

Chapter 3

Maintenance, Repair, Preservation and Restoration of Existing Historic Buildings

Introduction

These design guidelines are intended to provide standards for a range of treatments to existing historic buildings within the Dover Historic District zone. It is hoped that while these guidelines will both suggest and require certain historic preservation practices, they will also educate the property owners of Dover as to the proper maintenance and care of their historic buildings.

These guidelines are a part of the process of raising the preservation 'consciousness' of Dover, a City with a very strong sense of its own history and a very strong desire to preserve its history. These guidelines are merely a tool by which Dover may preserve itself. Just as a city changes, so do ideas through which the citizens and government of Dover approach preservation. These guidelines will promote a certain sophistication to the level of discourse within the City regarding historic preservation, and that discourse will soon outreach these guidelines, requiring their revision. This is all a part of the process of preservation.

Because of the diversity of architectural periods, styles, building types and neighborhoods found in Dover, and because it

is not possible to write a recipe for good design, these guidelines are intended to be as flexible as possible. The flexibility of these guidelines recognizes that there are several solutions to most problems. Further, it is a fact that while one solution may be favorable over another, there may be circumstances, financial or otherwise, that make a particular treatment difficult or impossible to undertake. These guidelines thus recognize the financial constraints on any homeowner and that the favored preservation practice may be beyond the means of some homeowners.

The flexibility of the guidelines is linked to the building permit process. For most types of treatments, guidelines are grouped under the categories of "Recommended," "Not Recommended," and "Inappropriate." Guidelines that are "Recommended" represent the best preservation practice, that is, those treatments that are most respectful of existing historic fabric. Projects that follow the "Recommended" guidelines should receive an Architectural Review Certificate with little or no comment. Projects that employ treatments that are "Not Recommended" may or may not receive an Architectural Review Certificate, depending upon the evaluation and

determination by the Historic District Commission of the overall impact of those treatments on the character of the structure and the Dover Historic District zone as a whole. Projects that employ "Inappropriate" treatments should not receive an Architectural Review Certificate, unless there are extenuating circumstances that warrant approval.

The diversity of neighborhoods and building types within Dover has determined that another kind of flexibility be written into the guidelines. As discussed in Chapter 2, four historic contexts have been identified, each with its own preservation recommendations. There is a certain amount of overlap in the design guidelines to be followed within each district; mortar for repointing should always be as soft as existing historic mortar, for instance. There are also guidelines that are specific to individual historic contexts; vinyl siding is "Not Recommended" in the Victorian Context, but it is 'Inappropriate' within the Green, Loockerman and Capitol Square Contexts. These context-specific guidelines recognize that there are different preservation objectives for different parts of the Dover Historic District zone. They also recognize that more flexibility may be required in areas that contain low and middle income homeowners.

These guidelines recognize that healthy cities grow and change, that Dover will continue to grow into the 21st century, and that it is not, nor should it be, the intention of the City to restore Dover to an earlier period of time. These guidelines are based in the commitment that growth and change must be complementary to historic preservation, and vice versa. While preservation sometimes conflicts with growth and change, it has been the widespread experience in towns, small

cities and large cities around the United States that a downtown with a unique historic character will attract new development. Conversely, the financial resources that new development bring to a city or town can support the goals of historic preservation by providing jobs that make home ownership possible, attracting shoppers to local businesses, and contributing to the tax base.

These guidelines attempt to establish a balance between the mandate to preserve the historic character of Dover and the compelling forces of new development. A successful balance will be mutually beneficial to both preservation and new development.

The Design Guidelines for maintenance, repair, preservation and restoration of historic buildings presented here are intended to preserve the distinct historic character of the Dover Historic District zone. The preservation of the historic character of the District is largely a function of the preservation of the existing historic building fabric. Therefore, these guidelines stress the retention, repair and proper maintenance of existing historic architectural fabric.

The preservation philosophy underlying these guidelines is based on the *Secretary of the Interior's Standards for the Rehabilitation of Historic Buildings* that are discussed in detail in Chapter 2 of this document. Those standards may be summarized as follows:

- The proper maintenance of historic building fabric underlies any recommendations with regard to historic preservation.
- It is always preferable to retain and repair existing historic building fabric, rather than replace it with new materials.

- When replacing historic building materials that are irreparably deteriorated, replacement should be in-kind, using materials and craftsmanship that match as closely as possible the existing historic fabric that is being removed.
- Restoration (returning a building to a specific, previous condition or appearance) should be undertaken only when sufficient documentation or evidence exists to determine historic conditions at a specific, significant period of a building's history. Because history accrues to buildings over time, it is recommended that later historic fabric should not be removed in order to restore a building to an earlier appearance.
- When adequate documentation is not available to restore a building accurately to a previous appearance, and the building has lost its historic integrity, speculative restoration should not be attempted. Rather, it is recommended that a contemporary design be developed that will be sympathetic and complementary to the existing building or adjacent structures.

