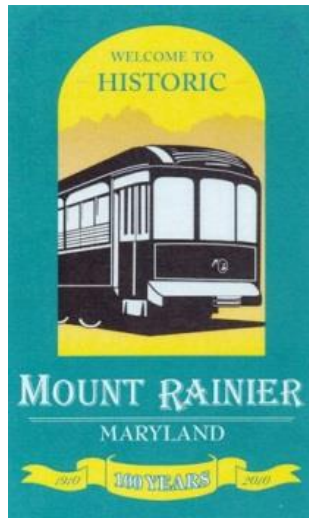


Preservation Tax Credit Windows & Doors

Guidelines



City of Mount Rainier, Maryland

City of Mount Rainier, Maryland

Guidelines

Window & Door Tax Credit Projects

The City of Mount Rainier provides an opportunity for property owners to realize a ten percent (10%) tax credit for approved rehabilitation or replacement of architecturally appropriate windows and doors. The intent of the City is to preserve the architectural integrity of the community and provide property owners an incentive to participate.

State and federal tax credit programs may also be available to property owners and generally must meet the Secretary of the Interior's Standards for Rehabilitation. For more information visit www.nps.gov/history/hps/tps/standguide for federal tax credits, and www.mht.com for the Maryland state program.

Introduction

The design, choice of materials, and location of windows and doors, significantly contribute to the architectural character of buildings. The significance of windows and doors will also differ due to their location and function. Windows located on street facing walls, also referred to as facades or elevations, may contain features not found on other walls. Windows on the sides and rear will usually be less ornate in design. Main entry doors tend to be more elaborate than side or rear doors. These guidelines will assist property owners as they proceed through the rehabilitation and replacement of windows and doors.



30th near Shepherd

There are four basic steps for replacing windows and doors:

1. First, determine if the windows or doors can be repaired rather than replaced;
2. If replacement is necessary, identify windows or doors that are architecturally appropriate for the period and style of the house;
3. Identify manufactures and installers of such windows and doors; and

There are several factors that determine if rehabilitation or replacement of windows or doors will be eligible for the city tax credit. The following is a general discussion followed by background material that will further define the elements of windows and doors.

Windows - if you are replacing windows:

- do they have the same lite pattern as the original windows?
 - do the replacement windows have the same daylight opening as the original windows?
 - do the replacement windows match the muntin profile of the originals?
 - consult with the Mount Rainier Design Review Board *prior* to ordering windows or commencing with the rehabilitation project.
1. To be eligible for the city tax credit, street-facing windows must:
 - a. be replaced with windows that must be painted;
 - b. maintain the original daylight opening;
 - c. have the same number of lites; and
 - d. have similar muntin profiles as the original windows.
 2. If only replacing non-street facing historic windows, to be eligible for the city tax credit, they must:
 - a. be replaced with windows that will accept paint;
 - b. maintain the original daylight opening;
 - c. have the same number of lites; and
 - d. have similar muntin profiles as the original windows.
 3. If replacing a combination of street-facing and non-street facing windows, to be eligible for the city tax credit:
 - a. street-facing historic windows must be replaced as outlined above (1a. - 1d.)
 - b. non-street facing windows will be eligible for the city tax credit as long as the original daylight opening is maintained
 4. Restoration or rehabilitation of existing original window sashes and frames will be eligible for the city tax credit regardless of location on the building.

Storm Windows

The installation, replacement or rehabilitation of appropriate interior or exterior storm windows will be eligible for the city tax credit.

Doors

- identify the appropriate replacement door for the building;
 - find a company that manufactures the doors, and an installer; and
 - consult with the Mount Rainier Design Review Board *prior* to ordering doors or commencing with the rehabilitation project
1. To be eligible for the city tax credit the door replacement should match the original door in size, profile, number of panels, and be of a material that can be stained or painted.
 2. If the existing door is an inappropriate replacement, the city tax credit will apply if a replacement door meets the requirements of #1 above and fits the original opening.
 3. Rehabilitation of an original door will be eligible for the city tax credit.

Storm Doors

The installation, replacement or rehabilitation of appropriate storm doors will be eligible for the city tax credit.

