

# WINDOW REPAIR AND REPLACEMENT PRESERVATION AND DESIGN GUIDELINES



# **D.C. HISTORIC PRESERVATION REVIEW BOARD**





# WINDOW REPAIR AND REPLACEMENT PRESERVATION AND DESIGN GUIDELINES

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#### INTRODUCTION

Windows are one of the most important and integral character-defining features of historic buildings. They provide a sense of scale, craftsmanship, proportion and architectural styling. Windows are a building component that requires occasional maintenance or repair, or if extremely deteriorated, replacement.

This guideline is intended to provide property owners information on the technical and aesthetic considerations for window repair and replacement on designated historic property. It outlines the preservation and design principles applied in the review of this type of work to ensure that changes are compatible with the character of the property.

The Historic Preservation Review Board (HPRB) has adopted regulations regarding window replacement for historic property that are summarized in this document. The regulations (DCMR Title 10-C, Chapter 23) may be accessed at <u>www.preservation.dc.gov</u>.

## PRESERVATION GOALS AND CONSIDERATIONS

The city's preservation law establishes the fundamental purposes for the review of work affecting historic properties. These include *retaining and enhancing* historic properties, *ensuring that changes are compatible*, and *encouraging adaptation* of historic property for current use.

Design guidelines establish the principles for achieving these purposes. In giving more specific advice, these guidelines also reflect several considerations applied in the design and review of work affecting historic property. These considerations include:

#### *Visibility or prominence from the street:* Changes that are visible to the public are more likely to affect a historic property's character.

As a general rule, alterations on primary elevations prominently visible from a street should be more carefully considered, while greater flexibility is warranted for changes on secondary elevations that are minimally or not visible.

*Level of property significance:* Historic properties may merit different levels of treatment depending on their relative significance. Buildings of greater architectural or historical character may warrant more careful treatment. Changes to properties in historic districts are reviewed in the context of their relative significance to the district.

*Contextual and compatible design:* The design of features for historic property should display an awareness of and response to the specific qualities of the property.

**Quality of design and materials:** Historic buildings typically display a high quality of design and materials which should be retained. Special features that are custom designed or crafted, or that represent an unusual degree of styling or detailing warrant particular care and all reasonable efforts should be made to preserve or replicate them accurately. A more flexible standard may be applied to elements that were mass-produced, do not have distinguishing characteristics or that are easily replicable.

# *Temporary and additive change vs. permanent and destructive change:*

Alterations that are temporary or easily reversible have less of a lasting impact on the character of historic property than changes that permanently change, damage, or remove important features.

Achieving a reasonable balance: Adapting old buildings requires a thoughtful consideration of practical needs along with the civic benefits of protecting architectural and historical characteristics valued by the community.

# GUIDELINES FOR WINDOW REPAIR AND REPLACEMENT

#### 1. REPAIRING HISTORIC WINDOWS IS THE BEST PRESERVATION TREATMENT

- 1.1 Proper maintenance and repair is the most appropriate treatment for windows on historic property. Retention and repair of historic windows promotes the long-term preservation of the physical building material, integrity, and appearance of historic buildings and districts.
- 1.2 Historic windows on primary elevations should be repaired unless it can be documented that repair is not a reasonable option.
- 1.3 All reasonable efforts should be made to preserve special windows that are of a custom design with unusual shapes, details, configurations, or craftsmanship. A stricter standard may be applied to ensure the preservation of special windows.



Special windows exhibit unusual features, such as the curved glass and unusual sash configuration on this window.



These original wood windows have been regularly maintained and are in excellent condition.

1.4 Maintenance and repair can extend the life of historic windows and greatly improve their energy efficiency. Prior to considering replacement windows, property owners should consider whether weather stripping, storm windows or basic repairs can achieve improved energy efficiency.



All reasonable efforts should be made to preserve and repair special windows.