Doors, Windows, and Shutters

Introduction

Doors, windows and shutters are the moving parts of building exteriors. As such, they are subject to hard and frequent use. They are also critical elements in regulating the passage of light, air, rain and people into the interior of the building.

These elements are also critical in determining the architectural character of individual

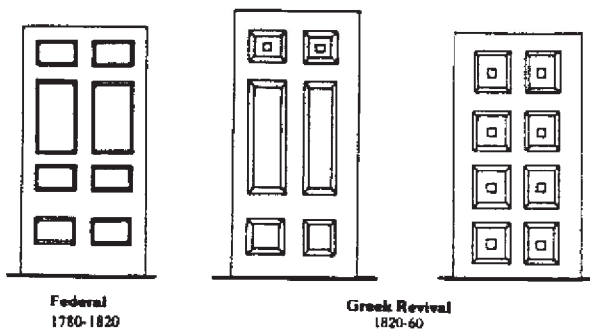
buildings. The correct preservation of existing historic doors, windows and shutters as well as the appropriate design of their replacements is absolutely essential to the maintenance of the character of individual buildings and their context within a historic district.

The repair and replacement of existing original or historic doors, windows and shutters should be in-kind, that is, to match existing conditions as close as possible. Attention should be paid to the size, species and profile of the piece or element requiring repair or replacement. Custom millwork may be required if stock millwork matching existing conditions is unavailable. Replacement of existing non-historic doors should be appropriate to the age and character of the building.

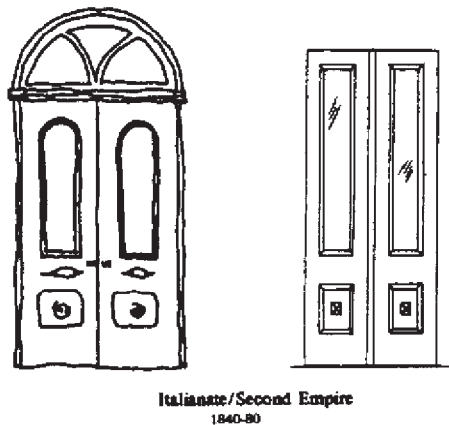
Doors

Paneled doors have been used during every period of Dover architecture, and in every building type found in the four historic contexts. The technology to produce flush doors is a very recent phenomenon, having mostly to do with the development of inexpensive glues. Panel trim and moldings have varied over time as have the configuration of the panels and the use of glazing in the panels.

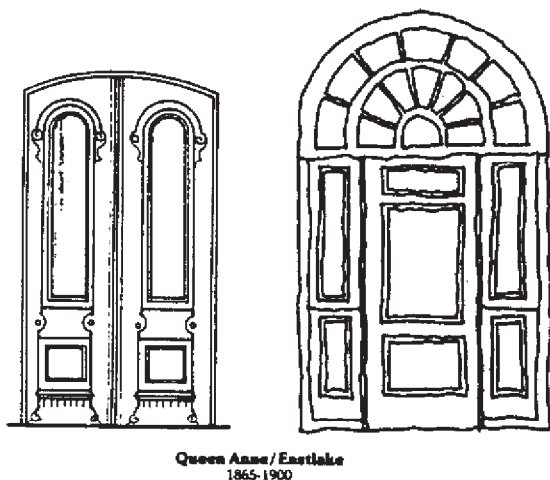
Typically, Federal style residential doors were divided simply into several rectangular panels in two sizes. The molding profiles on Federal style doors were usually limited to simple beads. Greek Revival doors tend to be highly stylized with the repetitive use of one panel size, often a square. Panel moldings are flat and a vertical center bead used occasionally to simulate two doors. Opening surrounds often had splayed trim.



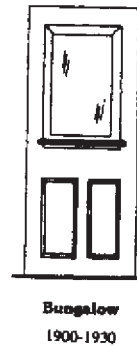
Italianate and Second Empire style residential doors were more ornate with elongated vertical panel shapes, glazed upper panels and deeper and more complex molding profiles.



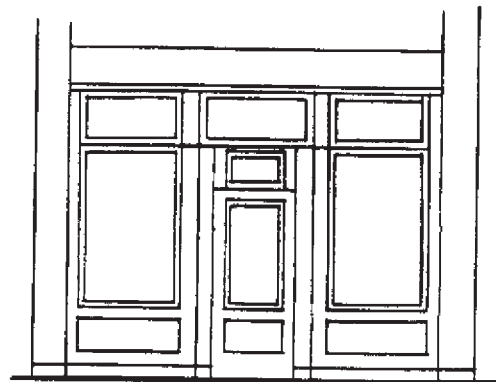
The Queen Anne and Eastlake styles of residential architecture introduced further levels of ornament, including gouged, carved and incised profiles, sometimes with arched and curved panel shapes.



The overall simplicity of the Bungalow style is evident in the design of doors. Bungalow doors were often single glazed doors with simple raised panels. Paneled doors also continued to be prevalent and had 4, 5, 6, or even 8 panels.



