Building Elements VII

A. Windows and Doors

1. Retain original windows and doors, including glass and hardware. For new construction, use window and door styles that relate to those found in the district. These styles are described below. Window styles vary by sash design primarily, but elements such as sills, lintels, decorative caps, and shutters should also be respected. Doors vary by amount of glass, number of panels, and decorative features.

Preservation Brief #03
Conserving Energy in Historic Buildings

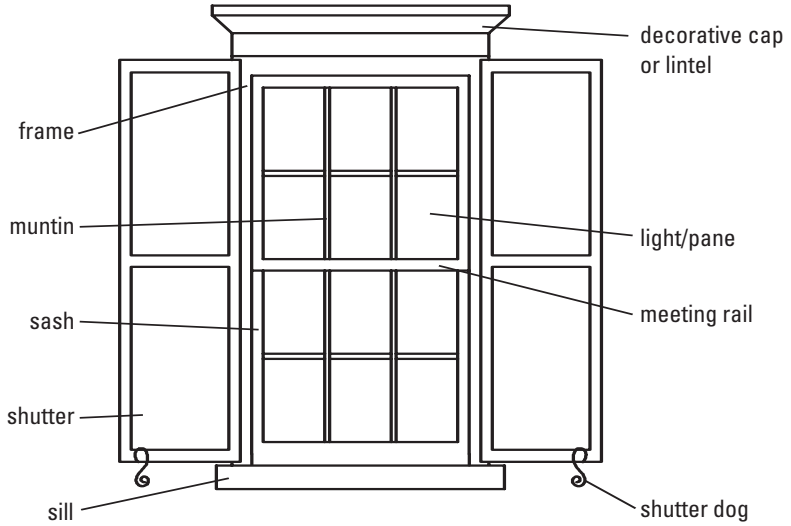
Preservation Brief #09
The Repair of Historic Wooden Windows

Preservation Brief #13
The Repair and Thermal Upgrading of Historic Steel Windows

Preservation Brief #33
The Preservation and Repair of Historic Stained and Leaded Glass

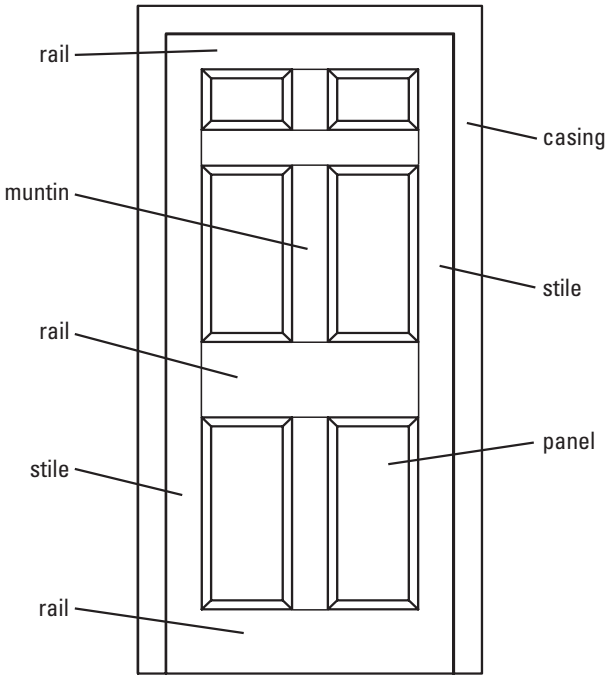
available from:
www2.nps.gov/tps/briefs/presbhom.htm

Elements of a Window



The various architectural styles and periods of construction within the Smithfield district are represented by a corresponding variety of styles, types, and sizes of windows.

Elements of a Door



Doors help to define a building's particular style. As part of the porch and entrance, they can be decorated and ceremonial. Doors on secondary facades tend to be simpler and more utilitarian.

VII Building Elements

A. Windows and Doors

Window Types

Double-hung window sash, the most common type of window, vary by the number of panes in each sash. Georgian/Federal windows often are nine-over-nine sash. Two-over-two sash, the most common sash in Smithfield, are found on Victorian-era houses, including the Queen Anne style. Six-over-six, nine-over-six, and six-over-one windows are found on early-twentieth-century Colonial Revival style houses. One-over-one and three-over-one sash are found on early-twentieth-century houses and on many vernacular dwellings. Inappropriate modern replacements for double-hung sash include one-over-one sash or a single pane with snap-in muntins.