- 2. REPLACEMENT WINDOWS ON PRIMARY ELEVATIONS OF HISTORIC BUILDINGS SHOULD REPLICATE THE APPEARANCE OF THE HISTORIC WINDOWS
- 2.1 Replacement windows on primary elevations should closely match the historic appearance. New windows should fit properly within the original openings, replicate the pane configuration, dimensions and profiles of the sash, framing elements and muntins, and match the finish and visual qualities of the historic windows.



These new windows (at left) do not replicate the profiles, dimensions, fit or visual appearance of the originals (right).



This replacement window does not properly fit the original opening.

- 2.2 If existing windows are not historic windows, replacements should be consistent with the historic design. If the historic design is not known, the new window should be consistent with the architectural character of the building and compatible in general character.
- 2.3 Replacement windows on primary elevations should properly fit and fill historic window openings to match the historic appearance. New installations should not result in an increase in the size of the exterior framing or diminution in the amount of glass.
- 2.4 Expanding or reducing the size of window openings, blocking up, or creating new openings on primary elevations of historic buildings is not appropriate. Lowering the sills of basement windows may be appropriate when it has minimal visual impact and does not result in a perceptible increase in window dimensions.

2.5 Replacement windows may be doubleglazed. Muntins on multi-light windows should be integral (not removable) and have an exterior profile. False muntins located between two panes of glass and removable muntins are not appropriate.



The muntins and exterior framing elements on these replacement windows (above and below) replicate the profiles of the original windows.





The existing windows on this apartment building (lower floor) are not historic. The replacement windows (upper floor) more closely replicate the original appearance.

- 2.6 Replacement window glazing should be clear glass unless otherwise historically appropriate. Low-emissivity glazing is acceptable if it has the same general visual appearance as clear glazing. Replacement of tinted or specialty glass should match the historic glass or be historically appropriate or compatible.
- 2.7 Replicating the material of the historic windows on primary elevations of historic buildings is the most appropriate option. However, alternative materials may be acceptable if they can closely match the visual characteristics of the original.

- 3. WINDOWS ON SECONDARY ELEVATIONS OF HISTORIC BUILDINGS SHOULD REASONABLY MATCH THE APPEARANCE OF THE HISTORIC WINDOWS
- 3.1 Replacement windows on secondary elevations that are architecturally composed or contribute to the overall character and design of the property should closely match the character and visual qualities of the historic window.
- 3.2 Alteration of window openings on secondary elevations that are architecturally composed or contribute to the overall character and design of a property is discouraged. Limited alteration may be appropriate if it is compatibly designed and does not affect important character-defining or compositional features.
- 3.3 Replacement windows on secondary elevations that are visible from a street should properly fit and fill original window openings and match the general characteristics of the original windows. Precise replication is not required.
- 3.4 Replacement windows facing a rear yard, internal courtyard, light well or are on strictly utilitarian elevations should match the general characteristics of the historic window but flexibility will be applied.
- 3.5 Selective alteration or blocking up of window openings on secondary elevations that are strictly utilitarian may be appropriate if it is compatible in general character with the building and if it does not affect important character-defining features.
- 3.6 Replicating the material of historic windows on secondary elevations is the most appropriate option; however, alternative materials are acceptable.



The windows on this architecturally composed secondary elevation (at left) closely match the windows on the primary elevation (at right).



The replacement windows on the primary elevation (at left) closely match the original appearance. The windows on the secondary elevation (at right) fit their openings and match the general character of the original windows.



Filling in this window opening, located on a utilitarian rear elevation, does not affect important characterdefining features of the building.

- 4. WINDOWS ON ADDITIONS, NEW CONSTRUCTION AND NON-HISTORIC PROPERTY SHOULD BE APPROPRIATE TO THE CHARACTER OF THE BUILDING OR DISTRICT
- 4.1 Windows on additions to historic property that are visible from the street should be compatible with the proportions, scale and orientation of windows found on the historic building. This principle is most important when windows are in close proximity to a primary elevation of the building, or where the addition is prominently visible from a street.
- 4.2 Windows on additions that are not visible from a street should respect the general scale and character of fenestration in the historic district.



