



WISCONSIN  
HISTORICAL  
SOCIETY

## Wisconsin SHPO Guidelines for Planning Historic Preservation Tax Credit Projects

INCOME-PRODUCING TAX CREDIT PROGRAM

### INTRODUCTION



The State and federal programs require that all tax-credit related work must meet the Secretary of the Interior's Standards for Rehabilitation

(Standards). This pamphlet is designed to provide guidance about how the Standards are interpreted for various types of preservation work; however, because

there are a wide variety of historic properties, it is impossible to provide a complete set of guidelines to address every situation. This pamphlet is directed to the most common preservation projects. If after reviewing this document you have additional questions about the proposed project, please contact your regional reviewer:



Eastern District: Paul Porter at 608-264-6491  
or paul.porter@wisconsinhistory.org.

Western District: Andrea Herries at 608-264-6490 or  
andrea.herries@wisconsinhistory.org.

### SITE WORK

Most types of site work are allowable, if: the work does not destroy significant archeological remains or landscape features; does not encroach on any historic buildings; and does not introduce incompatible new features to the site.

**Regrading** should be limited to areas away from the historic property or at the rear of the historic building. You should avoid changes in the ground level near the historic building. New plantings and sidewalks are usually acceptable if the character of the site is not changed. Parking areas should be located at the rear of a site and in most cases should not abut the historic building.



**Archaeological remains** are any prehistoric or historic archaeological deposits or features that may exist. Significant archeological resources affected by a project must be protected and preserved. If such resources must be disturbed, mitigation measures must be undertaken. If human remains are discovered, cease work at that location and immediately call 800-342-7834

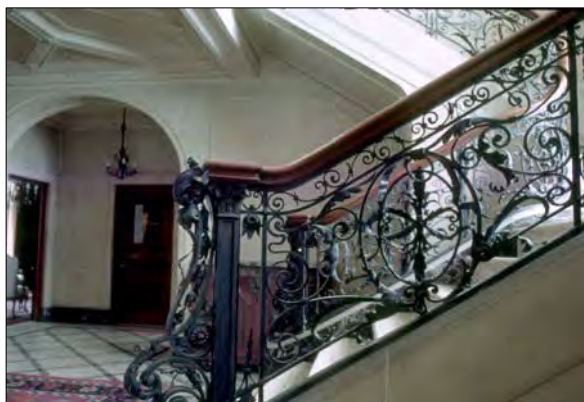
## BUILDING EXTERIOR

A primary facade is one that is visible from public right-of-way and, in most cases, has significant architectural detailing. A secondary facade is one that is generally visible from public view but may not contain as many distinguishing architectural features. A rear facade is one that is usually not seen by the public and contains little architectural detailing. As a rule, primary facades should be left intact, while rear facades may sometimes be altered more substantially.



## REPAIR OF ORIGINAL FEATURES

Repair, rather than replacement, of any features such as railings, storefronts, column capitals, a dormer or a parapet, is always strongly encouraged. If replacement is necessary, documentation of the deteriorated condition of the feature must be submitted. Only those portions of any feature that are deteriorated should be replaced.



## EXTERIOR BUILDING CLEANING

Removal of dirt or paint from exterior brick or stone is appropriate if the method does not harm the building materials. Because every method of exterior cleaning carries some risk of damage to masonry materials, you should consider carefully whether to clean the building at all. In most cases, removal of dirt or paint is unnecessary to preserve a building.

The Standards specifically prohibit sandblasting in any form (except to clean cast iron, as discussed below). Other forms of blasting are equally damaging and therefore also prohibited such as soda blasting, corn cob blasting and nutshell blasting. High pressure water blasting is equally damaging. Water pressures above 1000 psi can damage most building materials. Water pressure can be used safely at 1000 psi with the spray wand a minimum of 12" away from the surface.



Building materials vary widely in composition. Chemicals that may be applied safely to one building can result in severe damage to another. NPS requires that a cleaning test panel be applied to an inconspicuous part of the building prior to cleaning the entire building. The owner and/or architect should inspect the test panel for possible damage to the building materials, including mortar joints in masonry walls. The approved test area should be used as a standard by which the rest of the cleaning is evaluated.