Composite windows are groupings of different types of windows. They typically occur on Victorian-era, Colonial Revival, and bungalow houses.

Leaded or art glass windows contain patterned designs or depict scenes. Popular during the Victorian era and the early twentieth century, they appear in churches and on elaborately designed houses, where they often are located in transoms, in large compositions, or in stairwell walls.

Decorative windows in shapes like circles or diamonds often embellish gables or light stairwells. The sash can be fixed or patterned muntin bars. A diamond-shaped window in the stairwell is particularly common in Smithfield.

Bay window.

Dormer window.

Composite window.

Bay windows project from the wall and have multiple sides, each of which has a window. Bay windows can be on the first or the second floor and often are combined with a bay of the building. They are typical with Victorian-era styles.

Dormer windows project from the roof of the house, allowing light to enter and increasing floor and head space. They are not very common in the district, but do occur on the top floor of Georgian/Federal houses and on the few bungalows in the district.

Building Elements VII

A. Windows and Doors

This nine-over-nine double-hung sash is capped by a flat wooden lintel with a carved keystone.

On this example, a nine-over-nine wooden double-hung sash is capped by a brick jack arch.

A third treatment found in Smithfield on nine-over-nine double-hung sash is the use of reeded wood trim with decorative corner blocks.

Here, a six-over six double-hung sash window is capped by a carved wood cornice.

A similar treatment is used on this two-over-two double-hung sash window.

In this Colonial Revival example, a nine-over one double-hung sash window is surrounded by simple architrave molding.

VII Building Elements

A. Windows and Doors

Door Types

Residential doors typically have wood panels and in some styles also have glass panes. Variations in the number and shape of these panels and panes determine the style of the door.

Commercial doors tend to have more glazing, typically a single glass pane. Decoration can include raised panels, beveled glass, or small panes.

Decorated entrances include features like pilasters, leaded glass, transoms, sidelights, and fanlights. The district contains excellent examples of decorated Georgian/Federal doorways.

Four-paneled doors are common on Italianate and Queen Anne houses. Paneled doors of varying designs occur on nineteenth-century houses. Some later styles combine glass panes with wood panels.

Louvered doors serve as storm doors on a few Georgian/Federal and Colonial Revival homes.

Decorated screen doors on Victorian-style homes sometimes have spindles and woodwork that complement the elaborate house trim of this period.

Georgian-style decorated entrance with pair of paneled doors capped with an arched transom.

Federal-style entry with six-panel door, applied pilasters and fanlight.

Colonial Revival entry with pedimented portico and classical door surround.

A. Windows and Doors

Narrow, paired four-panel doors are frequently found on Victorian houses.

This single four-panel door has glass panes in the upper panels.

Commercial doors often have more glazing than their residential counterparts.

Decorated screen door with spindlework trim.

Louvered doors are a traditional option to storm doors.

VII Building Elements

A. Windows and Doors

2. Repair original windows and doors by patching, splicing, consolidating, or otherwise reinforcing the original material.
3. Uncover and repair covered-up windows and doors. Reinstall any windows and doors that have been removed.
4. Replace windows and doors only when they are missing or beyond repair. Reconstruction should be based on physical evidence or old photographs. Do not use replacement windows or doors that substantially change the size, glazing pattern, finish, depth of reveal, appearance of the frame, or muntin configuration. Avoid windows with false muntins, fixed thermal glazing, and tinted glass (on major facades).
5. Do not change the number or location of windows or doors by cutting new openings or blocking in original openings.
6. Construct new windows and doors of wood or metal and match the style of the building. On storefronts, use painted wood or steel doors with large areas of glass. Extruded aluminum frames are not recommended for any windows or doors.
7. If exterior storm windows and doors are used, install them so that they do not damage the frames or obscure the windows or doors. Storm window divisions should match those of the original window.

Ensure that caulk and glazing putty are intact and that water drains from the windowsills.

Wood that appears to be in bad condition because of peeling paint or separated joints often can in fact be repaired. Attempt this repair before replacing the element.

If a window or door opening is no longer needed, the glass should be retained and the back side frosted, screened, or shuttered so that it appears from the outside to be in use. Fix doors in place.

Use interior storm windows if possible, taking care to install them so that they can be maintained easily and so that they do not cause condensation.

Improve thermal efficiency with weather stripping, storm windows and doors, caulking, interior shades, and, if appropriate for the building, blinds and awnings.