- 4.3 Windows on new construction should be consistent with the general proportions, scale and character of windows found in the historic district or landmark.
- 4.4 Replacement windows on noncontributing buildings in historic districts should be compatible with the character of windows in the district. Replication of the existing windows is not required.

4.5 The review of windows and fenestration on additions, new construction and noncontributing buildings is intended to promote design compatibility with historic buildings and districts. It is not intended to discourage good contemporary design or creative architectural expression.



The windows on these new construction projects are not precisely the same as the windows on surrounding properties but are compatible in scale, proportions and orientation with their contexts.



# WINDOW RETENTION

#### **REPAIR OPTIONS**

Retention and repair of historic windows is the most appropriate treatment for historic property, and repair options should be evaluated prior to considering replacement. The first step is to evaluate the condition of existing windows, which can often be done simply through close visual inspection; contractors who specialize in repair can provide a more detailed analysis. The following conditions are generally easily repairable:

#### Loose panes or missing glazing putty

Glazing putty, which holds panes of glass in place, will eventually dry and shrink and is meant to be replaced periodically. Maintaining a sound paint finish will protect putty glazing from needing frequent replacement.





Wood windows before and after restoration

#### Broken or cracked glass

Cracked or broken glass allows air and water into a building and will eventually deteriorate wood sash. Historic windows are constructed to allow easy replacement of broken glass.

#### Paint

Paint protects wood and putty from deterioration and is essential to the long-term

maintenance of wood windows. If paint is peeling or cracking, water can penetrate and eventually deteriorate wood elements. However, paint failure should not be interpreted as a sign that the wood is in poor condition, as old-growth wood is frequently in sound condition beneath peeling paint.

As lead-based paint was not banned until 1978, property owners planning to strip paint from old windows should work with contractors certified to undertake this type of work. For information on lead paint removal, consult the DC Department of the Environment's website at <u>dc.ddoe.gov</u>.

#### Broken sash cords

Sash cords or chains, which hold the counterbalance weights in sash windows, may eventually break but can be easily replaced.

#### Loose fitting sash

Gaps between the sash and frame and around the frame allow air and water infiltration, resulting in drafts and wood deterioration. Weather stripping or new liners along the sides of the frame (known as jamb liners) can provide a tighter fit.

#### Damaged wood

Partially decayed or rotted wood can be repaired, stabilized or patched with epoxy to achieve a sound condition. Wood elements that are badly deteriorated beyond stabilization can be selectively replaced.



# WINDOW RETENTION

#### **INCREASING ENERGY EFFICIENCY**

In addition to undertaking basic maintenance and repair, the energy efficiency of windows can be greatly improved with weather stripping, storm windows, or replacement glass. These modifications can result in improvements to a window's efficiency equivalent to that of a replacement window.

#### Weather stripping

The majority of heat loss through historic windows occurs around the perimeter of the sash rather than through the glass. The tighter the seal around the window and between the upper and lower sash, the more energy efficient the window will be. Adding inexpensive weather stripping to existing windows can increase their energy efficiency by as much as 50%.

Joint fillers, caulk, glazing putty and sealants can be used to seal cracks and openings on non-moving parts such as around frames and glazing. Metal, silicone, rubber and felt weather stripping can be applied to moving elements to provide a tighter fit without sealing them shut.

#### Storm windows

Storm windows are a relatively inexpensive solution that can greatly increase the thermal efficiency of windows while preserving historic windows. Storm windows can be applied on the interior or exterior of a window, are reversible and easily upgraded, and their installation does not require a building permit.

Storm windows can be outfitted and custom designed for any historic window configuration. Storm windows look and work best when they fit tightly within the window opening, are fabricated or painted the same color as the window trim or sash, and have a meeting rail that aligns with the meeting rail of the window.



This storm window was fabricated to preserve and improve the energy efficiency of a special curved glass window.