Design of Windows

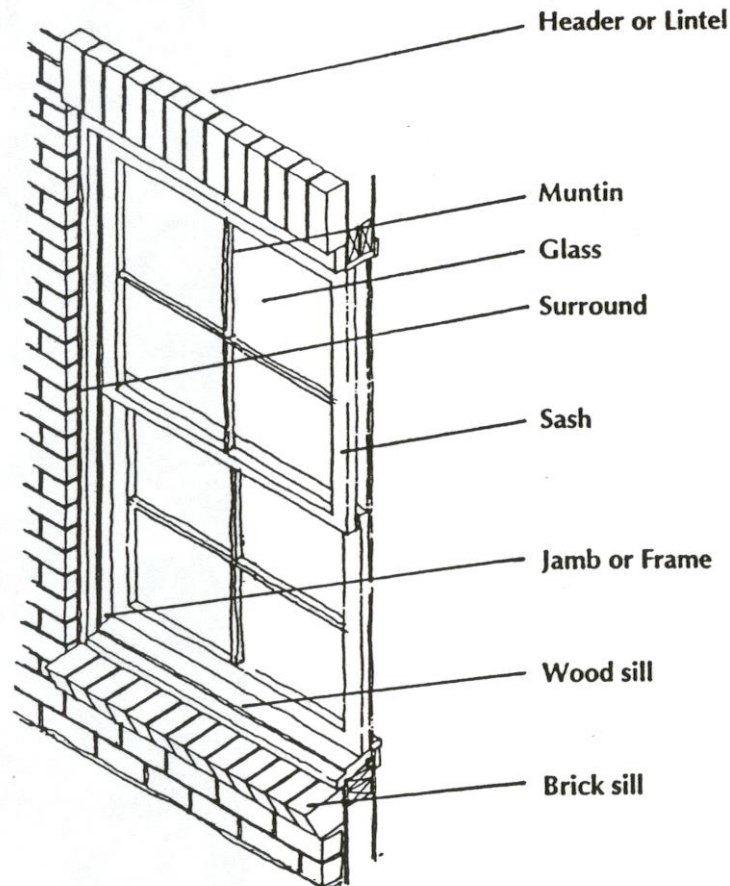
Windows are constructed of a number of components. Windows and their frames are placed in window openings. The top horizontal structural member is called a lintel if made of metal or stone, or a header, if made of wood or brick. The bottom horizontal member of a window opening is the sill. The sides of a window frame are called jambs. A window surround of casing or brick molding frames the window opening. Along with the type of sash used, the exterior trim surrounding a window is almost always a character-defining element.

The operable portion of a window is the sash. Windows are typically described by the number of sash and how they operate. For example, a window consisting of two sashes which open and close vertically is called a double-hung window, while one consisting of three vertically moving sashes is called a triple-hung window.

Double-Hung Windows

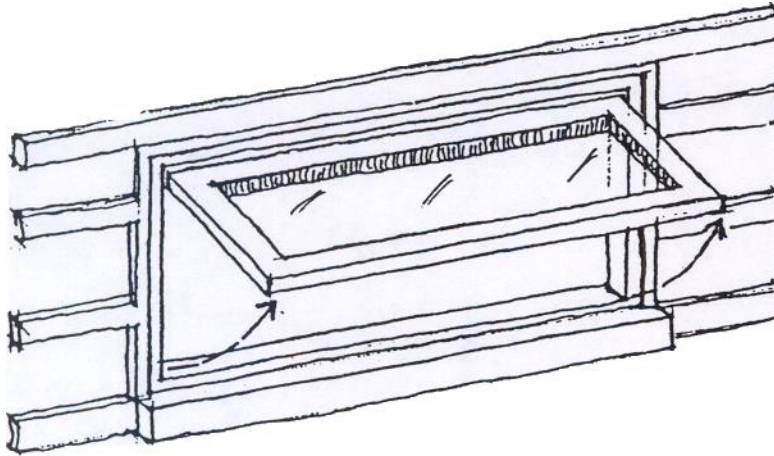
The most common type window in Mount Rainier is the double-hung. Its two operable sashes give the window its name. Most double-hung windows are made of wood, although steel double-hung windows may also be found.

The number of panes of glass (lites) in each sash and the profile of wood pieces separating the lites (known as muntins) contribute to the appearance of a window. They also contribute to the name of the window. For example, a double-hung window consisting of a single pane of glass in the bottom sash and a single pane in the top sash is called a one-over-one window. A window with six panes of glass in the upper sash and one pane in the lower is called a six-over-one window.



Awning Windows

Awning windows were introduced in the early twentieth century. An awning window consists of wide horizontal glass set in a wood or metal frame hinged at the top or bottom. Awning windows are only acceptable for a city tax credit if they are replacing an original awning window. The sash may be a single pane, or subdivided horizontally, vertically or in a multi-paned diamond pattern.