The design of doors for commercial establishments, such as those that are on Loockerman Street, typically remained consistent during the late 19th and early 20th centuries. Shop doors were either single or double doors, often with a transom above. The doors themselves were usually paneled below with a glass pane inset above. Steel and bronze frame storefront 'systems' began to appear after 1920. For a further discussion of doors for commercial buildings, see the discussion of storefronts and signage in Chapter 5.



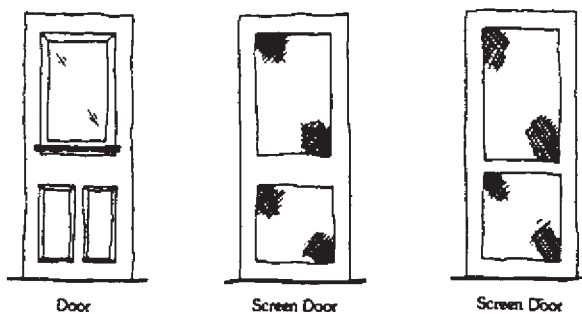
Typical design for late-19th/early-20th century storefront

Doors in the Capitol Square context have been and should remain wood panel doors.

Design Guidelines for doors are as follows:

Recommended

- Retain and repair as much historic door fabric as possible. Repair should be in-kind, to match existing size, species, profile and configuration.
- If existing historic doors or screen doors are deteriorated irreparably, replace in-kind, to match existing size, species, profile, and configuration.
- Replace inappropriate doors with doors appropriate to the period and style of the building.
- Screen and storm doors should be wood and kept as simple as possible, except in the cases of Queen Anne and Eastlake styles, which may be more elaborately composed and detailed. Except for screen doors that are a part of a screened porch enclosure, horizontal and vertical rails of screen doors should align and coincide with those of the door behind.

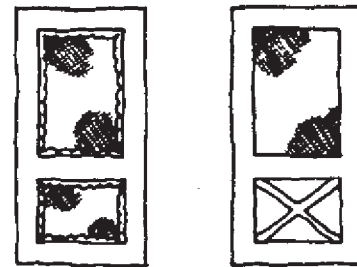


Screen Doors To Align With Doors

- Storm doors that are designed to have one large opening and that allow the door behind to be visible are recommended.

Not Recommended

- Aluminum doors and aluminum screen doors are not recommended in the Victorian and Loockerman historic contexts and in the Capitol Square context.



Not Recommended

Inappropriate

- Modern flush doors are inappropriate on the exterior of buildings within the Dover Historic District zone.



Inappropriate

- Doors of an earlier (or otherwise inappropriate) style than the building are inappropriate.
- Glazed doors containing windows with snap-in muntins or masking tape to simulate divided lights are

inappropriate in the Dover Historic District zone.

- Enclosure of existing transoms and sidelights is inappropriate.
- Aluminum doors and screen doors are inappropriate in the Green historic context.

Windows

The history of window design, until recently, can be seen as a continuous attempt to increase the size of glazed openings. Thus throughout the 19th century (especially in commercial design), opening sizes increased, glass panes got larger, and muntins got thinner. Only the Colonial Revival represents a significant departure from this trend, in which a compromise was struck between the large sheets of available plate glass and the 6-light sash with thick muntins common in Colonial buildings. The compromise was reached in the 6-over-1 window.

Although dimensional tendencies vary, the following is a rough guide to the increase in size of individual glass panes through the first half of the 19th century:

- Colonial 6" x 8" (1600-1700)
- Georgian 8" x 10" (1700-1800)
- Federal 8" x 10", 11" x 14", 11" x 16" (1780-1820)
- Greek Revival 11" x 16", 11" x 18", 12" x 20" (1820-1860)

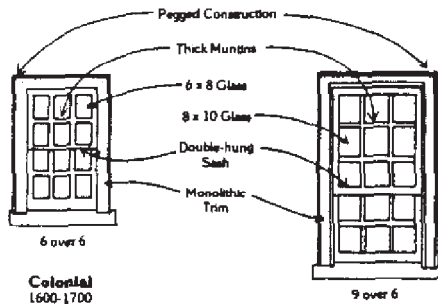
Early window casing was usually planed out of one piece; built-up moldings became commonplace in the Federal period and were virtually standardized by the end of the 19th century.

Typically, there was a wider range of sizes available in any given period, so the above summary should not be considered to be without exception. It is generally the case, however, that windows in any given period were proportioned so that the width was roughly 3/4 that of the height.

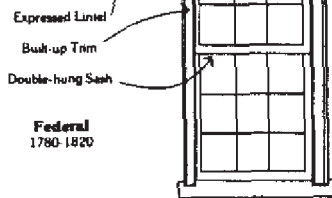
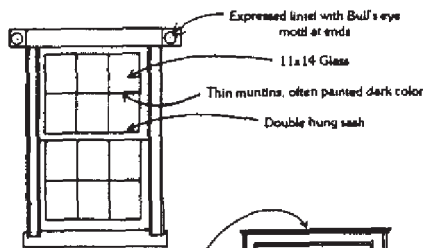
The following Design Guidelines should provide information relevant to deliberations of the Historic District Commission when considering applications for Architectural Review Certification in the Dover Historic District zone in which existing windows are affected.