Before cleaning metal elements, you need to determine if the metals are ferric or non-ferric. If exterior metal elements are ferric (iron-based) you need to determine if those elements are cast iron or coated metal. Generally, cast iron is used in storefront columns and trim; otherwise, metal trim is likely to beterne or zinc coated steel. Cast iron may be sandblasted to remove dirt or paint but coated steel should be hand-scraped. Sandblasting coated steel will remove the protective coating and will ultimately lead to severe rusting. We recommend that non-ferric metals simply be

## REPOINTING

Repointing refers to the replacement of deteriorated mortar in brick and stone walls. Only deteriorated mortar joints should be repointed. If done properly, the repointed joints will closely match the existing joints and should last for 30 years.



Hand chiseling is the mortar removal method least likely to cause damage to the brick or stone.

Removing mortar with saws, grinders,

or power chisels must be done carefully and by an experienced mason. For example, if the mason is not experienced using a circular saw, it is quite easy to cut into the brick or stone at the head joint. Damaging the brick or stone during repointing is not acceptable.

The composition of the new mortar must match the existing mortar. New mortar should contain enough hydrated lime to make it softer than the brick or stone. Unless examination reveals that the original mortar is unusually hard, the building should be repointed using mortar that is no harder than ASTM Type N, which consists of 1-part Portland cement, 1-part hydrated lime and 6 parts sand. ASTM Type O is a slightly softer mortar consisting of 1-part Portland cement, 2- parts hydrated lime and 9-parts sand.

The appearance of the new joints should match those of the rest of the building.



**Example of mismatched mortar**

Mismatched mortar joints can result in a "patchwork quilt" appearance. The primary concerns are the color of the replacement mortar and the tooling. White Portland cement can be used along with appropriate coloring agents to match existing mortar color. Using standard, gray Portland cement usually results in joints that do not match the original color. In addition, if the tooling of the new mortar joints does not match the original, they may appear to be wider than the rest.

We recommend that the mason complete a test panel (a sample area of repointed joints). Once the test panel is inspected to determine that the masonry has not been damaged, and the mortar matches the appearance of the existing, the remainder of the building can be repointed.

## REMOVAL OF BUILDING ADDITIONS

Demolition of an existing building on or adjacent to the site of a historic building may be allowable if it does not contribute to the significance of the historic building or its context. On the other hand, just because a building or addition is not original to a property does not always mean that it can be demolished; it may be historically significant.

A determination of whether a building is considered historically significant may be found in a National Register of Historic Places nomination for the property or district. Contact the State Historic Preservation Office at [askshpo@wisconsinhistory.org](mailto:askshpo@wisconsinhistory.org) for a determination of significance for any building proposed for demolition.

## CONSTRUCTION OF NEW ADDITIONS

Building additions should be designed so that the character-defining features of the historic building are not changed, obscured, damaged, or destroyed. The appropriateness of a new addition to a historic building is determined largely by its size and location. An addition should be constructed on the least visible side, such that the historic building remains the most prominent element from the public view.

New design should always be clearly differentiated, so that the addition does not appear to match the historic building. Existing materials and detailing may inspire the new design, but the addition should also stand as a contemporary design.

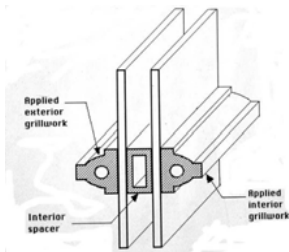
The physical connection between the historic building and the addition should be made as small and least physically disruptive as possible. The original massing of the historic building should be retained; meaning any addition should be offset at the corner. Both the link and offsetting the addition makes the process reversible. If, at some point, a future owner wanted to remove the addition, it would allow them to do so with minimal damage to the historic building.



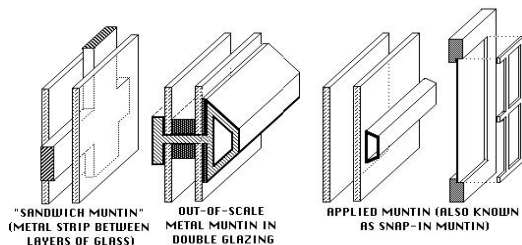
## WINDOW REPLACEMENT

Historic features, such as windows, must be repaired before replaced whenever possible. To request to replace windows, you must demonstrate that the existing windows have deteriorated beyond repair. This requires photographing all windows of a small building or a representative sample for each elevation of a large commercial building. Both the interior and exterior conditions must be photographed. These photos must be keyed to building elevation drawings.