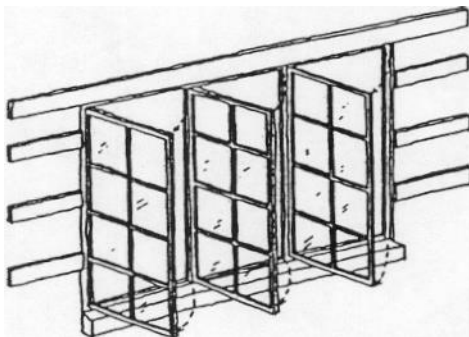


Awning Window

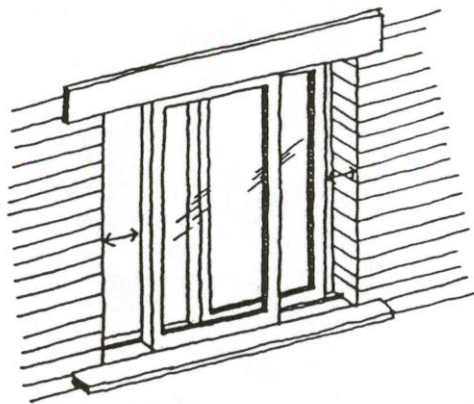
Casement and Sliding Windows

Casement and sliding windows are found on residential buildings constructed after 1900. Casement windows are mounted on vertical hinges and open outward, frequently operated by a hand crank. They are found individually, in pairs, or as a row of multiple sashes. The sash may be a single pane, or subdivided horizontally, vertically or in a multi-paned diamond pattern.

Original sliding windows, less common than other types of windows, can also be found in Mount Rainier. Made of wood or metal, sliding windows typically consist of two sashes that slide horizontally past each other. Each sash may contain a single piece of glass or be subdivided into multiple panes.



Casement Windows



Sliding Windows

Decorative Windows

Different types of decorative windows are found in Mount Rainier. Their names are usually derived from the shape of the opening. It is recommended that these unique windows be repaired but replacement in-kind is eligible for city tax credit.



Example of decorative windows in Mount Rainier taken in 2008

Maintaining and Repairing Original Windows

Windows are an important defining feature of any building, contributing a sense of scale, craftsmanship and proportion. If possible, original windows on historic buildings should be repaired rather than replaced. Proper restoration can make old windows as energy efficient as all but the most expensive wood replacement windows. Even if the operable sash is beyond repair, it is often possible to save the original frames and exterior trim. The cost of restoring historic windows is eligible for the city and possibly the state tax credit.

Window frames, the sashes and exterior trim deteriorated due to rain, snow, insects, wind-borne grit and pollutants. In addition, window glass may become loose due to deteriorating putty, and window hardware may become worn and inoperable. Historic windows should be regularly inspected and maintained. Consideration should first be given to repairing only the deteriorated portions using in-kind materials, that is to say, using the same type of materials as existing. Only if the deterioration is extensive, or parts of a window are missing, should replacing the entire window be considered.

The function of most historic windows can be restored by removing excess layers of paint, replacing the sash cords and replacing the sash locks. The addition of modern weather stripping installed by a restoration professional can improve a windows' weather tightness. Wood or metal sashes or other components suffering from minor deterioration due to improper maintenance of paint or window glazing can be very effectively restored with proper scrapping, sanding, priming and repainting.

Restoration of wooden windows in compliance with Maryland Historic Trust will be eligible for both City of Mount Rainier and Maryland State Tax Credits.

Window Sash

Historic window sashes are usually made of wood, although metal sashes may be found on some homes in Mount Rainier. Wood sashes are subject to deterioration due to rot, usually caused by improper maintenance of paint, or due to insect infestation. Metal sashes are subject to corrosion, also caused by improper maintenance of paint. Glass may become loose due to failure of the glazing putty.

Minor weathering or insect damage can be repaired using exterior rated wood filler. More extensive damage such as minor rot can be repaired using an epoxy wood consolidate after the affected area has been properly prepared. In more severe cases, it might be possible to avoid complete replacement of a window by scabbing-in (a method of repairing a portion of deteriorated wood by replacing it with new wood) new sections of wood, sized and profiled to resemble the existing.

Minor corrosion of metal sashes can be repaired by cleaning the affected area with a wire brush and repainting. More extensive corrosion may require that the affected areas be removed and replaced. If this is necessary, it is important that the replacement metal be the same type as the original, so that the new and existing materials expand and contract at the same rate.

If the putty that seals the joint between the glass and the muntin (dividing bars) is cracked or brittle it should be removed and replaced. The clips that hold the glass in place should be examined. If they are corroded or missing they should be replaced.

Replacing Windows

If a window is beyond the point where it is technically or economically feasible to repair, replacing the window sash and surrounds may be the only option. Since windows are almost always an important character-defining feature of a building, special care must be taken when considering their replacement.