If aluminum-frame storm windows and doors must be used, apply a zinc-chromate primer and paint them to match other trim.

Replacement windows do not fit existing opening.

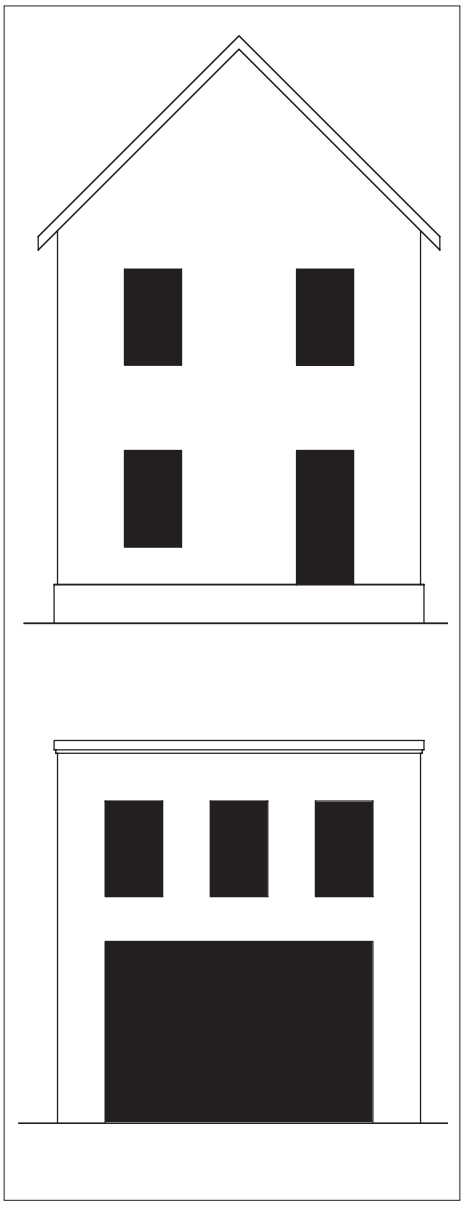
8. Use shutters only on windows that show evidence of their use in the past. Shutters should be wood (rather than metal or vinyl) and should be mounted on hinges. Shutters are generally inappropriate on composite or bay windows.

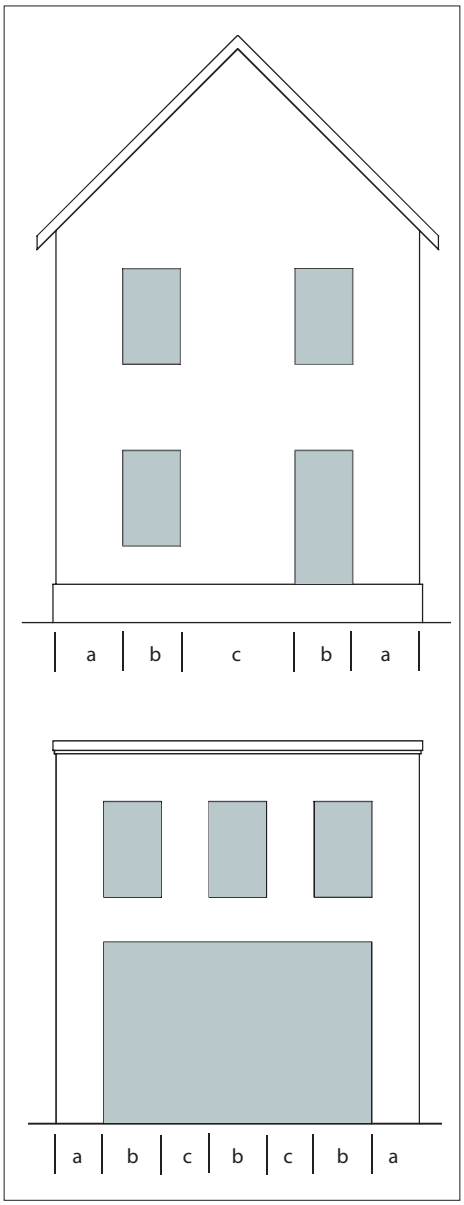
   Note: Update window section with information on replacement windows, true divided light, simulated divided light, etc.?

These historic shutters still retain their hardware and are operable, that is they are able to be opened and closed and are not just decoration.

