

DISTRICT OF COLUMBIA MUNICIPAL REGULATIONS
TITLE 10A HISTORIC PRESERVATION

**CHAPTER 23 STANDARDS FOR WINDOW REPAIR AND REPLACEMENT
(WINDOW STANDARDS)**

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2300 GENERAL PROVISIONS

Windows are an important and integral part of the design of most buildings. They typically comprise thirty to forty percent of the surface area of the building’s principal façade. In making a determination on proposed changes to windows, the Board and staff evaluate the effect of the proposal on the aesthetic values and the historical and architectural significance of the affected historic building. Factors in this evaluation include the architectural style and integrity of the historic building, and the design, material, color, and general appearance of the proposed work.

These window standards are based on the following principles:

- (a) The historic character of a property and its distinguishing qualities shall be retained and preserved. The removal of historic materials or alteration of distinctive architectural features should be avoided.
- (b) Deteriorated architectural features should be repaired rather than replaced.
- (c) In the event that replacement is necessary, the new feature should match the historic in design, color, texture, and other visual qualities, and, where possible, materials.

To the maximum extent possible, these standards shall be applied so as to minimize harm to National Historic Landmarks and National Historic Landmark Districts.

The following terms specifically applicable to this chapter are defined in Chapter 99:

- (a) Façade;
- (b) Principal façade;
- (c) Secondary elevation; and
- (d) Character-defining feature.

2301 WINDOW TYPES

An “existing window” means a windows existing at the time of designation, if supported by documentary evidence, or a window that has been changed subsequent to designation pursuant to a valid permit reviewed by the Board.

A “historic window” means:

- (a) A window that appears to date from the construction of the historic building, as determined with a reasonable degree of certainty by professional evaluation;
- (b) A window that is of a type characteristic of the building when constructed, as supported by documentary evidence which may include typologies of similar buildings in similar periods and styles; or
- (c) A window that was incorporated into the building by a major alteration undertaken within the period of significance of the historic landmark or district, as supported by documentary evidence.

A “special window” means a window that creates a special architectural effect, or is a custom design, not typically found in a manufacturer’s catalogue. These windows may or may not be repetitive, and usually involve one or more of the following attributes:

- (a) Non-rectilinear frame or sash;
- (b) Transom or side light configuration;
- (c) Multi-pane configuration with twelve or more panes in a single sash;
- (d) Curved glass;
- (e) Stained, leaded, or artistically crafted glazing;
- (f) Decorated, carved, or embellished sash, frame, or surround; or
- (g) Projecting bay or oriel.

2302 WINDOW COMPONENTS AND ATTRIBUTES

“Configuration” means the number, shape, organization and relationship of panes or lights of glass, as defined by sash, frame, muntins, or tracery

“Dimensions” means the size and measurements of both stationary and moveable portions of a window and its applied moldings.

“Fenestration” means the way in which windows are arranged in a façade, including configuration, profile, material, and finish.

“Finish” means the visual characteristics, including color, texture and reflectivity of all exterior materials. A replacement window does not match the finish of a wood window if it is clad with metal or vinyl.

“Frame” means the stationary portion of a window unit, which is affixed to the façade and which holds the sash or other operable portions of the window.

“Glazing” means the glass or other material forming the transparent portion of the window, often in a configuration of separate pieces referred to as panes or lights.

“Match” means a closely approximate, but not necessarily an exact, replication. Tolerances permitted in determining the acceptable level of approximation shall in general be in fractions of inches. In making this determination, the staff considers overall sizes of window openings and proportions of elements making up the window. In all cases, there shall be minimum variation in the distance between the plane of glass and the plane of adjacent exterior surfaces (muntins, sash and frame).

“Meeting rail” means the horizontal portion of sash in a double hung window designed to interlock with the other sash member, usually at the middle of the window.

“Method of operation” means the manner in which a window opens, closes, locks, or functions. If non-operable, a window or window element, such as a sidelight, is identified as “fixed.”

“Molding” means a trim piece which introduces varieties of outline or contour in edges or surfaces of window elements such as jambs and heads. Moldings are generally rectilinear, curved, or a composite of curves.

“Mullion” means a vertical primary framing member which separates paired or multiple windows within a single opening.

“Muntin” means a tertiary framing member which subdivides window sash into individual panes, lights or panels. For the purposes of these standards, the term includes lead comes associated with stained glass windows. False muntins or “grids” placed between two sheets of glass are not considered muntins.