## Reglazing existing sash

While the majority of heat loss is through the perimeter of the sash rather than through the glass, retrofitting thermal glazing into existing single-glazed sash can improve the energy efficiency of historic windows while retaining the original sash and frame. Double-insulated glass within existing sash can provide a comparable level of energy efficiency as a standard new double-glazed unit if done in concert with the installation of weatherstripping.

# WINDOW RETENTION

#### FURTHER INFORMATION AND REPAIR CONTRACTORS

The National Park Service has published a series of "Preservation Briefs" on many topics related to the repair and maintenance of historic building elements, including the repair of wood and steel windows and improving the energy efficiency of historic buildings. Each brief also includes a bibliography of sources for further information.

www.nps.gov/history/hps/tps/briefs

The HPO website contains articles and links to further information on improving the energy efficiency of historic windows and doors, and on the sustainability benefits of historic preservation.

#### www.preservation.dc.gov

Under a cooperative agreement with the HPO, the DC Preservation League maintains an online directory of contractors who specialize in products and services for the repair and rehabilitation of older buildings. The directory includes local contractors who specialize in window repair. To search the directory, visit: <u>www.dcpreservation.org</u>



#### THE ENVIRONMENTAL IMPACTS OF WINDOW REPAIR AND REPLACEMENT

Retaining and repairing original windows not only preserves an important architectural feature of the building, but is also consistent with and reinforces the city's goals for promoting sustainability and energy efficiency. The long life span and reparability of historic windows and the ability to improve their energy efficiency through repair, reglazing or the addition of storm windows makes window retention an environmentally responsible alternative to window replacement.

- The quality and craftsmanship of historic wood windows is generally superior to wood windows produced today. Milled from slow growth forest lumber, windows manufactured prior to 1940 were constructed from wood that is harder and denser than modern lumber, making it more resistant to decay and infiltration by water and insects.
- The technology used in the manufacturing of historic wood windows allows them to be readily disassembled and repaired. Throughout the life of the window, individual components can be restored, upgraded, and adapted. By comparison, current replacement windows are manufactured as a single unit that typically cannot be repaired when individual components fail. When an element such as the glass or the seal around a modern window breaks or fails, the entire window is thrown away and needs to be replaced.
- Retaining historic windows conserves their "embodied energy" -- the sum total of energy required to extract raw materials, manufacture, transport, and install building products -- and eliminates the energy and toxic-by products typical in the manufacturing of replacements.

## WINDOW REPLACEMENT

#### NEW WINDOW CHARACTERISTICS

There are several design characteristics that affect the appearance of replacement windows and whether they convincingly replicate the appearance of traditional wood windows. Each of these characteristics should be evaluated when considering window replacement on historic property.

#### Material and Finish

The visual appearance of replacement windows should match the material and finish of the original windows.

Most windows on historic property were constructed of wood and provided with a paint finish. **Finish** is the texture and reflective quality of the window's exterior frame and sash. In most instances, particularly where the windows are seen up close, such as houses and smaller buildings, painted wood is the most appropriate replacement option for replicating the material and finish of historic windows.

Fiberglass, wood composites, metal, and metalclad windows may be acceptable if they can be shown to replicate the material appearance of wood windows – its profiles, dimensions, finish and other visual qualities. New wood windows, as well as some metal, metal clad, and fiberglass windows, can be fabricated and finished in a manner that convincingly replicates the visual appearance of a historic wood window. Vinyl windows do not replicate the profiles, dimensions or finish of historic windows and are not appropriate replacements for windows on primary elevations of historic property.

Substitute materials often work best on larger structures, such as apartment and office buildings, schools, and institutional buildings where windows are often not seen at close range and the overall pattern of fenestration is the most important characteristic.

#### Pane Configuration and Muntins

The configuration of panes and the pattern and profiles of muntins should replicate the appearance of the original windows.