VII Building Elements

A. Windows and Doors

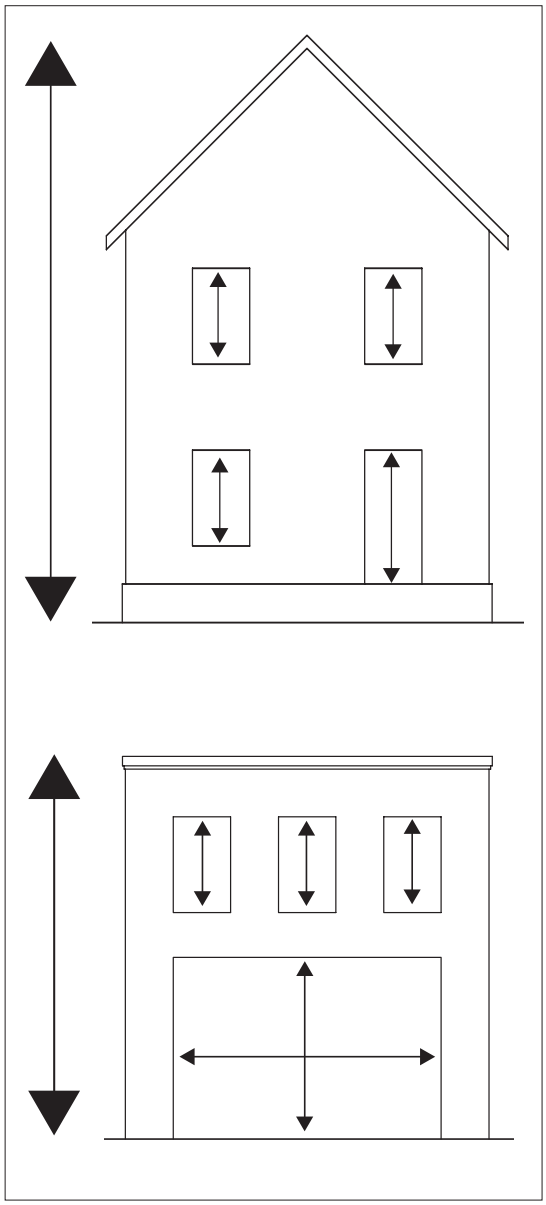




9. Respect the ratio of walls to openings (windows and doors) evident on adjacent historic facades. Generally, historic buildings have more wall area than window area.

10. Place windows and doors on the facades of new buildings in a rhythm or pattern that relates to the way that openings are placed on historic buildings.

A. Windows and Doors



The relationship between the height of an opening and its width creates directional expression or proportion.

Windows can be placed in regular intervals or in asymmetrical patterns and can be used to highlight various bay divisions in the building.

On commercial buildings, the upper facade contains windows that help to define the character of the building and reinforce the pattern of openings in the street wall of the entire block.

11. Use proportions (horizontal or vertical) that are similar to and compatible with the proportions of windows and doors on surrounding historic facades.