The first step should be to survey the building's windows. In replacing windows it is important to identify and replicate the important characteristics which define the windows, such as their size, number of lights (window panes), profile, material and method of operation.

One particularly important feature of windows is the number and configuration of the lights. Prior to the twentieth century most new houses in this area featured large, two-over-two or one-over-one windows. This trend continued until the turn of the twentieth century when earlier architectural styles were revived and multiple-paned windows came back into fashion.

When replacing a window it is important to know if the existing windows are original and if not, are the replacements appropriate or inappropriate for the style and period of the house. For example, some houses have had their windows replaced with sashes that have inappropriate number of lites,

muntin profiles or types of glass. In these cases, new replacement windows should be designed to match the original windows and not the inappropriate existing windows. However, if the existing windows are original or appropriately designed replacements, they should be used as the basis for the design of new replacement windows. The Mount Rainier Design Review Board can assist in determining if the existing windows are original, appropriate replacements or inappropriate replacements.

If windows are of the double-hung configuration and the frames, sills and the exterior trim are salvageable but the sashes are seriously deteriorated, the most economical choice is to order sash replacements.

Sash replacements offer several advantages over complete window replacement. First, there is no need to completely remove the existing window frame from the wall and disturb the interior and exterior trim work and paint. Second, the replacement sashes will be insulated glass and can be ordered to match any existing lite pattern with many different types of energy efficient glass. Third, new sashes can be tilted in for easy cleaning; and lastly, the installation is relatively quick and inexpensive.

Most modern window manufacturers offer a variety of window designs and systems that can be appropriate replacements for original windows.

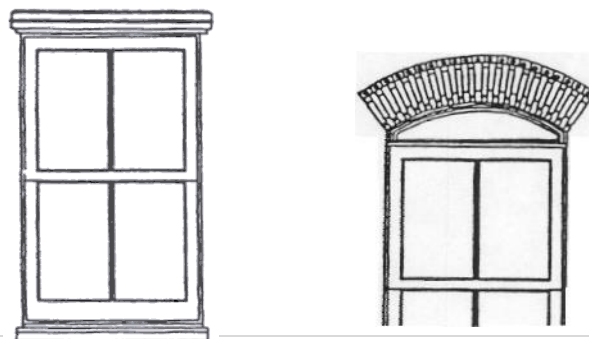
One last very important consideration when contemplating complete window replacement is maintaining the daylight opening. The daylight opening of an window is the dimension of the glass portion of the window.

To be eligible for the city tax credit, any replacement windows must maintain the existing or original daylight opening.

There is a type of window replacement that involves installing a new window “unit” inside the existing window frame. This type of replacement is NOT eligible for the city tax credit on street-facing facades. These types of units may be eligible for the city tax credit only when replacing non-street facing historic windows in conjunction with an approved street-facing window project.

Window Surrounds, Hoods, Lintels and Sills

Wood surrounds, hoods, lintels and sills may deteriorate due to rot, typically caused by improper maintenance of paint, or insect infestation. Masonry lintels and sills may be abraded by wind-borne grit or pollutants, or deteriorate due to mortar failure. Metal lintels, hoods and sills may corrode or become detached due to failure of the anchoring systems.



A building owner should first determine if repairing only the deteriorated lintel, surrounds, hood or sill using the same material and design as the existing is technically and economically feasible. Only if the deterioration is too expensive for selective repair, should replacing the entire surrounds, hood, lintel or sill in-kind be considered. In both cases, it is important that the repair or replacement be profiled and detailed to match the existing so that the character of the window is preserved.

When surrounds, hoods, lintels or sills are missing they should be duplicated in the original material based on photographic or other documentary evidence. If replacing badly deteriorated or duplicating missing surrounds, hoods, lintels or sills in the same material and design proves not to be technically or economically feasible, then a substitute material may be used if designed and detailed to match the existing.

This type of reconstruction is eligible for the city tax credit.

Altering Existing Windows

Changing the location, covering-up or changing the dimensions or the daylight opening of a window opening is rarely appropriate since it alters the character of the building.

Some original windows have been altered in the past. If the alteration is compatible with the character of the building it should be maintained. If not, the altered window should be replaced with one that is designed to be compatible with the original design or style of the building. The Mount Rainier Design Review Board can assist property owners in determining the significance of existing window alterations.