Recommended

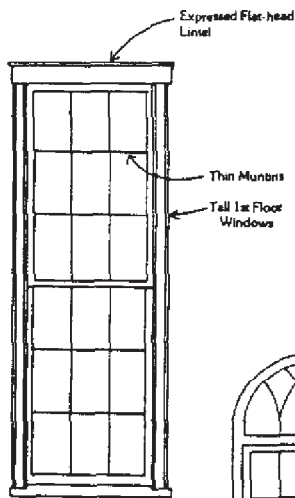
- Repairing existing historic windows with in-kind materials is always preferable to replacing windows.
- When existing historic windows are irreparable, replacement windows should replicate as closely as possible existing historic window details, including pane configuration and muntin, mullion, casing and trim profiles.
- Replacement windows should have the same operating characteristics as the original windows (i.e., double-hung windows should replace double-hung windows, casement windows should replace casement windows, etc.).
- Use only clear glass in existing historic or replacement windows.
- Window opening sizes and shapes should not be changed to accommodate replacement windows.



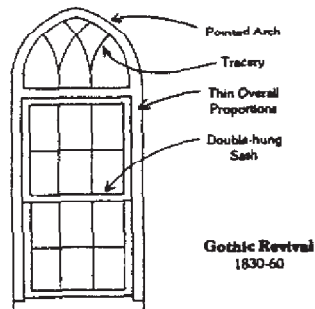
Colonial
1600-1700



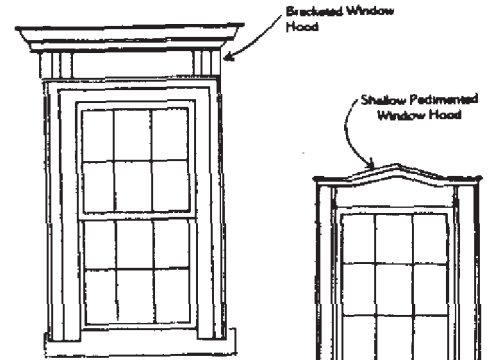
Federal
1780-1820



Greek Revival
1820-60

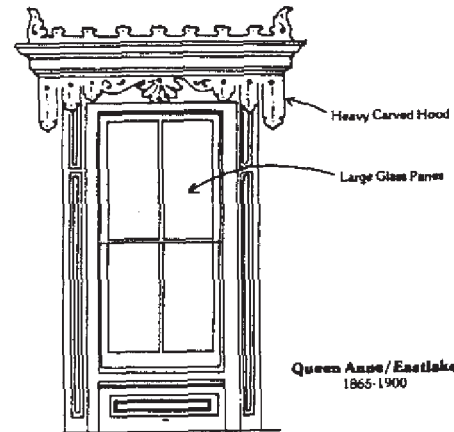
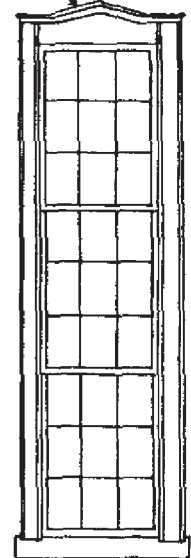
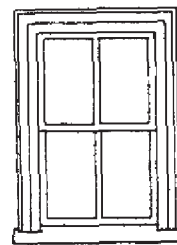


Gothic Revival
1830-60

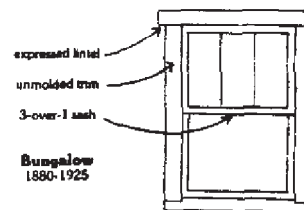
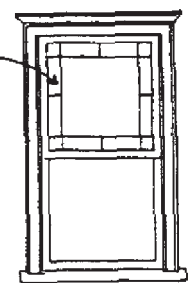
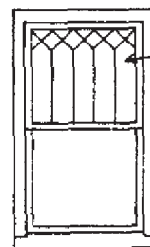


Tall, Thin 1st Floor Windows

Italianate
1840-80

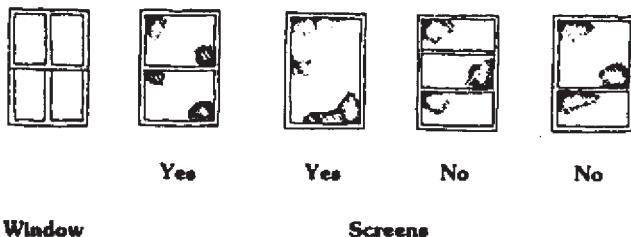


Queen Anne/Eastlake
1865-1900



Bungalow
1880-1925

- Historic stained or leaded glass should be repaired or restored. This work should be accomplished by a trained leaded glass artisan, using the gentlest means possible. If leaded glass panels are irreparable, and if restoration is not possible, they should be removed and stored in a manner that will allow future restoration.
- The rails of window screens and storm windows should match the rails of windows behind.