VII Building Elements

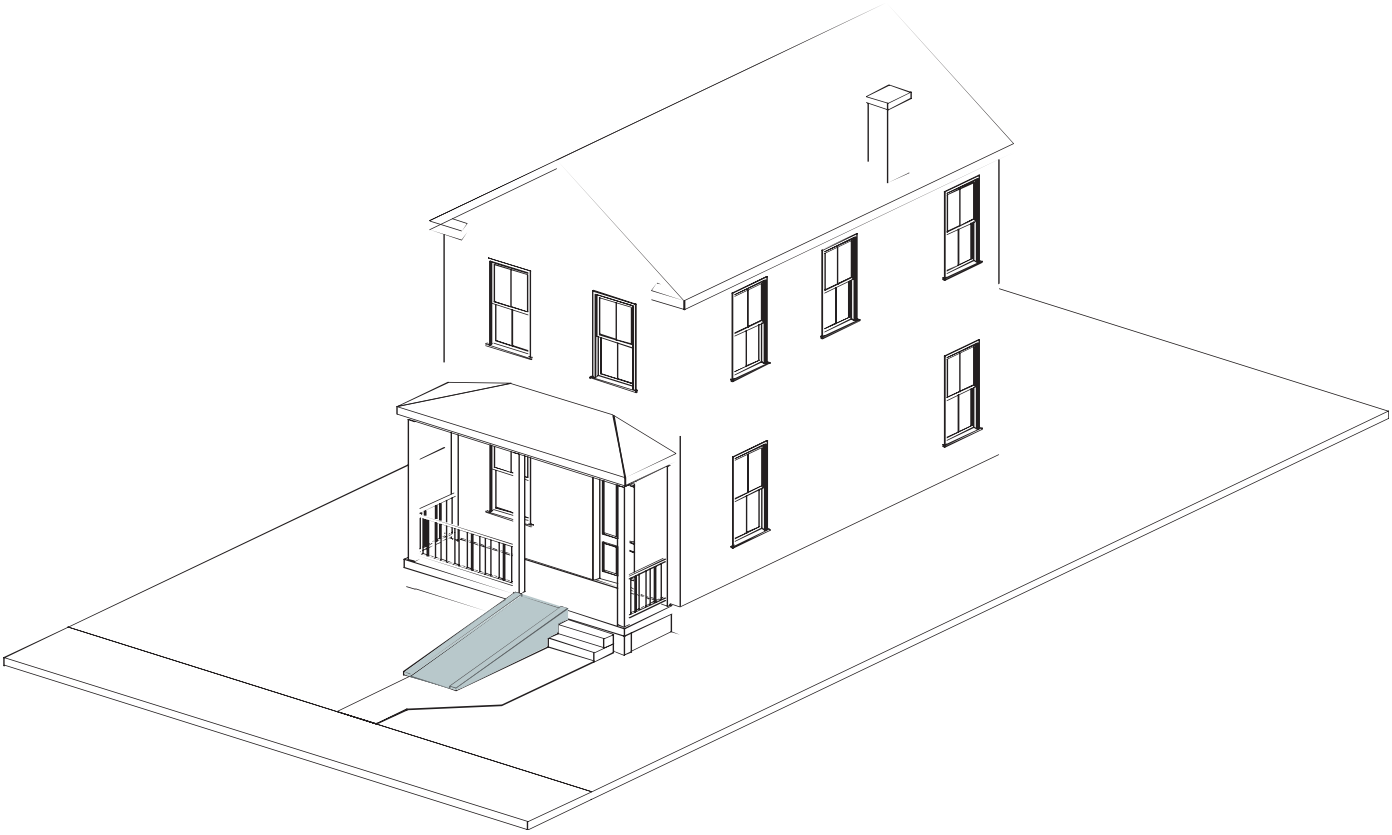
A. Windows and Doors

12. In public buildings, provide barrier-free access through removable or portable ramps that alter the historic building as little as possible.

Preservation Brief #32

Making Historic Properties Accessible

available from:
www2.nps.gov/tps/briefs/presbhom.htm



Portable Barrier-free Access

B. Porches

1. Retain porches that are critical to defining a specific building's design and the integrity of the overall Smithfield district. Porch types found in Smithfield are described on the next page.
2. Do not strip entrances and porches of historic materials and details, such as columns, balusters, or trim.
3. Repair damaged elements of porches by matching the materials, methods of construction, and details of the existing original fabric.

Elements of a Victorian Porch

Entrances and porches are often the primary focal points of a historic building. Their decoration and articulation help to define the style of the structure. Entrances are both functional and ceremonial elements. For residential buildings, porches have traditionally been a social gathering place as well as a transitional area between the exterior and interior.

VII Building Elements

B. Porches

Porch Types

Full-width, one-story porches are the most common type of porch in the Smithfield district and appear on 58 percent of the houses. Columns and decorative details vary according to style.

Some details reflect classical elements. Victorian porches usually display ornate sawn and carved details. In bungalows, the porch is carved out of the volume of the house. Many of the houses that have full-width porches are simple vernacular structures without very much decoration.

Secondary porches on the side or rear of the building can be one or two stories. Sometimes they are closed in to form new spaces like pantries or sun rooms. Some Colonial Revival houses have a side porch but no front porch.

Porticoes are found on Federal and Colonial Revival houses and are identified by their columns and classical details. Eleven percent of the houses in the district have porticoes.

Wraparound porches on Victorian-era houses are extensions of the front porch that wrap around the side of the dwelling. Especially common in the Queen Anne style, they are included on 12 percent of the houses.

Wrap Around.

Full Width.

Secondary Porch.

Portico.