“Panning” (also known as “capping” or “wrapping”) means a material, usually metal or vinyl, applied to cover the exterior surface of an existing window frame or mullion.

“Profile” means the three-dimensional appearance of a window, particularly as perceived under the conditions of sunlight and shadow. Profile is established by the contours of frame and sash elements, and by the successive depth of recess of the window within the opening, the sash within the frame, and the glass within the sash.

“Sash” means the secondary part of a window, either operable or fixed, which holds the glazing in place. Sash is usually constructed of horizontal rails and vertical stiles, and it may be subdivided with muntins.

2303 WINDOW MAINTENANCE AND REPAIR

Proper maintenance and repair of historic windows is the most appropriate historic preservation approach, since it promotes the long-term preservation of the physical fabric, historic integrity, and appearance of historic buildings and districts. Historic windows should be repaired where possible.

A permit is not required to undertake the following maintenance work:

- (a) Replacement of broken glass, together with associated replacement of glazing compound and, if necessary, of damaged moldings and muntins with material of matching characteristics.
- (b) Scraping, priming and repainting of window sash or frames.
- (c) Caulking around frames and sill.
- (d) Repair and replacement of window hardware, including pulley chains.
- (e) Installation of weather-stripping.
- (f) Rebuilding portions of sills, sash, molding, and other window members, using the same material and to the same configuration, size, shape, and profile.
- (g) Consolidating wood members with epoxy or other wood fillers.

A permit is required for repair work that involves any change in configuration, shape, size or profile of any component of the total window assembly, or any change in the type of material used for replacement work, or in wholesale replacement of any window element.

2304 STORM WINDOWS

The use of secondary windows or storm windows, either exterior or interior, is encouraged as a means of preserving historic windows. Under the D.C. Construction Code (12 DCMR § 111), a permit is required for the installation of storm windows in historic landmarks or in historic districts.

Interior Storm Windows

- (a) Storm panels should have no intermediate dividing members (mullions or muntins), except on large windows, where any necessary dividing members should align with major divisions of the historic window.
- (b) Frames should be narrow and not visible or minimally visible when viewed from the exterior of the building.
- (c) Glazing should be only of clear glass or other transparent material.

Exterior Storm Windows

- (a) Sash should fit tightly within window openings without the need for a subframe or panning around the perimeter.
- (b) Sash should have no intermediate dividing members (mullions or muntins), except on large windows, where any necessary dividing members should align with major divisions of the historic window.
- (c) Meeting rails should be used only in conjunction with double-hung windows and should be in the same relative location as in the primary sash.
- (d) The color of the frame members should approximate the color of the primary window frame.
- (e) Glazing should be only of clear glass.
- (f) The plane of glass in the secondary (storm) sash shall be no more than two (2) inches further forward (towards the exterior) from the plane of the glass in the primary window unless unusual conditions make this infeasible.

2305 WINDOW REPLACEMENT: GENERAL PROVISIONS

Replacement of historic windows should be considered only if the preferred option of preserving historic windows is not feasible, given the facts and circumstances of each particular case.

Under the D.C. Construction Code (12 DCMR § 107), a permit is required for the replacement of windows in historic landmarks or buildings within an historic district.

The requirement for a permit applies equally to the removal or replacement of sash in existing frames, and to the removal or replacement of both sash and frames. If repair or rehabilitation of frames is proposed, that work shall also be indicated on the permit application.

Replacement sash and frames shall match the historic sash and frames in all respects—configuration, method of operation, profile, dimensions, material, finish, and any other salient character-defining features, except as provided below.

Panning, capping, or wrapping of window piers, mullions, frames, and sills is generally discouraged.

Replacement windows may be double-glazed, but they shall have either “true-divided” lights, or “simulated-divided” lights (integrally applied external and internal muntins), with configuration and profiles matching the historic window. False muntins or “grids” located between two panes of glass, and “snap-ins” applied either internally or externally are not considered acceptable muntins.

Glazing in replacement windows shall be clear, non-reflective glass unless otherwise historically appropriate or determined compatible by the staff. Replacement of stained or specialty glass shall match the historic glass or be historically appropriate or compatible.

Permanent exterior full screens covering the entire window opening detract from the historic appearance of windows and are discouraged. Half screens or internal screens are preferred.