Changing Window Locations

The location of windows significantly contributes to the architectural character of the house. Window patterns contribute to the visual appearance of entire blocks thus making the location of windows one of their most important character-defining features. Altering the existing window pattern, either by changing the location or adding new windows to a façade, is strongly discouraged. If a home owner is considering changing the location or the dimensions of any windows, it is recommended they request a meeting with the Mount Rainier Design Review Board to discuss the proposed changes. Eligibility of any city tax credit will be considered on a case by case basis.

Blocking-up or Covering-up Windows

Blocking-up a window - that is, removing the sash and frame and filling in the opening - on a street-facing façade should never be considered since it will always significantly alter the original appearance of the wall. Blocking-up a window on a side or rear-facing façade may have less serious consequences on the overall character of a building, but still should only be considered if doing so does

not dramatically alter the appearance of the elevation. This type of work is NOT eligible for a city tax credit.

Covering-up a window - that is, leaving the sash and frame intact but covering them with wood or other material - is reversible and thus somewhat better than blocking-up the window. However, covering-up a window will also alter the appearance of the facade.

Reduced window openings and replacement windows – property owners should consult with the Design Review Board for assistance in determining what would be best for the property.

Any alterations to the exterior of a house, such as moving or blocking up a window in Mount Rainier requires both a Prince George's County and City building permit.

Adding Security Systems

Some windows contain security bars that should be maintained, repaired or missing, replaced. However, in most cases security systems are not original. While the need for security makes adding a security system to windows appropriate, the type of system selected should be compatible to the character of the window. For example, electronic security systems can often be added to existing windows without drastically altering their appearance.

Security bars are the most visually intrusive type of security system. If located outside the windows, their design should be as simple as possible as well as be compatible with the design of the window and that of the façade. If located inside the window, their design is not as crucial, but should still complement that of the historic window.

Anchors used to attach security bars should not damage important historic materials or details. For example, if attached to masonry, anchors should be located in the mortar joints, not through the masonry units themselves. If anchored into wood, they should avoid any details or ornamentation. Anchors should never be located through metal surrounds. Security bars and other fixed security systems must meet the City of Mount Rainier's building and fire codes.

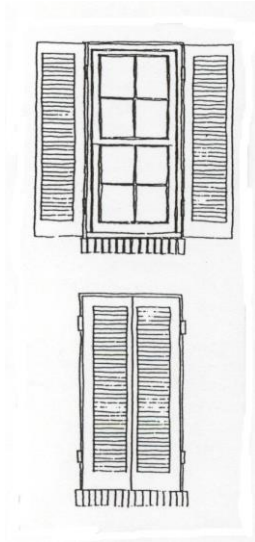
The restoration or addition of security bars or other security systems are NOT eligible for the city tax credit.

Adding Shutters

Shutters may or may not be appropriate additions to historic buildings. Adding shutters depends on the use and architectural style of a building as well as documentation of their previous existence on the building. Typically, shutters are found on many large free-standing residences.

Historically, almost all shutters were operable. Made of wood slats, they completely covered the window opening when closed allowing air to circulate but preventing sunlight from entering.

If shutters are missing or need to be replaced, existing shutters, photographic or other documentary evidence should be used to design the replacements. If adding new shutters is appropriate to the use and style of the building, they should be designed to be compatible with the size and design of the window. Even if the new shutters are inoperable, they should be sized to appear to cover the window when closed. The restoration of existing, original wood shutters or the replacement of missing original shutters is eligible for the city tax credit if the replacements are made of wood, are appropriately sized, and are hung on operable hardware.



Improving Thermal Efficiency of Windows

Home owners often wish to upgrade the thermal efficiency of windows. This can be done by adding weather stripping, caulking or installing new storm windows.

Weather Stripping and Caulking

Historic weather stripping is made from thin strips of copper, zinc or felt. Located between the sash and jambs it provides an almost air-tight seal. Modern weather stripping is made from copper or aluminum. If historic weather stripping is worn or missing, modern weather stripping should be installed.

Modern caulking compounds have replaced historic tar-impregnated hemp as the sealant between the jambs, head and sill and the window opening. Applying new caulking can help improve the energy efficiency of a building. Building owners should carefully select caulking that is chemically compatible with the materials of the window and wall. The caulking should also be of a compatible color.