If windows are determined to be deteriorated beyond repair, their replacements must duplicate the appearance of the original windows, including the muntins (dividing bars), the proportions of the original windows, the thickness of the sash elements, and the material and finishes.



### ACCEPTABLE REPLACEMENT MUNTIN



### UNACCEPTABLE REPLACEMENT MUNTINS

Accurately recreating the muntins (window dividers) is an important detail of replacement windows. Muntins that are sandwiched between the glass, placed on just one side or the other, or that don't match the historic profile are unacceptable. Muntins must be permanently attached to the exterior, the interior, and have a spacer bar between the 2 panes of glass. In doing so, the depth of the original shadow lines is recreated.

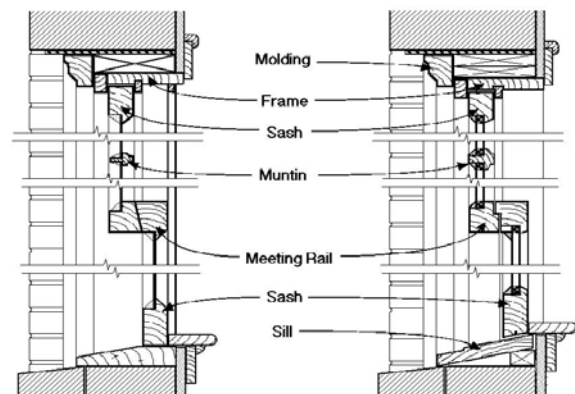
The use of tinted and reflective glass is not allowed. Low-E glass is allowable as long as the Visual Light Transmittance or VLT is 72 or higher.

Generally, in buildings that are 1-3 stories in height, wood windows are required to be replaced with wood windows. Buildings taller than 3-stories that have windows deteriorated beyond repair can replace the wood windows with wood or aluminum. It is acceptable to have wood replacement windows with metal clad at the exterior if the metal conforms in shape to the existing window moldings. The metal clad or aluminum cannot have an anodized finish but rather must have a powder-coated paint or baked on finish.

When aluminum windows are used as substitutes for wooden windows, the glass must be set back from the faces of the frames by approximately the same distance as in wooden windows which, typically, would have a putty line. To illustrate this concept, the glazing in wooden windows is held in place with either putty or wooden stops which set the glass approximately 1/2" back from the face of the window frame. On the other hand, the glazing in many aluminum windows is held in place by a metal flange. The result is that the glass is set back from the frame by only about 1/8" which causes the window sashes to look "flat" and out-of-character with most historic buildings.

To change window materials, you must be able to demonstrate that using the historic material would not be technically or financially feasible.

To demonstrate that the proposed replacement windows match the originals, you must submit comparative window section drawings, showing the head, sill, jamb, and muntin sections of the old and the new windows.



Original Window

Proposed Replacement

### COMPARATIVE WINDOW SECTIONS

## STORM WINDOWS

To improve the energy efficiency of the historic windows, you may wish to install interior or exterior storm windows. New storm windows can be either wood or aluminum. Aluminum combination windows are acceptable if the window tracks are mounted flush with the face of window openings and the proportions of the storm windows match those of the original windows. Aluminum storm windows must have a painted or baked-on finish, rather than an anodized finish.

## CHANGES TO WINDOWS

Original window patterns should not be changed on primary facades. On secondary facades, minor changes may be made, but these must be in keeping with the overall window patterns of those sides of the building. On rear facades with limited public visibility, more significant changes can usually be made; however, they must be in character with the rest of the building.



On masonry buildings, when original windows are closed-in, the infill material should match that of the wall and should be inset from the face of the wall at least two inches. Non-original windows can usually be closed flush to the wall surfaces with

materials to match the adjacent wall.

For new windows, the application should contain drawings like those specified in the window replacement section.

## ROOF REPLACEMENT

Generally flat roofs that are not visible from the street can be replaced with modern roofing materials.

## MECHANICAL, ELECTRICAL & PLUMBING SYSTEMS

In most cases, mechanical, electrical and plumbing work will have no effect on the historic qualities of a rehabilitated building; however, these items must be addressed in the application. Installation of new mechanical systems should be described in the most detail, since it is likely to affect significant spaces.

