	The non-hardening putty-like material used to seal the joints between dissimilar exterior materials, such as where wood window trim abuts a brick wall.
Cheek Walls	The pair of low, often angled, support walls that flank masonry steps or bulkhead doors.
Clapboards	Horizontal wooden boards, thinner at the top edge, which are overlapped to provide a weatherproof exterior wall surface.
Classical Style	Architecture inspired by the buildings of ancient Greece and Rome, especially in the designs of columns.
Clipped Gable	A gable roof where the end of the ridge is terminated in a small, diagonal roof surface.





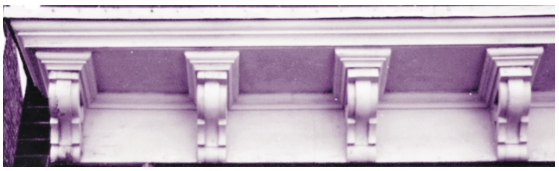
CMU — Concrete masonry unit; a hollow, structural concrete block frequently used for building foundations and porch piers.

Column — A vertical structural member, usually slender and circular or square in cross-section, with a decorative cap and base. (Classical Orders are often used where appropriate.)

Common Bond — A brickwork pattern where most courses are laid flat, with the long “stretcher” edge exposed, but every sixth to eighth course is laid perpendicularly, with the small “header” end exposed, to structurally tie the wall together.

Console — A decorative vertical element, usually of pressed tin, which ends cornice.

Corbelling — Successive brick courses projecting beyond the face of the wall to form a decorative bracket or cornice.



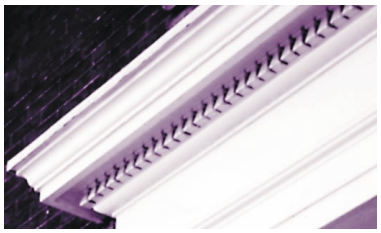
Cornerboard — A vertical strip of wood placed at the edges of a frame building.

Cornice — A continuous, projecting, horizontal element that provides the transition between building wall and roof, or between storefront and upper stories.

Cresting — A decorative row, usually of metal, ornamenting the top edge of a roof.

Cross-Gable — A secondary gable roof which meets the primary roof at right angles.

Cupola — A small, roofed structure crowning a ridge or turret, originally domed, sitting on a circular or polygonal base.



Denticulated — With dentils.

Dentils — A row of small, projecting blocks articulating a molding.

Diamond Shingles — A decorative pattern of wall shingles laid in staggered horizontal rows where the corners of the wooden shingles have been cut off at the bottom to create a diamond shape.

Door Hood — A decorative and functional projecting pediment above the door.

Doric — One of the five classical orders of architecture, predominantly used to describe tapering columns with molded capitals and bases.

Dormer — A projecting vertical structure on the slope of a roof which provides light and headroom to the interior space.

Double-Hung Window — A window consisting of two sashes, one above the other, both of which slide vertically on separate tracks.

Downspout — A hollow, vertical element, circular or rectangular in cross-section, which carries rainwater down from the roof to the ground.

Dutchman — A patch spliced into wooden members (where damaged or deteriorated) to match the original construction.

Eave — The underside edge of a roof where it projects beyond the wall.

Efflourescence — The deposit of soluble salts on the face of masonry, brought from within by water entering the wall.

Elephantine — A term to describe very squat, disproportionately heavy columns.

Elevation — Each of the vertical exterior walls of a building, also called facade.

End Chimney — A fireplace flue placed on the outside wall of one of the short sides of a rectangular building.

Entablature — The decorative and structural horizontal element at the top of a storefront, a Classical Revival doorway, or spanning atop columns in classical architecture.

Entasis — The diminishing taper of the upper two-thirds of a column.

Facade — The front or primary vertical exterior wall of a building.

Fanlight — An arching, semi-circular or elliptical transom window above a doorway.

Fascia	The vertical surface of the horizontal element that encloses a box cornice or covers the outer edge of a porch floor structure.
Feathered Edge	A diminishing thickness at the edge of a new material where it adjoins old, used to minimize the appearance of the joint (in wood) or transition (in paint).
Fenestration Pattern	The placement and rhythm of window and door openings on a building's facade.
Finial	A projecting decorative element, usually of metal, at the top of a roof turret or gable.