Storm Windows

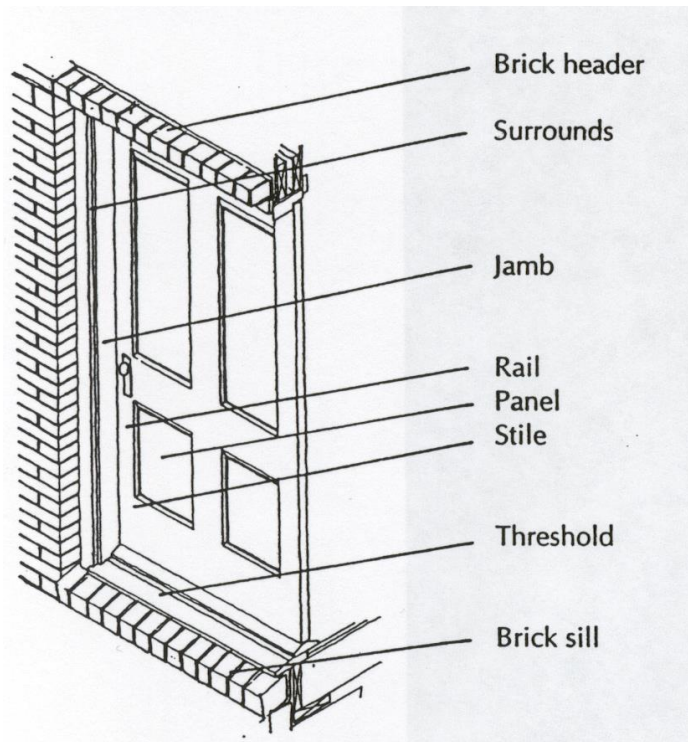
Unlike historic storm windows that must be removed and replaced with screens in the summer, modern storm windows consist of operable storms and screens. New exterior storm windows are usually made of aluminum, some with factory applied painted color or vinyl cladding. Sash and frame profiles matching the design of historic windows are often available. If not, they may be specially ordered from local suppliers. The restoration of existing original wood storm windows or the installation of new storm windows in lieu of complete window replacement is eligible for the city tax credit.



Design of Doors

The location and appearance of doors is as important a character-defining feature of an historic building as are the windows. Main entry doors, usually located on front facades, often employ richer materials and more elaborate designs than side, rear or service doors. In addition to allowing access into the building, main entry doors are typically designed to symbolically greet a guest.

Doors have a number of components similar to windows. The door opening is framed by jambs on both sides, a header at the top and a threshold at the base. Often the opening is framed by decorative surrounds or casing. The operable portion of a door is called the leaf, which may contain a glass panel or solid panels, rails and stiles.



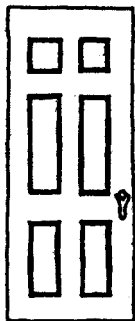
Residential Doors

The most important door on residential buildings is the front door. Depending on the building's type and architectural style, the front door may be located symmetrically or asymmetrically in the front façade. Residential front doors frequently contain a high level of detail and ornamentation. In addition to the front door, most residential buildings have a secondary door on the side or rear elevation. Typically, secondary doors are less elaborate than the front door.

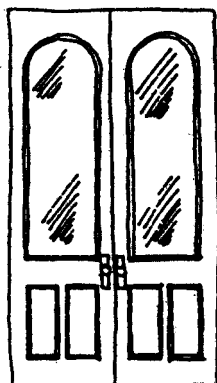
Almost all residential front doors are made of wood with raised or recessed panels. Many nineteenth century doors had recessed panels in-framed by raised molding. Today, most paneled doors contain recessed panels rather than raised moldings, making them appear much flatter. Some historic front doors incorporate plain, colored, stained, beveled or etched glass, panels. Secondary residential doors are typically also made of wood, and may or may not contain raised or recessed panels.



Four panel



Six panel



Double door with glass panels



Residential door surrounds are made of wood, brick or stone. Some door surrounds also contain metal hoods above the door. The surrounds of front doors are often more elaborate in detail and ornamentation than those found on secondary doors.

Maintaining and Repairing Doors

Doors are subject to similar forms of deterioration as are windows. Door leaves, surrounds and frames, particularly the threshold and lower portions of the jambs, may rot or become infested with insects. Brick and stone surrounds may erode or their mortar joints may deteriorate. Metal doors and surrounds may corrode or their anchoring systems fail. Door hardware may no longer function properly. The putty or gaskets holding glazing in place may crack or become loose.

When deterioration is first noticed, consideration should be given to repairing the door. If the deterioration is extensive, replacing the entire door in-kind should next be considered. Only after replacing in-kind has been determined not to be economically or technically feasible, should the building owner consider replacing the door in a substitute material.

Doors, Frames and Surrounds

Wood doors are subject to rot, usually caused by improper maintenance of paint, and to damage by insects. This is particularly true of wood thresholds and lower portions of wood surrounds. The preferred methods outlined for windows are equally effective on doors and their surrounds.

The deterioration of metal doors is primarily caused by corrosion. Minor corrosion can be cleaned by sanding or brushing, while more extensive corrosion may require cleaning with chemical solvents. If painted, the cleaned area should be primed and repainted immediately.