- New awnings should be attached in a manner that does not harm the existing building and should be of fabric and not of rigid material.

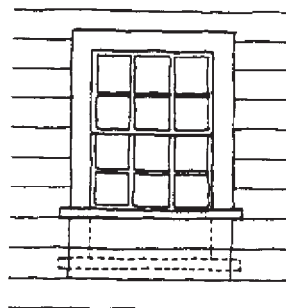
Not Recommended

- Replacing windows that are restorable is not recommended.
- Air conditioners should not be inserted in windows on the primary facade of buildings in the Dover Historic District zone.

Inappropriate

- Window opening sizes and shapes should not be changed to accommodate replacement windows or

to accommodate new interior furnishings or cabinetry.



Inappropriate Altering of Window Opening

- Contemporary picture windows are inappropriate in the Dover Historic District zone on buildings built before 1940.
- False muntins for divided lite wood windows are inappropriate. They are easily detectable from a distance.
- Smoked, tinted or reflective glass is inappropriate in existing historic or replacement windows.
- Slider windows are inappropriate.

Shutters

Wood shutters are quite common on houses in the Victorian and Green historic contexts. Although few people presently put them to their intended use, their original purpose was to provide security and privacy, to permit ventilation while keeping rain and sunlight out, and acting as storm sash during heavy rains. Presently, shutters are most often fixed in place and serve as attractive elements in the designs of the facades of the residences of the Dover Historic District zone.

Not Recommended

- Metal chimney caps generally are not recommended, especially on 18th and early 19th century chimneys. They are primarily mid-20th century developments.

Inappropriate

- Do not sandblast masonry for any reason.
- Do not change the size or tooling profile of the mortar joint when repointing brick.
- Prior to repointing, do not remove existing mortar with power equipment. Remove existing mortar using hand tools narrower than the width of the masonry joint.
- Do not use modern "antiqued" brick for new construction. It is too regular in its contrived variability, and easily distinguished by the discriminating eye.
- "Over cleaning" of brick with harsh chemicals and/or excessive water pressure will do more harm than good to the brick.
- Do not use masonry sealer, which traps moisture inside masonry walls, preventing them from breathing.

Walls: Wood Siding and Trim

Wood siding is the "skin" of a building. Its purpose is to shed water quickly and

thoroughly, thus preventing decay of the underlying structure and the deterioration of interior finishes, and to deflect sunlight and wind. Siding also plays an important visual role in establishing the scale of the building. Each clapboard or shingle casts a shadow line, adding some visual depth to the wall surface, while the size of the clapboard or shingle visually affects the mass and proportions of each building.

Directly associated with the wood siding, and with masonry as well, is the exterior trim of the building. Wood trim serves a critical visual purpose by providing architectural ornament and a functional purpose by sealing the structure at vulnerable locations. Corner boards, fascia boards, window caps and trim, architraves, and cornices are examples of trim elements that protect critical joints of a building from exposure.

The following guidelines for the repair, maintenance, restoration or rehabilitation of wood siding and trim are as follows:

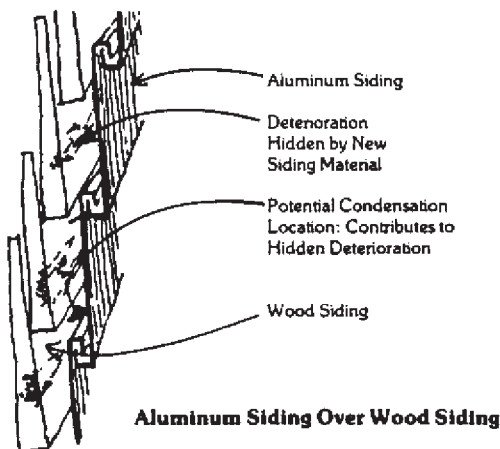
Recommended

- All siding and trim should be retained and repaired. For areas of partial deterioration, techniques utilizing in-kind and visually matching patches are preferable to total replacement, in the interest of retaining as much historic material as possible.
- If siding is severely deteriorated and re-siding is proposed, it should be done with horizontal siding or cedar shingles to match existing. Vertical siding is a more modern intrusion and would be more appropriate to secondary structures such as sheds and outbuildings.

- Existing historic asphalt shingle siding should be repaired and replaced in-kind, where it is character defining.
- All wood siding and trim should be painted.

Not Recommended

- Aluminum siding is not recommended for use on new or existing buildings in the Victorian historic context of the Dover Historic District zone, for reasons that have to do with its potentially destructive tendency to hide deterioration and to trap moisture against the existing wood siding. It also has a significant negative visual impact, in that it conceals historic fabric.



When it is proposed for use on existing buildings, steps should be taken to minimize its impact, such as:

Retain and leave exposed the wood trim at windows, doors and corners. Siding should butt the trim. This may require the removal and furring out of existing trim, in order to be in the correct plane in relation to the siding. This work should be accomplished in a

manner that will not damage existing trim.