4. Include porches on new residential construction. Nearly all of the district residences have porches, and new porches should reflect the size, height, and materials of porches on historic buildings on the street.
5. Replace porch elements or the porch itself only if the materials are too deteriorated to repair or are completely missing. New elements should match the original as closely as possible. Avoid replacing wooden steps with concrete or brick steps or wooden posts with decorative iron supports; also avoid adding "Colonial" decorative elements, such as broken pediments, columns, and pilasters, or replacing porch piers with a continuous foundation.
6. Do not remove entrances and porches important in defining the building's overall historic character. Give more importance to visible front and side porches than to rear porches.
7. Do not enclose porches on primary elevations; avoid enclosing porches on secondary elevations in a way that radically changes the historic appearance.
8. Do not add a new entrance or porch to a primary elevation where it never had one before.

New residences in the historic district should have porches based on historical precedent.

Original porch.

Inappropriately remodeled porch.

Inappropriately removed porch.

Inappropriately enclosed porch.

VII Building Elements

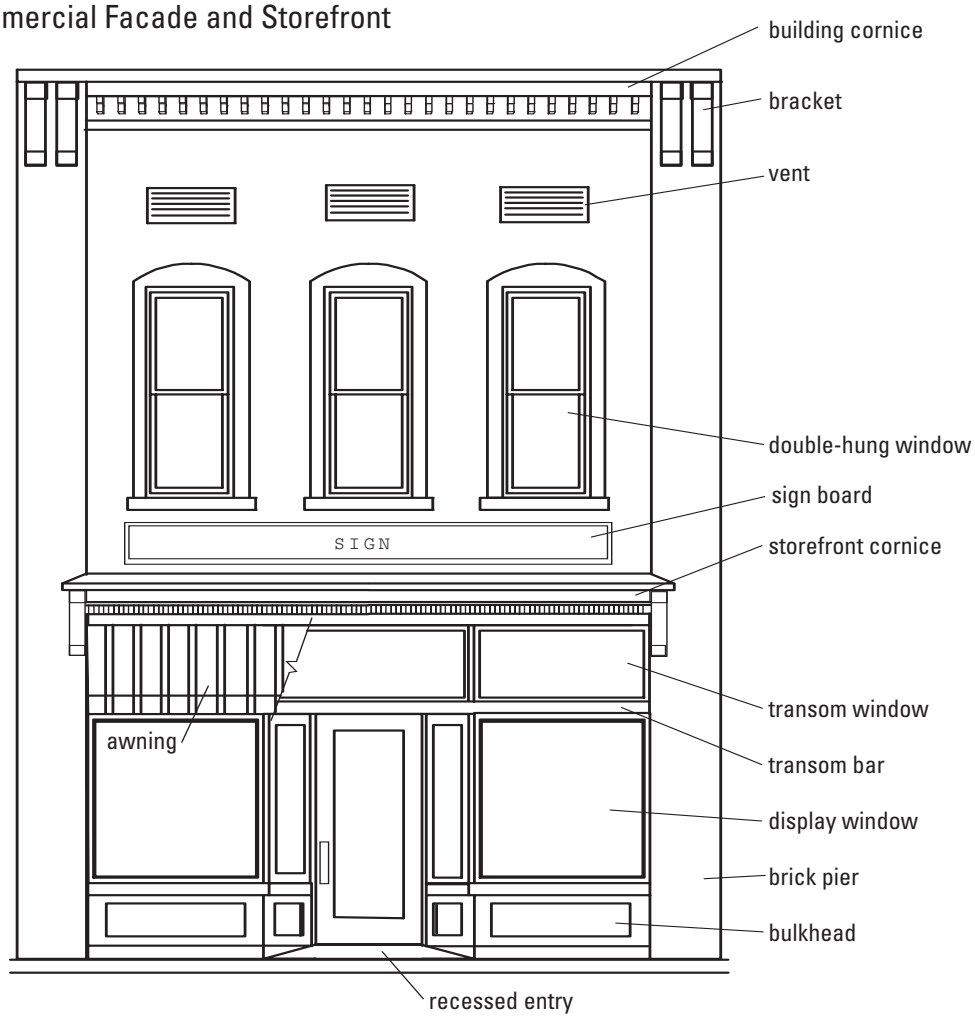
C. Storefronts

Typical Elements of a Commercial Facade and Storefront

Cornice
The cornice decorates the top of the building and may be made of metal, masonry, or wood. Some decorative cornices project from the building while an ornamental band delineates others. The top of the wall may have a patterned brick band or may have a coping of brick, concrete or metal.

Upper Facade
Upper facades are characterized by smaller window openings that repeat on each floor. These windows may vary in size, type, and decoration but usually are the same for each floor. Other facade details may be present on the upper level facades such as brick banding, corbelling, metal grilles or decorative panels.