Door Hardware

Door hardware consists of hinges, knobs, pulls, mail slots, door bells, bottom rail-plates and closures. Hardware may be worn or missing. Typically, it is better to replace rather than attempt to repair worn hardware. Fortunately, in the past few years, period door hardware has become readily available. Replacement hardware should be of the same or compatible metal and design as the original.

Replacement of door hardware is not eligible for the city tax credit.

Replacing Doors

When rehabilitation is not technically or economically feasible, replacing the door leaf or the entire door and frame may be the only available option. There are three basic steps for replacing doors to insure eligibility for a city tax credit:

1. identify the appropriate replacement style door for the building;
2. find a company that manufactures the doors, and an installer; and
3. consult with the Mount Rainier Design Review Board *prior* to ordering the door or commencing with the installation

If the door is original, replacing the unit in-kind should be considered first. The replacement should be designed to match the existing in size, profile, number of panels, depth of reveals and other character-defining features. This is particularly important for main entry doors.

If using the same material to replace the original proves not to be technically or economically feasible, then the door may be replaced using a substitute material. It is important that the design and detail for the substitute material match that of the existing door. In addition, the new material should be chemically and physically compatible with surrounding materials.

If the original door was replaced with a door of inappropriate design, size, shape, profile or material, the building owner should consider replacing it with one of appropriate character. The design of the replacement should be compatible with the character of the building and fit within the size and shape of the original opening. If documentary or pictorial evidence of the original door exists, it should be used to design the replacement. Historic doors from neighboring buildings may also be used as the basis for the design of the replacement door. The Mount Rainier Design Review Board is available to assist home owners in determining door styles that would be appropriate for their style house.

Transoms, Side-lights and Fan-lights

Transom windows are located above doors. These types of windows usually consist of single or multiple panes of clear glass. They may also contain colored, etched or stained glass in decorative patterns. Transom windows may be fixed or operable.

Side-lights and fan-lights are windows on the sides and top of main entry doors. They are typically made of wood with the glass subdivided by muntins. Both are normally fixed.



Storm and Screen Doors

Historic storm and screen doors may be found on residential buildings in much of Mount Rainier's Historic District. Typically constructed of wood with interchangeable glazing and screen, their design and detailing should be compatible with the door. In-kind replacement or major rehabilitation of an existing historic wood screen or storm door is eligible for the city tax credit.

If a new or replacement screen door is being considered the building owner should make sure that the design, size, materials and color of the new storm door is compatible with the existing door and that clear glass is used. Aluminum storm doors that are one large lite, known as a "full view", are eligible for the city tax credit. The eligibility of storm doors of other configurations and made of other materials will be considered on a case by case basis.

Altering Existing Doors

Historic doors that have been inappropriately altered should be replaced with a door that duplicates, as closely as possible, the design and detailing of the original. In cases where the alteration is compatible with the character of the existing door and the building, or is deemed to have achieved significance in its own right, it should be maintained. Property owner should consult the Mount Rainier Design Review Board to assist with determining the appropriateness of door alterations.

Moving, Adding, and Blocking-up Doors

Just as with windows, moving or blocking-up existing doors, or adding a new door to an historic building will almost always change its character. If located on the primary façade, it is critical that the proposed alteration not significantly change the character of the façade. Moving, blocking-up or adding a door on a secondary façade may be less critical to the character of the building. However, altering doors on side and rear facades must be approached with care. Any structural alterations to the exterior of a house in Mount Rainier require both a Prince George's county and City building permit.

Security Systems

In some cases doors contain security grilles that should be maintained, repaired or, if missing, replaced. More often, new security doors are installed on historic buildings. Motion-detection alarm systems are the preferred method of adding security because they do not detract from the appearance of a door.

If security bars are used they should be as simple as possible, designed to complement features of the door and its surrounds, as well as fit within the door opening. If metal security doors must be installed, they should be designed, detailed and painted to resemble the original as well as fit within the existing opening. The installation of new security storm doors is not eligible for the city tax credit.

Improving Thermal Efficiency of Doors

Building owners may wish to upgrade the thermal efficiency of existing doors. This can be done by weather stripping, adding new storm doors or caulking. In addition, replacing worn sills may help to improve the thermal efficiency of a door.

Weather Stripping

Historically weather stripping for wood doors was made from thin strips of copper or other metal attached to the jambs and head. When the door was closed, the strip provided an almost air-tight barrier between the leaf, jambs and head. Modern weather stripping for metal doors is made of neoprene or other synthetic material. If the existing weather stripping is deteriorated or missing, it should be replaced in-kind. If the door is to be thermally upgraded, it may be possible to install new weather stripping.