The standards for window replacement reflect a hierarchy of building importance, as delineated in the following sections. The strictest standard shall be applied to National Historic Landmarks, historic landmarks and major buildings in historic districts, a more flexible standard shall be applied to contributing buildings in historic districts (with additional flexibility applied to larger buildings), and the most flexible standard shall be applied to non-contributing buildings and new construction.

If the existing windows in an historic building are not historic windows, replacement windows should be consistent with the historic window design if known, or should be consistent with the period of the building and compatible with its general historic character.

2306 WINDOW REPLACEMENT: HISTORIC LANDMARKS

Principal Facades

- (a) If historic windows cannot reasonably be restored, replacement windows shall be approved if they match the historic windows in all respects—configuration, method of operation, profile, dimensions, material, finish, and any other salient character-defining features. A stricter standard of reasonableness shall be applied to special windows.
- (b) Variations in profile shall be permitted if these variations do not significantly affect visual characteristics of the historic window. In evaluating “significant” effect, factors to be considered shall be the age of the building, its architectural

quality, and the extent of diminution in the total glazed area of the sash. Exact replication of profiles may be required if warranted by the significance of the historic building,

- (c) The color of replacement windows shall match or approximate the historic color of the historic windows, if this can be determined. Otherwise, the color shall be historically appropriate.
- (d) With respect to matching of materials, it shall be understood that a wood historic window shall be replaced in wood, but not necessarily of the same species. A metal historic window shall be replaced with metal but not necessarily of the same metal. Exact replication of materials may be required if warranted by the significance of the historic building.
- (e) Replacement of windows in a different material shall require approval by the Board.
- (f) Alteration of window openings shall generally require approval by the Board. For basement openings not visible from a street or public open space, or only marginally visible, the staff may approve alterations that do not compromise historic or architectural characteristics.

Secondary Elevations

- (a) If existing windows are visible from a street or public open space, a permit shall be issued if replacement windows match the historic windows in terms of configuration, method of operation, profile, dimensions, and finish, and provided that they do not replace special windows. Matching the material is encouraged but not required.
- (b) If existing windows are not visible from a street or public open space, a permit shall be issued if replacement windows reasonably match the historic windows in terms of configuration, method of operation and dimensions, and provided that they do not replace special windows.
- (c) Alteration of window openings is discouraged, but some flexibility may be applied.

2307 WINDOW REPLACEMENT: CONTRIBUTING BUILDINGS IN HISTORIC DISTRICTS (MAJOR BUILDINGS)

For the purposes of these standards, a “major building” in a historic district is a contributing building that is individually distinguished by characteristics like symbolic value, visual prominence, substantial size, architectural elaboration, or historical association. These buildings often meet the criteria for historic landmark designation, and typically include public and institutional buildings, schools, mansions, and places of worship or public assembly.

Major buildings in historic districts shall be treated on a case-by-case basis, usually according to the same standards applicable to historic landmarks.

2308 WINDOW REPLACEMENT: CONTRIBUTING BUILDINGS IN HISTORIC DISTRICTS (SMALL BUILDINGS)

For the purposes of these standards, a “small building” in a historic district shall be defined as a building of four stories or less, unless the building has a street frontage of one hundred (100) feet or more on any single street.

Principal Facades

- (a) If historic windows cannot reasonably be restored, replacement windows shall be approved if they reasonably match the historic windows in all respects— configuration, method of operation, profile, dimensions, material, and finish. A stricter standard of reasonableness shall be applied to special windows.
- (b) Variations in profile shall be permitted if these variations do not significantly affect visual characteristics of the historic window. In evaluating “significant” effect, factors to be considered shall be the age of the building, its architectural quality, and the extent of diminution in the total glazed area of the sash. Exact replication of profiles may be required if warranted by the significance of the historic building.
- (c) With respect to matching of materials, it shall be understood that a wood historic window shall be replaced in wood, but not necessarily of the same species. A metal historic window shall be replaced with metal but not necessarily of the same metal. Exact replication of materials may be required if warranted by the significance of the building.
- (d) The color of replacement windows should be historically appropriate or compatible with the character of the building.
- (e) In buildings other than one- or two-family dwellings, where the historic windows are simple one-over-one, straight-headed, double hung sash with non-contoured and unornamented frames, flexibility may be applied to allow replacement in a different material.
- (f) Alteration of window openings shall generally require approval by the Board. For basement openings not visible from a street or public open space, or only marginally visible, the staff may approve alterations that do not compromise historic or architectural characteristics.