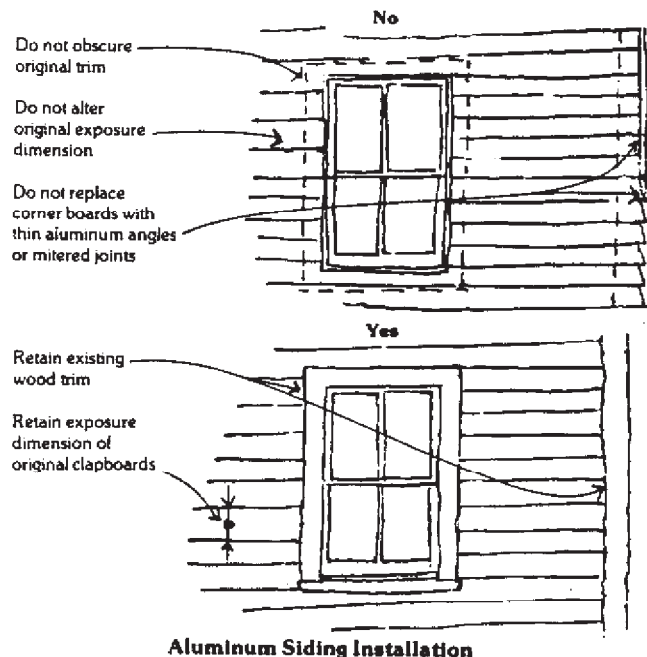
Retain and leave exposed decorative elements such as brackets, spindle work, cornices, etc.

If corner boards cannot be retained, use an aluminum corner that duplicates the width of the original corner board.

Do not use pastel or "ranch house" colors.

Match the width of the original wood siding; i.e. 4" exposure wood siding should be covered with 4" exposure aluminum siding.

Maintain constant ventilation to the inside surface of the aluminum siding. The effects of the condensation that will otherwise result will be prolonged, serious and invisible.



- Vinyl siding is not recommended for use in the Victorian Historic context of the Dover Historic District zone. Its

sheen is noticeable and it is nearly impossible to install without covering up or obliterating original architectural details. Its seams are visible, it tends to warp and deflect with changes in temperature, and its color will fade noticeably over time. It also traps and hides potentially damaging moisture within the walls of the house.

If it is proposed for use, certain steps must be taken to mitigate its effects:

Vinyl siding should be installed to allow ventilation to occur between it and the underlayment below.

Vinyl siding that is embossed with artificial wood grain should not be used.

Existing details at corners, windows, doors, eaves and elsewhere should not be covered over and in no case should they be removed or altered.

Match the width of the original wood siding.

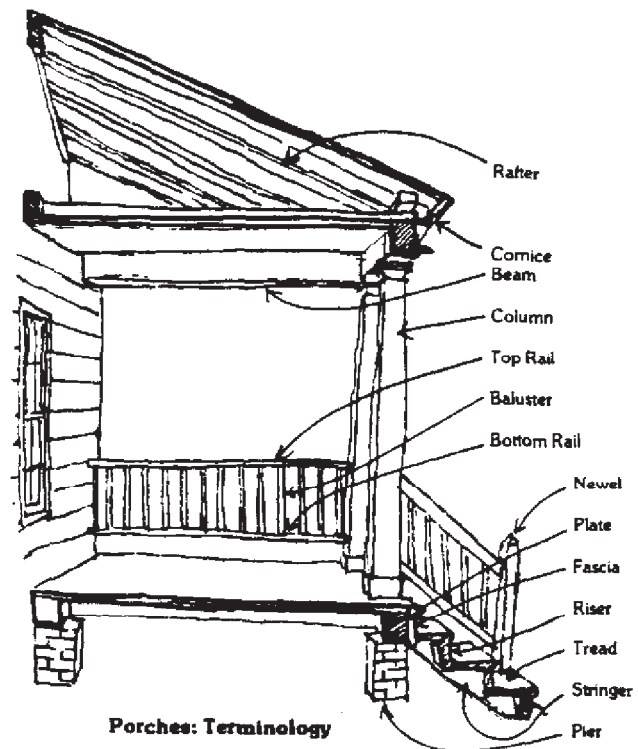
Inappropriate

- Vinyl siding is inappropriate for use on existing buildings in the Green and Commercial historic contexts and in the Capitol Square context of the District. Its sheen finish and artificial wood grain are easily visible. Details and installation are difficult to make compatible with the historic character of these contexts within the Dover Historic District zone.
- Wavy-edged shingles are inappropriate.

- Textured plywood (T-111) vertical siding should not be used on primary structures within the Dover Historic District zone.