Changes in architectural styles and glass manufacturing resulted in a wide variety of historic window pane configurations. Historic windows can be as simple as having a single pane of glass in the upper and lower sash to having multiple panes in each. **Muntins** are the structural elements that hold the individual panes of glass. Muntins on replacement windows should match the exterior profile of a putty-glazed window, the width, and any other visual qualities of the originals.



Muntins are typically thicker on windows with larger panes, and thinner on windows with smaller panes. At left, the muntin is more than 1 inch wide; at right, the muntins are less than a half inch wide.

Most replacement windows have "simulateddivided light" sashes, where the muntins are not structural but simply affixed to the outside and inside of the glass to provide the appearance of individual, smaller panes. Simulated divided light windows are acceptable on historic property if they have an exterior profile that replicates the dimensions and appearance of the original. Muntins that are sandwiched between panes of glass or that snap in on the interior do not convincingly match the appearance or profile of traditional muntins.



This cut-away section of a simulated divided light window has an interior and exterior muntin with a beveled profile that replicates the appearance of an historic window.

#### Brick Molding, Casing and Mullions

Exterior window framing elements should be retained or replicate the size, profile and dimensions of the original condition.

The frame of a window is largely obscured from view due to its placement within the wall cavity but is typically finished on the exterior with molding or casing that has a distinctive appearance. On a masonry building, an applied piece of wood called **brick molding** covers the joint between the frame and the brick wall.

Brick molding on historic wood windows typically has a distinctive profile that is rounded or shaped. While the standard brick molding supplied on many new replacement windows is flat, most manufacturers can supply or fabricate alterative shaped brick molding. Brick molding on primary elevations of historic property should either



Original rounded brick molding (left); flat replacement molding does not replicate the original profile (right).



Original rounded brick molding (left); aluminum capping covers and flattens the original profile (right).



Flat window casing (left); chamfered casing (right).

be retained or replicated in kind. Capping or wrapping wood brick molding with aluminum or vinyl is not appropriate on small scale buildings where windows are seen close up but may be acceptable on large scale buildings in the context of a comprehensive window replacement project. In those instances, capping should reasonably match the profile of the original molding.

On a frame building, the window opening is trimmed out with wood **casing**. Casing is often flat but may have a chamfered edge or shaped or decorative profile at the top. Original casing should be retained, or if beyond repair, replicated to match the original appearance. Capping or wrapping wood casing is not appropriate for historic property.

A **mullion** is the wood dividing member separating two abutting windows, such as between two paired windows or a transom above a window. A mullion often has stylistic qualities, such as decorative fluting, a turned column, or a chamfered edge. Mullions should be maintained and repaired; if repair is not possible, they should be replaced in kind. Removing a mullion and installing two paired windows without a new mullion is not appropriate, as it changes the proportions of the windows.

#### Window Screens

The dense mesh of modern screens can greatly diminish the amount of light coming into a property while also obscuring the exterior view of the window *(left)*. One solution is to use half screens on a window's lower sash *(right)*, or a lighter-weight mesh that provides greater transparency. Eliminating screens from windows that owners have no intention of opening should also be considered. As with storm windows, the color of screen frames should generally match the color of the window frame. The installation of window screens does not require a building permit.



#### Window Security Bars

Security bars should be simple in design and installed into wood window framing elements rather than into a masonry wall. Installation of security bars does not require a building permit.

#### Window Air Conditioning Units

Inserting removable air conditioning units in existing window openings *(above left)* does not require a building permit. Condensation from the unit should be routed so that it does not leak into or down the face of the building in a manner that will cause damage. Through-wall units *(above right)*, or an installation which results in alteration of a window, window opening or wall surface is generally not appropriate for historic property and does require a building permit.



#### WINDOW REPLACEMENT

#### INSTALLATION OPTIONS

There are three ways in which existing windows on historic property can be replaced: replacing the sash within the existing frames, inserting a new frame and sash within the old window frame (pocket replacement), and removing the old frame and installing a new framed window in the original opening. Each method has implications that should be considered and discussed with the window installer prior to ordering replacement windows.