Secondary Elevations

- (a) If existing windows are visible from a street or public open space, a permit shall be issued if replacement windows reasonably match the historic windows in terms of configuration, method of operation, profile, and dimensions, and provided that they do not replace special windows. Matching the material and finish is encouraged but not required.
- (b) If existing windows are not visible from a street or public open space, a permit shall be issued if replacement windows reasonably match the historic windows in terms of method of operation and dimensions, and provided that they do not replace special windows. Flexibility is allowed in the choice of configuration, profile, material, and finish.
- (c) Alteration of window openings is discouraged, but some flexibility may be applied.

2309 WINDOW REPLACEMENT: CONTRIBUTING BUILDINGS IN HISTORIC DISTRICTS (LARGE BUILDINGS)

For the purposes of these standards, a “large building” in a historic district shall be defined as a building of five (5) or more stories in height, or a building of less than five (5) stories with a street frontage of one hundred (100) feet or more on any single frontage.

Principal Facades

- (a) Replacement windows shall be approved if they match the historic windows in terms of configuration, operation, profile, dimensions, and finish. However, matching the material is encouraged and may be required if deemed appropriate by the staff.
- (b) Where the historic windows possess special architectural value, including special windows, replacement windows shall match the material of the historic windows. Special architectural value often applies to large buildings with ground floor or lower floor windows that are distinctively different from the typical upper floor windows. In these cases, the staff may deem it appropriate to require matching the material on the lower windows (or to require retention of the original lower windows), while allowing replacement in a different material for the upper windows.
- (c) Alteration of window openings shall generally require approval by the Board. For basement openings not visible from a street or public open space, or only marginally visible, the staff may approve alterations that do not compromise historic or architectural characteristics.

Secondary Elevations

- (a) If existing windows are visible from a street or public open space, a permit shall be issued if replacement windows reasonably match the historic windows in terms

of configuration, method of operation, profile, and dimensions, and provided that they do not replace special windows. Matching the material and finish is encouraged but not required.

- (b) If existing windows are not visible from a street or public open space, a permit shall be issued if replacement windows reasonably match the historic windows in terms of method of operation and dimensions, and provided that they do not replace special windows. Flexibility is allowed in the choice of configuration, method of operation, profile, material, and finish.
- (c) Alteration of window openings is discouraged, but some flexibility may be applied.

2310 WINDOW REPLACEMENT: NON-CONTRIBUTING BUILDINGS IN HISTORIC DISTRICTS

For replacement windows in a non-contributing building within an historic district, a permit shall be issued if the windows are appropriate for the building and compatible with the historic district.

This guidance is intended to promote design compatibility with historic districts, rather than to discourage good contemporary design or creative architectural expression.

2311 WINDOWS IN NEW ADDITIONS TO HISTORIC BUILDINGS

Windows in additions to historic buildings should be appropriate for the new addition and in most cases consistent in overall character with the windows found on the historic building. This is generally most important for windows in close proximity to a primary historic façade.

Windows in rear additions to historic buildings should generally reflect the less formal design that is characteristic at the rear of most historic structures. Alternatively, windows in an addition distinguished by deliberate contrast should be compatible in scale and character with the historic building overall.

Windows should generally be made of the same material as the building's historic windows, particularly in additions to historic landmarks, major buildings in historic districts, and small buildings in historic districts. Alternatively, use of a different window material should serve to support the design integrity of an addition distinguished by contrast.

This guidance is intended to promote design compatibility with historic buildings and districts, rather than to discourage good contemporary design or creative architectural expression.

2312 WINDOWS IN NEW CONSTRUCTION IN HISTORIC DISTRICTS

Windows in new construction within an historic district should be appropriate for the

building and in most cases generally consistent in character with the windows found in the historic district.

Windows should generally be made of the materials characteristic of similar building types within the historic district.

This guidance is intended to promote design compatibility with historic buildings and districts, rather than to discourage good contemporary design or creative architectural expression.

2313 SUPPLEMENTAL INFORMATION FOR WINDOW PERMIT APPLICATIONS

Permit applications for window work shall include close-up photographs of existing windows in the building or other materials adequate to document the condition of existing windows.

For applications to replace windows, supplemental materials shall include documentation sufficient to indicate the design and construction of the proposed new windows, such as drawings from the manufacturer's catalogue or other drawings with comparative dimensions, details of construction, configuration, color and finish.

If necessary, the staff may request material samples or an on-site mock-up.