Porches and Steps

Porches are critical architectural elements on many of the residential streets in the Dover Historic District zone. The porch is a unique outdoor living area that belongs to the house but partakes in the life of the street. The full extent of its lightweight structure and fine detailing is fully exposed to the weather, requiring the maintenance and repair of porches to be a constant process. The proper design of porches entails more than the correct architectural elements, proportions and materials, and includes proper construction detailing. This is true for all porches, whether they are historic or part of new construction.



Steps nearly always extend beyond the roof line of buildings or porches and are thus exposed to the weather even more than porches. Steps are an important part of the streetscape, setting up rhythm and regularity. Proper detailing is as important to the correct design of steps as is the use of appropriate materials and style.

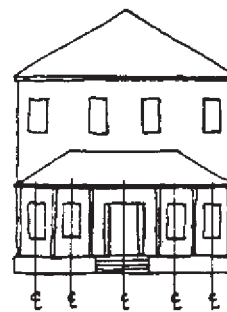
The following guidelines should assist with recommendations of the Historic District Commission when considering applications for Certificates for Architectural Review in the Dover Historic District zone in which porches are affected or proposed:

Recommended

- Retain as much existing historic porch fabric as possible. Repair with in-kind materials, almost always wood, with profiles to match existing as nearly as possible.
- The porch floor should be even with or a maximum of one-step below the corresponding floor of the house, unless historic conditions suggest differently.
- Porch ceilings should be the same height as that of adjacent interior rooms. Porches with exposed rafters and deck should not have ceilings installed. When re-roofing, nails should not be visible below the underside of the deck.
- It is appropriate to construct a porch on a house that historically had a porch that has been subsequently removed. The design of the new porch should be carefully researched. If photographic or other good historic documentation is

available, it should serve as a literal model for the new porch. If no such documentary evidence is available, the new porch should be of a contemporary design that is compatible and complementary to the existing building, and consistent with the design of porches typical to the period of the house. New porches should not be built to look 'old' when no evidence exists for the original porch design.

- For new porches on houses where documentary evidence for a historic porch is not available, the rhythm of the porch bays, as established by the regularity of columns and openings, should match that of the solids and voids of the house behind.



Rhythm Of Porch
And House Bays

- For new porches on houses where documentary evidence for a historic porch is not available, the height of the bottom of the porch fascia board should be at or very near the height of the window head of the house. This will vary slightly because of the rich variety of Dover porches. The intention of this guideline is to prevent inappropriately proportioned porches. The design of fascia boards should be appropriate to the style of the house.
- All visible porch components should be painted wood, unless there is historic precedent for the use of

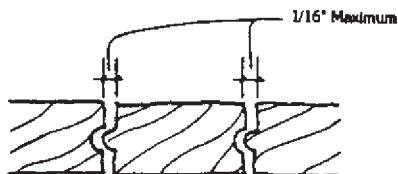
weathering wood such as cedar. Because of the amount of exposure to which wood porch components are subject, all painted parts should be "back-primed;" i.e., prime-painted on their concealed surfaces to discourage deterioration from moisture penetration.

- For new porches on houses where documentary evidence for a historic porch is not available, the porch should be at least 6' deep to allow comfortable seating. Maximum depths of porches are a function of the overall height of the house or porch ceiling.
- Leave open the spaces between porch piers so that ventilation can occur beneath the porch. This is best done using painted wood lattice or grillage.

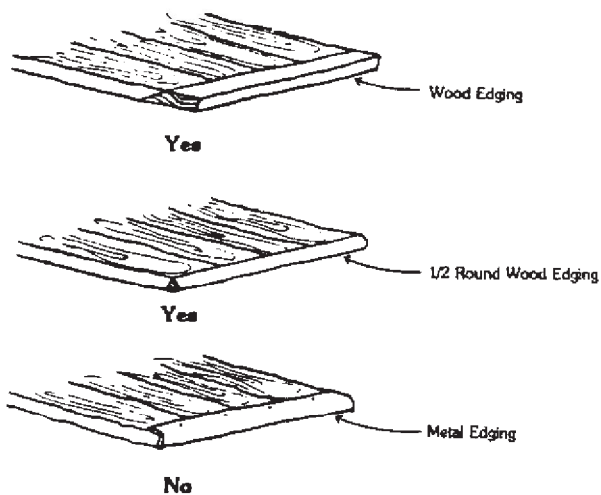


Lattice Infill At
Porch Piers

- Replacement porch flooring should match existing tongue and groove flooring with 1/16" maximum gap between boards to allow for expansion. Wood edging should be applied to the exposed ends of floorboards.