#### Sash Replacement

Replacing the sash within the existing wood frames is often the least expensive method of replacing windows and can provide an excellent match to their historic appearance. In this type of installation, the existing sashes and counter-weights within the jamb pockets are removed, but the interior trim and exterior brick molding are retained. While the new sash may operate along the existing jamb, most typically, insulation is injected into the weight pocket and a vinyl liner is installed on the sides of the jamb on which the new sashes operate.



A sash replacement with new jamb liners

Because the exterior brick molding and interior trim are maintained, sash replacements can typically provide a close replication of the original window appearance. Sash replacement allows for the introduction of double-insulated glass within the window opening, provides an air-tight seal between the sash and the jamb (the primary source of most heat-loss in older windows), and mitigates the hazards of lead paint that typically become air-borne with the friction between the old sash and jamb. For buildings where windows are slightly out-ofsquare due to settlement, sash replacements can be accommodated with minor adjustments to the opening or sash.

#### Pocket Replacement

"Insert" or "pocket replacement" refers to a method of installing a new framed window within the original frame. The operable sash and sash stops are removed and a new framed window is installed in the existing frame. The exterior brick molding is typically retained. This type of installation often results in a noticeable increase in the size of the frame on the exterior and a corresponding diminution in the amount of glass area. There may be instances in which the new frame is sufficiently narrow and the old frame is set deep within the masonry wall such that the increase in frame size is not significant. However, unless it can be documented that the new frame will not result in a change in the exterior appearance of the window, this method of installation is not encouraged.



This pocket window replacement (above) has noticeably thicker framing and less glass than the original window (right).

#### Full Frame Replacement

"Full frame replacement" refers to window installation where the existing sash and frame are removed and a new framed window is installed in the original opening. This type of installation requires removal of the interior trim and may include removal of the exterior brick molding. This type of installation is most typical during substantial renovation or reconstruction, as it can result in significant disruption to the property's interior.

With proper measurement and replication of the old frame and sash dimensions and profiles, new full-frame window replacement can match the original condition without increasing the frame size or reducing the glass size of the window.



# WINDOW REPLACEMENT

#### MEASURING WINDOWS

Taking precise measurements is important to ensuring that replacement windows accurately fit and replicate the historic appearance. These two drawings show an elevation *(right)* and plan *(below)*, with the measurements that should be taken for existing historic windows. Property owners should ask the window supplier or installer to provide drawings or comparable measurements for replacement windows.

- A = Width and height of the masonry opening
- B = Combined width of frame and sash
- C = Width and height of the glazed "daylight" opening
- D = Width of muntins





#### WINDOW DEFINITIONS

**Brick molding** (or brickmold) is the exterior trim applied between the frame of a window and the masonry opening into which the window is set.

**Casing** is the exterior trim applied around the perimeter of a window on a wood frame building.

**Finish** is the texture and reflective quality of the window's exterior frame and sash. Historic wood windows are characterized by their painted finish.

**Frame** (also known as the "jamb") is the structural element that is attached to the opening and supports a window's operable sash components.

**Historic window** is one that appears to date from the construction of the building, that is of a type characteristic of the building when constructed, or that was incorporated into the building within the landmark or district's period of significance.

**Mullion** is the dividing member separating two abutting windows, such as between two paired windows or a transom above a window. A mullion often has stylistic qualities, such as decorative fluting, a turned column, or a chamfered edge.

**Muntins** (also referred to as a "grille") are the framing members that hold separate panes of glass within a window sash.

**Primary elevation** is a building face that fronts a street or public open space, or any major building elevation that possesses significant architectural composition or features. Examples include the front façade of a rowhouse, the front and side elevations of a corner rowhouse, and all elevations of a free-standing building with equal architectural distinction on all sides. Sash refers to the glazed components of a window. Non-operable sashes are "fixed." Operable sash can be "double-hung" (two sashes opening vertically against the jamb), "single-hung" (similar to a double-hung except with a stationary top sash), "sliders" (slide horizontally), or pivoting (casements, awnings, and hopper windows). The horizontal structural member of a sash is a rail; a vertical structural member is a stile.