Storm Doors

Adding a new storm door will also help to improve a building's thermal performance

Caulking

In addition to weather stripping and storm doors, caulking the joints between the door surrounds and opening will prevent air infiltration, thus upgrading the thermal efficiency of an existing door.



Sources for New Windows and Doors, National Park Service Series

Sources for Window Repair and Replacement

Many of the window companies listed below offer sash replacement packages that are less expensive than full window replacements, while retention of the wood frames maintains much of the appearance of the original windows.

Window Repair

Keith Byrd	202.638.5737	(window repair and replication)
Bi-Glass	202.638.5737	(retrofits insulated glass into existing sash)
The Craftsmen Group, Inc.	202.332.3700	(window repair, restoration and replication)
Mid-Atlantic Wood Works	703.401.4511	(window repair, restoration and replication)
Stephen Ortado	202.437.7567/686.0135	(window repair)
Alex Szopa	202.445.3039	(window repair, restoration and replication)
Mark Wesolowski	301.855.1913	(window repair and replication)

New Wood Windows

The following telephone numbers and websites are for headquarters of companies that make wood windows. *Pay close attention as you browse their catalogs. Although these companies manufacture wood windows, they also make other types of windows, many of which are not appropriate for historic buildings.* The company headquarters will give you the name of their local sales representative. Also, many of these window lines can be ordered through larger lumber suppliers, such as **People's** (301.927.2200), **TW Perry** (301.652.2600) or **Galliher & Huguely** (202.723.1000).

Eagle	800.453.3633	www.eaglewindows.com
Kolbe & Kolbe	715.842.5666	www.kolbeandkolbe.com
Jeld-wen (incl. Pozzi & Norco)	800.257.9663	www.jeld-wen.com
Lincoln Windows	715.536.2461	www.lincolnwindows.com
Loewen Windows & Doors	613.822.6291	www.loewen-window-centre.com
MN Windows	800.999.9771	www.mwwindows.com
Marvin Windows & Doors	800.346.5128	www.marvin.com
Pella Windows & Doors	800.597.3552	www.pella.com
TrimLine Windows Inc.	800.213.6100	www.trimlinewindows.com
Weathershield	800.222.2995	www.weathershield.com

Some of these companies provide installation services, while others simply provide windows for a contractor to install. Check the Yellow Pages under "Windows" for independent installers. Another source is the Mount Rainier Yahoo Group List-serve for a list of contractors that other members of the community have used with good experience. Many of the contractors on this list are members of the Mount Rainier community and deserve supporting whenever possible. As with any contractor, make sure the company is licensed and bonded in Prince George's County and can provide references of

comparable work. Photographs may present ideal conditions, so visit prospective contractor's previous projects in person if possible.

Sources for Door Repair and Replacement

Community Forklift	301.985.5180	www.communityforklift.com
House of Doors	703.751.9000	www.houseofdoors.com
The Craftsmen Group, Inc.	202.332.3700	www.thecraftsmengroup.com
The Window Warehouse	301.779.5283	www.wdwarehouse.com

The following are phone numbers and websites for the headquarters of some national companies that provide wood window and doors. May of these lines are carried by or can be ordered through the larger lumber supplies, such as **Smoot** (703.823.2100), **TW Perry** (301.652.2600), **Gallaher & Huguey** (202.732.1000), and **The J.F. Johnson Lumber Company** (301.621.7667 or 301.858.5277); the websites typically provide a list of local distributors.

Andersen Windows (and doors)	www.andersenwindows.com
Jeld-Wen Windows & Doors	www.jeld-wen.com
Kolbe & Kolbe Windows & Doors	www.kolbe-kolbe.com
Pella Windows & Doors	www.pella.com

Research Resources

The following technical publication series entitled "Preservation Briefs" is available from the National Park Service and may be of particular interest to the building owner. To see the full list of Briefs, and ordering instructions, go to www.nps.gov/history/hps/tps/briefs :

Preservation Briefs 9:	The Repair of Historic Wooden Windows
Preservation Briefs 13:	The Repair and Thermal Upgrading of Historic Steel Windows
Preservation Briefs 17:	Architectural Character: Identifying the Visual Aspect of Historic Buildings and an Aid to Preserving the Character
Preservation Briefs 33:	The Preservation and Repair of Historic Stained and Leaded Glass
Preservation Briefs 35	Understanding Old Buildings: The Process of Architectural Investigation

See Mount Rainier Code, *Chapter 2A of the Historic Preservation Tax Credits*.