Storefront
The first-floor storefront is transparent and is framed by vertical structural piers and a horizontal supporting beam, leaving a void where the storefront elements fit. The storefront elements consist of an entrance to the upper floors. Later buildings may lack several elements of traditional storefronts such as transom windows or decorative details.



Many of the traditional storefronts in the downtown date from the turn of the century. To determine what type of storefront your building has, conduct pictorial research to find the appearance of the original storefront or early changes.

Building Elements VII

C. Storefronts

1. Retain all elements, materials, and features that are original to the building or are sensitive remodelings and repair them as necessary.
2. Remove any inappropriate elements, materials, signs, or canopies that obscure original architectural elements. Covering up windows, cornices, decorative features, or significant portions of the wall alters the building's proportions and changes its appearance.
3. Conduct exploratory demolition to determine what original elements remain and their condition.
4. Restore as many original elements as possible, particularly the materials, windows, decorative details, and cornice.
5. Reconstruct missing elements (such as cornices, transoms, and bulkheads) if documentation is available. Otherwise, design new elements that respect the character, materials, and design of the building.
6. Avoid using materials and elements that are incompatible with the building or district, including aluminum-frame windows and doors, natural aluminum panels or display framing, enameled panels, textured wood or artificial siding, wood shingles, mansard roofs, metal awnings, coach lanterns, small-paned windows, plastic shutters, inoperable shutters, or shutters on windows where they never previously existed. False historical appearances like "Colonial," "Olde English," or other theme designs, should not be used.
7. When designing new storefronts or elements for storefronts, conform to the configuration and materials of traditional storefronts. Keep the ground levels of new retail commercial buildings at least 80 percent transparent up to a level of 10 feet.

The original character of a historic commercial building is often lost when features and elements are covered up or removed from a facade.