Fishscale Shingles	A decorative pattern of wall shingles composed of staggered horizontal rows of wooden shingles with half-round ends.
Fixed	A building element that does not move, such as an inoperable window or an artificial shutter.
Flared Eave	The eave of a roof that gently curves out, extending the slope at the edge of the roof.
Flashing	Thin metal sheets used to prevent moisture infiltration at joints of roof planes and between the roof and the vertical surfaces of roof penetrations or abutting walls.
Flat Seam	On porch roofs, the joint between the vertical metal roofing strips which are folded together and laid flush to the surface to prevent moisture infiltration at the seam.
Flemish Bond	A brickwork pattern where the long "stretcher" edge of the brick is alternated with the small "header" end for decorative as well as structural effectiveness.
Flute	One of a series of decorative concave vertical grooves cut into the surface of a column or pilaster.
Foliated	Decorative, carved moldings resembling flowers and leaves.
Foundation	The lowest exposed portion of the building wall, which supports the structure above.
Frieze	The middle portion of a classical cornice; also, applied decorative elements on an entablature or parapet wall.

Gable End The triangular portion of the vertical end wall beneath the slopes of a roof.

Gable Roof A pitched roof with one downward slope on either side of a central, horizontal ridge.

Gambrel Roof A pitched roof with two different slopes on either side of a central, horizontal ridge.

Glazed Header The exposed small end of a brick placed close to the heat source during firing to produce a darkened, glossy surface.

Half-Timbering A decorative treatment on stucco-covered buildings where vertical, diagonal, and horizontal wooden members divide the stucco into panels. Originating in England during the Elizabethan period when the wooden members were actually structural, this treatment characterizes houses of the Tudor Revival style of architecture.

Hang Gutter The horizontal, gently-sloping element suspended from the bottom of a roof slope to direct rainwater to the downspout.

Head The top, horizontal member of a door or window frame.

Hipped Roof A roof which slopes towards all walls.

Impost Block The element at either side of an arch, from which it springs.

Ionic One of the five classical orders of architecture, used to describe decorative scroll capitals.

Infill New construction where there had been an opening before, such as a new building between two older structures, or block infill between porch piers or in an original window opening.

Jambs The upright sides of a window or door opening, perpendicular to the wall, also called reveals.

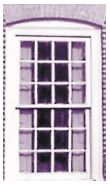
Jetty A projecting upper story of a building.

Jigsaw Bracket A decorative bracket cut from a flat board with a jigsaw.

Keystone The uppermost wedge-shaped element at the center of an arch.

Knee Brace	An oversized bracket supporting a cantilevered or projecting element.
Lattice	An open grille of interlacing, thin wood strips used as a screening between the piers of a porch.
Leaded Glass	Glass, whether clear or stained, set in lead cames.
Lintel	A short, horizontal member spanning the top of an opening in a wall.
Louvered Shutter	A vertical wooden element, hinged to close over a window or door opening, composed of sloping horizontal slats held in a framework of rails and stiles. Louvered shutters are designed to admit air but not rain.
Lunette Window	An arched, elliptical window.

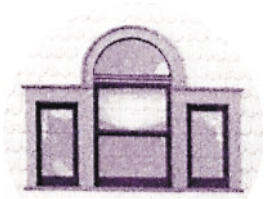
Mansard Roof	A roof with two slopes on each side, the lower of which is very steep and usually covered with slate. This roof form characterizes houses of the Second Empire Style.
Masonry	Brick or stone construction.
Massing	The three-dimensional form of a building.
Meeting Rail	The horizontal member where the lower and upper sashes of a double-hung window overlap.
Modillion	One of a series of scroll-shaped brackets supporting the projection of a cornice.
Mortar	A mixture of sand, lime, cement, and water used as a binding agent in masonry construction.
Mullion	A heavy vertical divider between windows or doors.



Multi-light Window	A window sash composed of more than one pane of glass.
Muntins	Thin strips of wood which divide and hold the panes of glass in a multi-light window.
Newel	A post at the top or bottom of a set of steps which terminates the stair railing.

Oriel Window	A bay window (or windows) which projects above the ground floor level.
Paired Columns	On a porch, two columns supported by one pier.

Palladian Window A tripartite opening with central arched-head window flanked by smaller square-head windows that share the same sill.



Paneled Door A door composed of solid panels (whether raised or recessed) held within a framework of rails and stiles.

Paneled Shutter A vertical wooden element, hinged to close over a window or door opening, composed of solid panels held within a framework of rails and stiles. Paneled shutters are designed to provide additional security at a ground-level opening.

Parapet A low, horizontal wall at the edge of a roof.

Pavilion A subsidiary portion of a monumental building, distinguished from the main mass by decoration or height. *(Dictionary of Building Preservation)*

Pediment A crowning triangular element at the face of a roof gable or above a door opening.

Pendant A hanging, ornamental architectural feature, especially when elaborately sculpted. *(Dictionary of Building Preservation)*

Pent Roof A continuous, horizontal shed roof projecting from the wall between the first and second floor windows.

Pier A square or rectangular masonry or wood post projecting less than a story above the ground that carries the weight of a structure down to the foundation. *(Dictionary of Building Preservation)*

Pilaster A shallow engaged column or pier.