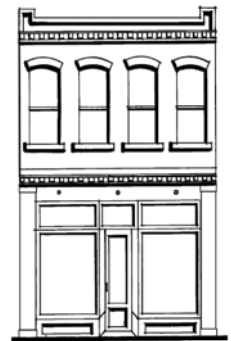
## STOREFRONT

Rehabilitation of storefronts, either historic storefronts or those that have been altered, requires careful consideration. The first step is to uncover features of the storefront that still exist. Often, when storefronts were altered, original features were simply covered rather than removed.



You may find, through selective demolition, enough of the original storefront design to continue its restoration. If, little or no original features remain, the next step is to locate any historic photos of the building.

Historic photos can be very helpful in recreating a lost storefront. If historic photos do not exist of the building, a new design will be needed. While considering the age and style of the building is important, there are common elements found on many commercial buildings such as sign boards, transom windows, and recessed entries. Storefront designs that vary from this traditional storefront design should be avoided unless you have historical documentation that supports the design.



## INTERIOR TRIM ALTERATIONS

The Standards consider both highly decorated features (such as grand staircases) and characteristic features (such as original window trim) to be significant and should remain intact. If original features must be removed during construction, they should be reinstalled (or, if this is impossible, reproduced) in their original locations. Avoid moving original decorative elements to new locations as this can create an interior that looks to be original but is actually a collection of original building artifacts applied in non-original locations over new construction. Likewise, interior trim for new walls should be generally of the same type and proportion as the original trim but should not duplicate it exactly.

## INTERIOR WALL ALTERATIONS

Significant interior spaces must be preserved. The Standards do not allow total gutting of a building, unless the interior has been completely altered in the past and possesses no significant features or spaces. Significant interior spaces include both those that are highly decorated and original (such as hotel lobbies) and those that are characteristic of the buildings in which they are contained (such as school auditoriums and corridors).

In evaluating which spaces can be changed in an interior, you should determine which spaces are primary and which are secondary. Primary spaces are those that are important to the character of a building and should always be preserved. Because there are a wide variety of historic buildings, each with its own type of significance, there are no absolute rules for identifying primary spaces.

In general, public spaces are primary spaces and should be preserved largely intact whereas non-public spaces may be more altered. For example, the public spaces in a school building would include the corridors, entrance lobbies, stairwells, and auditoriums. These should be left intact. On the other hand, the non-public spaces, such as



classrooms and offices, can be altered, if there are no highly significant features present. In office buildings, the public spaces would include the hallways, lobbies, and any decorative stairways. Public spaces in churches would include most of the interior features. On the other hand, there may be few or no public spaces in many warehouses and factories.

When interior walls are proposed to be changed, you will be required to submit both an existing and proposed floor plan. The existing floor plan should also document any walls that are planned to be removed as part of the project.

## CHANGES IN ROOM FINISHES

Covering original finishes (e.g.

stenciling),

removal of plaster

or wooden

elements (e.g.

cornices or

wainscoting), or

the application of textured wall paints on original plaster is not appropriate and should be avoided.

Similarly, the removal of plaster to expose brick or stone is not appropriate. Historically, brick would be left exposed only in utilitarian structures such as mills, factories, or warehouses. Typical commercial buildings and residences would have usually had finished plaster walls.



Avoid removing or permanently damaging decorative flooring, such as tile, marble or wood.

Lowering ceilings, particularly those in public spaces, should be avoided. If you propose to lower ceilings, they should not be dropped below the level of the tops of the windows unless they are revealed upward at the windows for a distance of at least five feet from the outside walls. Installing plywood panels, spandrel panels, or opaque glazing in the upper portions of windows to hide suspended ceilings is not allowed. In spaces where ceilings are to be lowered or repaired, and the original ceiling was plastered, you should install suspended gypsum drywall (or plaster) in lieu of suspended acoustical tile.

## FOR FURTHER INFORMATION

Additional information regarding common historic building projects is published by the National Park Service.

### The Standards for Rehabilitation:

<https://www.nps.gov/subjects/taxincentives/secretary-s-standards-rehabilitation.htm>

### The NPS Preservation Briefs:

<https://www.nps.gov/orgs/1739/preservation-briefs.htm>