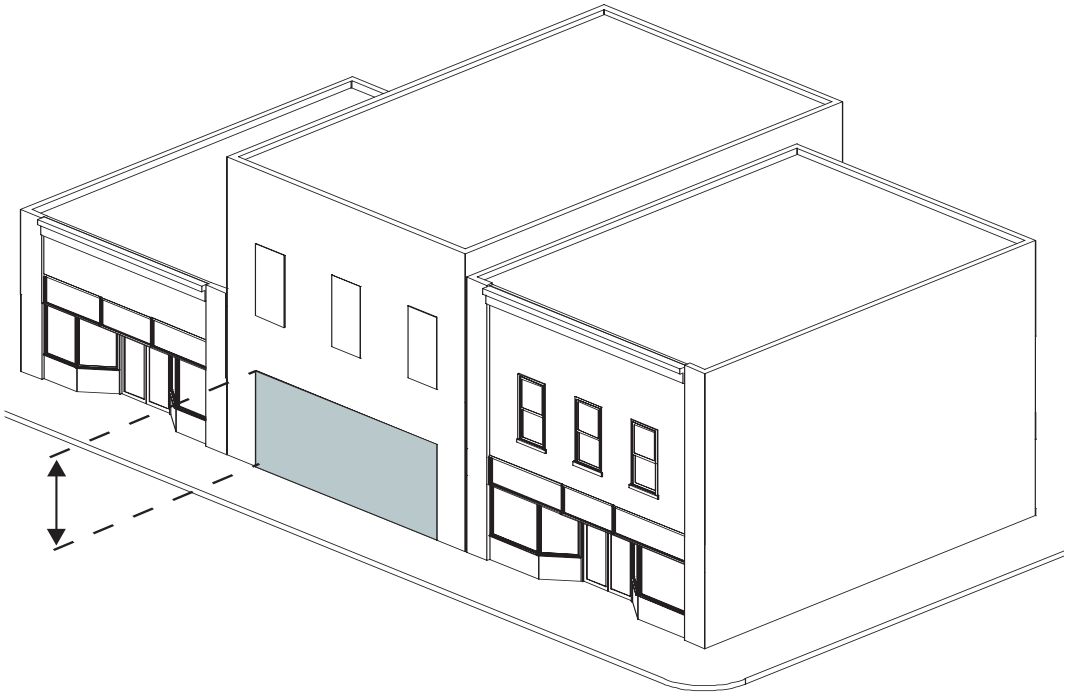
Preservation Brief #11

Rehabilitating Historic Storefronts

available from:
www2.nps.gov/tps/briefs/presbhom.htm

VII Building Elements

C. Storefronts



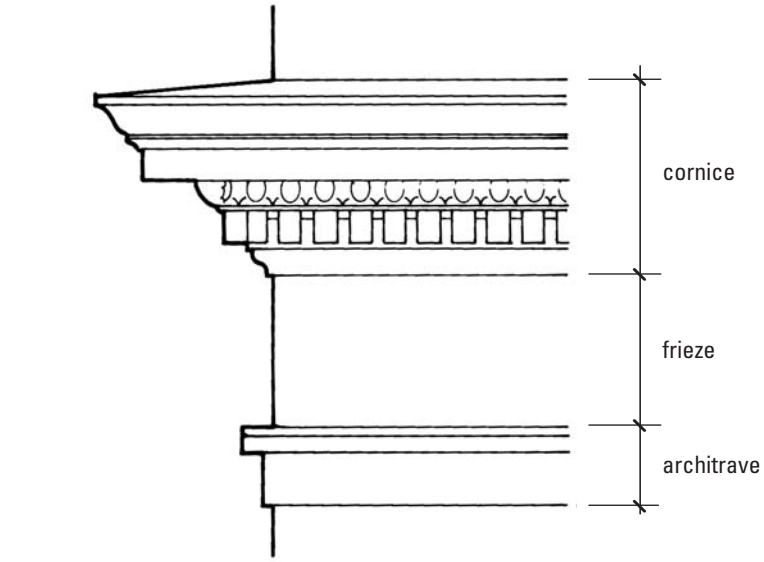
The ground level of retail commercial buildings should be 80 percent transparent up to 10 feet in height.

Consider articulating the facade of office/institutional buildings with bays as seen in local examples.

Building Elements VII

D. Cornices

A residential classically decorated cornice with modillion blocks and intricately carved fretwork.



1. Retain existing cornices that define the architectural character of historic buildings.
2. Repair rather than replace existing cornices. Do not remove elements that are part of the original composition without replacing them in kind. Match original materials, decorative details, and profiles.
3. Do not replace an original cornice with one that conveys a different period, style, or theme. If the cornice is missing, the replacement should be based on physical evidence or, barring that, be compatible with the original building.
4. Include cornices in the design of new commercial buildings, particularly if they abut historic buildings with cornices. Choose designs and materials that complement cornices in the district.

Cornice Elements: Residential Cornices

Boxed eaves are simple cornices on buildings with pitched roofs. The rafter ends and the eaves are boxed in with wood.

Exposed eaves are often found on bungalows. The structure of the roof is expressed and the rafter ends are decorated and exposed.

Decorated cornices use details such as brackets, modillion blocks, dentils, egg and dart molding, and friezes. On residences, the decorative pieces usually are shaped from wood.

VII Building Elements

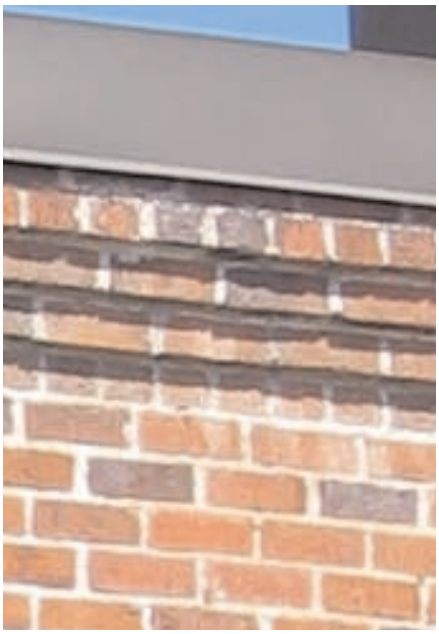
D. Cornices

Cornice Elements: Commercial Cornices

Decorative brick bands are common in Smithfield's commercial district. The upper part of the facade is decorated with a masonry pattern, either flat or projecting (called corbelled).

A **coping** is a decorative and protective cap at the top of a parapet wall or any wall that does not have a cornice. Materials used for copings in the district include concrete and, metal. Ceramic tile and brick also could be used.

Decorated cornices include features such as brackets, dentils, egg and dart molding, and friezes. Such cornices can be shaped from a variety of materials. Many cornices on commercial buildings are metal.



Decorative brick bands and coping.

Decorative metal cornice.

Cornice placement on new commercial construction should reflect historical precedent.