**Secondary elevation** is a building wall that does not face a street or public open space and that does not possess significant architectural composition or features. Examples include the rear or alley elevation of a rowhouse, and the sides and rear of a detached house where the architectural composition of those elevations notably lacks the architectural qualities of the primary elevation.

**Sill** is the horizontal member at the bottom of the window frame, typically made of wood and resting on the bottom of the window opening. The wood window sill may sit on a separate masonry sill that is part of the exterior wall surface.

**Special window** is one that creates a special architectural effect or is a custom design not typically found in a manufacturer's catalog. Features that make a window "special" may include non-rectilinear frame or sash, transoms or sidelights, unusual pane configurations, multi-pane configurations with twelve or more panes in a sash, curved glass, stained or leaded glass, decorated or carved sash, or projecting bays or oriels.

**Transom** is a small window located above a window or door, separated from the underlying opening by a wood or masonry mullion. Exterior transoms are commonly fixed and may have one or more panes, sometimes with stained or leaded glass in decorative patterns.



#### **BUILDING PERMIT REVIEW**

Repairing windows on historic property does not require a DC building permit or approval by the Historic Preservation Office (HPO). Repair and maintenance work exempted from needing a permit includes replacing glass or glazing compound, repairing wood damage, painting, applying weather stripping and installing storm windows. Installing window screens, security bars, and through-window air conditioning units does not require a permit as long as no permanent alterations are made to windows or window openings.

Replacing windows on historic property does require a DC building permit. Permit applications are reviewed by the HPO according to these guidelines and regulations established by the Historic Preservation Review Board (DCMR 10-C, Chapter 23) to ensure that the windows are compatible with the building's character. The regulations can be found at <u>www.preservation.dc.gov</u>.

The HPO can help property owners determine whether existing windows are original to the building, whether they are reparable, and if not original or reparable, provide guidance on selecting appropriate replacements.

The following is needed for the HPO to review a permit application for window replacement:

- Photographs of the existing windows sufficient to show the building and windows. If historic windows are proposed for replacement, photographs should clearly document their deterioration.
- A drawing providing measurements of the <u>existing</u> and <u>proposed</u> windows. The drawing(s) of existing and proposed conditions should include the exterior height and width of the window opening, the width of the window's framing and sash elements, and the width and height of the glass opening, and the width of any

muntins *(see sample drawings on opposite page)*. A drawing is not necessary when only the window sashes are being replaced.

- A manufacturer's specification sheet or drawings of the proposed replacements that identifies brand and model number, and the profile, dimensions and configuration of muntins.
- An application for a DC Building Permit for Construction on Private Property. Permit applications can be downloaded at <u>dcra.dc.gov</u> or obtained at the Permit Center.

Permit applications and support materials should be submitted at the HPO desk at the DCRA Permit Center at 1100 4<sup>th</sup> Street, SW on the 2<sup>nd</sup> Floor (Waterfront Metro). For questions, please call HPO at 442-8800 to speak to a preservation specialist.

#### **PROPERTIES WITH EASEMENTS**

Many properties in the District of Columbia have historic preservation conservation easements, typically denoted by a plaque on the façade. A conservation easement is a property interest that has been donated by the current or a previous property owner to an easement-holding organization, and provides an added level of protection and review to those historic properties.

While the standards applied by the HPRB in the review of changes to historic property are generally the same as that applied by easement-holding organizations, there may be circumstances where an easement holder applies a more stringent standard. Owners of properties with easements are required to obtain written approval from the easement holder prior to the submission of a permit application for any exterior alteration, including window replacement.

# DC HISTORIC PRESERVATION REVIEW BOARD PRESERVATION AND DESIGN GUIDELINES

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DOOR REPAIR AND REPLACEMENT

Illustrations courtesy of Namon Freeman and Emanuela Tajolini

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