Pitch The degree of a roof's slope.

Plinth The block at the bottom of a column base.

Pointing The exposed jointwork of masonry construction, decoratively finished (or "tooled") to be recessed behind the face of the masonry.

Pole Gutter A gradually-sloping horizontal channel of metal-covered wood mounted on the lower portion of a roof to direct rainwater to the downspouts.

Portico A columned porch, especially at the main entrance to a Classical Revival style building.

Portland Cement	A strong, inflexible hydraulic cement used to bind mortar. Mortar or patching materials with a high Portland cement content should not be used on old buildings. (The Portland cement is harder than the masonry, thereby causing serious damage over annual freeze – thaw cycles.)
Post	A vertical structural member, ususally slender and either round or circular in cross section, often with ornamental treatments such as fluting, turnings, chamfers, etc., and sometimes with a simple capital and base.
Preservation	The act or process of applying measures necessary to sustain the existing form, integrity, and materials of an historic property. *(Secretary of the Interiors Standards for the Treatment of Historic Properties)*
Pressed Tin	Decorative, as well as functional, metalwork made of molded thin and used to sheath roofs, bays, and cornices.
Primer	A base coat of paint; typically has more binder and less pigment than topcoat paint.
Purlin	A horizontal beam in a roof structure that supports the common rafters that typically spans between the principal rafters or parallel roof trusses.
Quoins	A vertical row of stones, wooden blocks, or brick pattern at the corners of a building.
Rail	A horizontal framing member of a paneled door or shutter.
Raised Panel	A square or rectangular board of wood which is beveled at the edges and held within a framework of a door, shutter, etc.
Recessed Panel	A flat, square, or rectangular board of wood which is set back within the framework of a door, shutter, etc.
Reconstruction	The act or process of depicting, by means of new construction, the form, features, and detailing of a non-surviving site, landscape, building, structure, or object for the purpose of replicating its appearance at a specific period of time and in its historic location. *(Secretary of the Interiors Standards for the Treatment of Historic Properties)*

Rehabilitation	The act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey its historical, cultural, or architectural values. *(Secretary of the Interiors Standards for the Treatment of Historic Properties)*
Restoration	The process of accurately taking a building's appearance back to a specific period of time by removing later work and by replacing missing earlier features to match the original.
Ridge	The top horizontal member of a roof where the sloping surfaces meet.
Riser	The vertical face of a step.
Rising Damp	Moisture absorbed by masonry walls through capillary action from the soil below.
Rusticated	Roughening of stonework or CMU's to give greater articulation to each block.
Sash	The frame of a window, into which glass is set.
Sash Door	A door with glazing.
Sawtooth Shingles	A decorative pattern of wall shingles alternating long and short rectangular pieces of wood in staggered horizontal rows.
Scored Stucco	Stucco that has been tooled with shallow grooves before drying to simulate blocks of stone.
Sheathing	Boards or other surfacing applied to a structural frame to facilitate weatherproofing and the installation of the finished surface.
Shed Roof	A shallow, single-sloped roof.
Shingle Exposure	The portion of a wall or roof shingle that can be seen after it is installed.
Shoring	Temporary structural supports to prevent the collapse of a building element during renovation.
Sidelight	A vertical, narrow window with fixed glass flanking a door.

Signage Band	A continuous, flat, horizontal area above the first floor designed to receive advertising on commercial buildings. This area is usually incorporated into the storefront cornice's entablature.
Sill	The horizontal member at the bottom of a door or window opening.
Six-over-six Window	A double-hung window with six panes of glass in each sash. When the top sash is fixed, the six-over-six window is single-hung.
Soffit	The exposed underside of a cornice, eave, or other spanning element.

Spalling	The delamination of a masonry surface from the effects of moisture infiltration and changing temperatures.
Spandrel Panel	The vertical area located between the head of the first floor window and the sill of the second floor window.
Spindle	A term for a turned baluster and other decorative, thin wooden elements cut on a lathe.
Splash Block	A stone or cast concrete block at the base of a downspout that directs rainwater away from the base of a building.
Standing Seam	On porch roofs, the joint between the vertical metal roofing strips which are folded together and left upright to prevent moisture infiltration at the seam.
Stile	A vertical framing member of a paneled door or shutter.
String Course	A projecting, horizontal molding separating parts of a wall surface, especially in masonry construction.
Surround	The decorative trim around a door or window opening.
Swag	A curved, foliated garland or draping cloth design used as an applied decorative treatment on flat vertical surfaces.
Terrace	A raised area or walkway adjacent to a house.
Threshold	The sill of an entrance door.