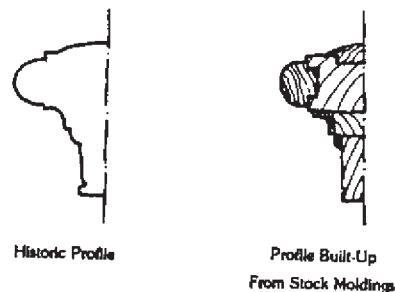


Tongue And Groove Flooring
With Gap For Expansion



Porch Floor Edge

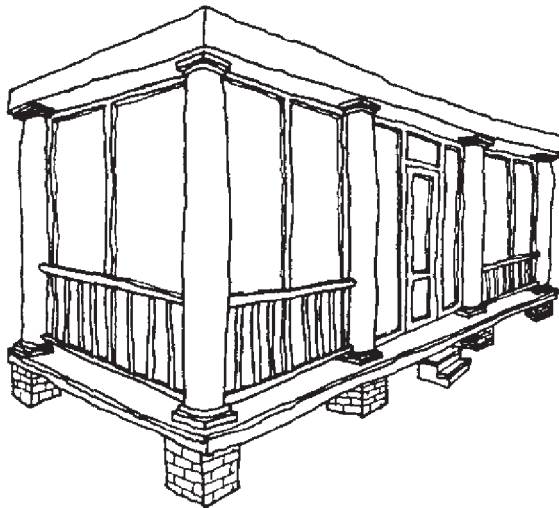
- Replacement porch railings should match existing as closely as possible. If a historic railing profile is not available, often a good replica may be constructed of a number of commonly available moldings.



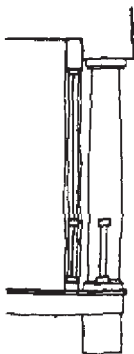
Replacement Porch Railings

- Porch columns should be retained or replaced in-kind, if beyond repair.
- For enclosures of side porches that are visible from the street, new construction should be placed behind the existing column and balustrade so as not to obscure existing architectural elements. The walls of the enclosure should reflect the massing, the relationship of solid-to-void, of the

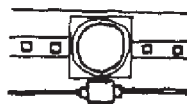
porch itself. This will require porch enclosures to have a large amount of glass. The wood framing of new porch enclosures should be painted a matte finish, a dark color compatible with the glass or screens. The color of the rest of the enclosure should contrast with the color of the original porch, to maintain the distinction between original and new construction.



Perspective View



Section



Plan

Details For Appropriate
Porch Enclosure

Not Recommended

- Use of composition and plastic moldings is not recommended.

Inappropriate

- It is inappropriate to add porches to the primary facades of historic structures that never had porches.
- It is inappropriate to remove the floor and framing of porches, leaving only the roof standing on columns.
- It is inappropriate to enclose porches on primary facades.
- It is inappropriate to use substitute materials, wrought iron piers should not be used in place of brick or wood columns.
- It is inappropriate to enclose the space between porch piers with continuous wood or masonry. This will discourage ventilation from occurring beneath the porch, hastening deterioration from moisture.
- It is inappropriate to add ornament to a porch from a style that is different from the house itself, unless there is historic precedent for it.
- Two-inch-thick boards are inappropriate for porch floors.
- Unpainted wood is inappropriate for use on porches in the Dover Historic District zone.

- It is inappropriate to replace porch columns with columns of an architectural order or character that is not compatible with the house.
- It is inappropriate to install a porch ceiling where none existed. The exposed rafters and deck are a part of the architectural expression of the porch. Care should be taken when re-roofing to use nails short enough not to protrude below the ceiling boards.

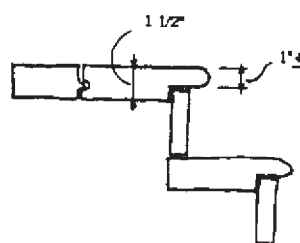
Steps

The prevalent materials of existing steps in the Dover Historic District zone are wood and brick. A few of the houses in the Green historic context and several of the government buildings and larger commercial buildings feature stone steps and stoops.

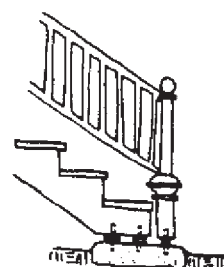
The following are guidelines that should assist with recommendations of the Historic District Commission when considering applications for Certificates of Architectural Review in the Dover Historic District zone in which steps are affected or proposed:

Recommended

- Wood steps should be retained or repaired in-kind. If replacement is unavoidable, it should be carried out by using wood of size, species and profile to match existing. Wood steps should be painted.
- If 2" lumber is used for treads on wood steps, the leading edge of the tread should be reduced to visually "lighten" the tread.



Detail For Reducing
Tread And Porch Floor
Edge Thickness



Stone Plinth For Wood Steps

- Wood steps and posts should not come in contact with the ground but should land on a stone or concrete plinth.
- Brick steps should be retained or repaired in-kind. In the residential context, brick steps may be a replacement for earlier wood steps. Thus, where brick steps are not integral to the design of the porch or house, wood steps may replace brick steps, but should be designed simply.
- Stone steps should be retained and repaired in-kind. Patching of existing stone steps should be of material to match existing. A concrete patch, tinted to match adjacent stone, is acceptable. If replacement is required, stone should be used.

Inappropriate

- Replacing wood steps with brick steps is inappropriate, unless there is historic precedent for it.
- Replacing historic stone steps is inappropriate unless the stone itself is unusable. Repairing stone steps is often a matter of re-setting existing