Tooling	Decorative grooves on wood or stone, or in mortar joints.
Tracery	Thin, intersecting lines of wood or metal creating a decorative pattern. Tracery is most commonly found on transom windows and fanlights.
Transom	A horizontal window above a door or window, usually rectangular in shape although an arched fanlight is also a form of transom.
Tread	The horizontal surface of a step.
Trim	The decorative as well as functional woodwork edging openings and covering joints of a finished facade.
Turned woodwork	Wooden elements cut on a lathe.
Turret	A small tower with a steep pointed roof, usually found at one corner of Queen Anne Style buildings.
Tuscan	One of the five classical orders of architecture, predominantly used to describe heavy, tapering columns with molded capitals but not bases.
Two-over-two Window	A double-hung window with two panes of glass in each sash.
Valley	The internal angle formed by the junction of two sloping sides of a roof.
Vapor Barrier	A thin metallic or plastic sheet combined with insulation or sheathing to prevent the passage of moisture through a wall, floor, or ceiling.
Veranda	Another term for porch; a veranda typically extends along an entire side wall.
Vernacular	A regional adaptation of an architectural style or styles.
Wash	A slight slope of mortar on the top surface of a brick chimney or other masonry construction designed to shed water.
Water Table	The projecting decorative molding of a masonry wall at the point where the wall thickens, often just below the first floor joists. *(Dictionary of Building Preservation)*

Weather-stripping	Interlocking strips of material, usually metal, that help prevent the infiltration of air around an exterior opening.
Widow's Walk	A decorative balustrade at the top of a hipped roof.
Wrap-Around Porch	A front porch which turns one or both of the building's corners to continue along the side.
Wrought Iron	Decorative metalwork that is hammered, bent, and twisted into shapes (rather than poured into molds as in "cast iron"). Historically used for fencing and basement window grilles.

Appendix B:
Additional Sources of Information

State Organizations

This appendix provides a listing of both State and National organizations dedicated to preservation causes. All will provide information to assist property owners. In addition, a listing of reference books and articles is included for further study.

Main Street New Jersey
NJ Department of Community Affairs - Office of Smart Growth
P.O. Box 204, Trenton, NJ 08625-0204
(609) 633-9769

Main Street New Jersey was established in 1989 to encourage and support the revitalization of downtowns throughout the State. Since 1990, Main Street New Jersey and the Department of Community Affairs have designed 18 municipalities State-wide as "Main Street Communities."

Historic Preservation Office
New Jersey Department of Environmental Protection
P.O. Box 404, Trenton NJ 08625-0404
(609) 292-2023

Source of voluminous information on most preservation issues including National Register Nominations, Investment Tax Credits, and preservation techniques. Both advice and literature are given freely, including copies of the excellent "Preservation Briefs" and "FYI" series.

Preservation New Jersey
18 West Lafayette Street, Trenton, NJ 08608
(609) 392-6409

The only non-profit statewide membership organization whose mission is to preserve, protect, and promote New Jersey's historic places for the enjoyment and education of present and future generations by working to: build awareness and appreciation of local and statewide historic preservation efforts and share historic preservation knowledge through publications, programs, and a network of preservation experts. Preservation New Jersey publishes a quarterly newsletter, "Preservation Perspectives."

National & International Organizations

The National Trust for Historic Preservation
1785 Massachusetts Avenue, NW, Washington, DC 20036
(202) 673-4129

The National Trust started the National Main Street Center in 1980, and now assists with programs in 45 states. They print the bi-monthly "Historic Preservation" magazine and monthly "Preservation News." The Trust also publishes an annual list of endangered properties, sponsors an annual educational conference, and advocates for preservation issues throughout the country.

The National Trust for Historic Preservation (Regional Organization)
7 Fanueil Hall, Marketplace, Boston, MA 02109
(800) 944-6847

The Trust's Regional Office provides technical information and advice.

The Association for Preservation Technology (International Organization)
Box 8178, Fredericksburg, VA 22404-8178
(703) 373-1621

APT publishes the "Bulletin" and "Communique" which are distributed quarterly. APT also sponsors an annual conference focusing on the technical aspects of building preservation.

The Association for Preservation Technology – Delaware Valley Chapter
c/o Richard I. Ortega, P.E., Chair
P.O. Box 426, Media, PA 19063
(610) 565-1131

The Delaware Valley Chapter of APT sponsors seminars on preservation issues and field trips to area sites of historic interest.

Reference Books and Articles

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Longstreth, Richard. *The Buildings of Main Street: A Guide to American Commercial Architecture*. Washington, DC: The Preservation Press of the National Trust for Historic Preservation, 1987.

McAlester, Virginia and Lee. *A Field Guide to American Houses*. New York: Knopf, 1984.

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DRUGS
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