

Windows & Doors



St. Joseph Landmark Commission

Windows and doors are important building components that influence architectural character through their location, pattern or arrangement, shape, size, proportion and style. They are also functional elements that provide natural light, ventilation and visual connections between the building interior and the outside world.

Window styles have reflected changes in technology through time and, for this reason, are important indicators of a building's architectural style and age. Most windows in the City's historic districts are made of wood and are comprised of double-hung sash. Generally, the earlier the window, the smaller and more numerous the panes of glass in the sash. Early windows were often made by hand and constructed with pegs. Most windows found in St. Joseph's historic districts are mass-produced. Window styles display a remarkable diversity indicative of Victorian and post-Victorian eclecticism. 2/2 (pronounced "two over two") and 1/1 double hung window sash are the most common window types found in domestic architecture and in the upper stories of older commercial buildings. The former is found more typically on Gothic Revival and early Italianate style buildings constructed in the 1860s through the 1880s, while the later is more prolific throughout the remainder of the late 19th and early 20th centuries. Window sashes in a 6/6 and 6/1 configuration are common on Colonial Revival and Bungalow styles. Casement style windows, popular during the early 20th century, were often incorporated into bay windows and for sun porch enclosures. Large plate glass windows were typically found in the storefronts of commercial buildings and were meant to provide a glimpse of the merchandise offered for sale within. Window groupings also were popular in commercial structures, particularly in the upper stories.

Leaded, colored, beveled and stained glass windows are also found in the historic districts. In the late 19th century, St. Joseph had an established cottage industry devoted to the production of art glass windows. The German-born Paul Wolff, owner of the St. Joseph Art Glass Works, was the City's leading manufacturer of stained glass in the 20th century. He operated the successful business until his death in 1960. The business closed in 1965. While many windows were undoubtedly out-of-town commissions, builders in St. Joseph benefited from the availability of windows from local sources. For this reason, decorative windows are found in elaborate mansions, modest cottages, churches, and commercial buildings throughout the City. Leaded and stained glass windows are typically found in transom windows above larger parlor windows on the front of a house or at bay windows or surrounding doorways. Smaller windows were frequently installed on either side of a fireplace or, in some instances, over a fireplace between a divided chimney flue. Stairway landing windows often contained elaborate window designs. Commercial buildings often incorporated stained glass windows in transoms above storefronts or at bay windows on primary elevations. Tragically, many windows have been removed from homes over the years and have left the City to be incorporated into new homes or businesses. However, many fine examples survive today in their original locations and should be preserved.



St. Joseph has a rich collection of stained glass windows still found in homes, churches, commercial, and civic buildings. Windows such as those found here in the stairway of the John S. Lemon house, 517 N. 5th Street, Robidoux Hill Historic District, express the opulence of the City's Victorian architecture.

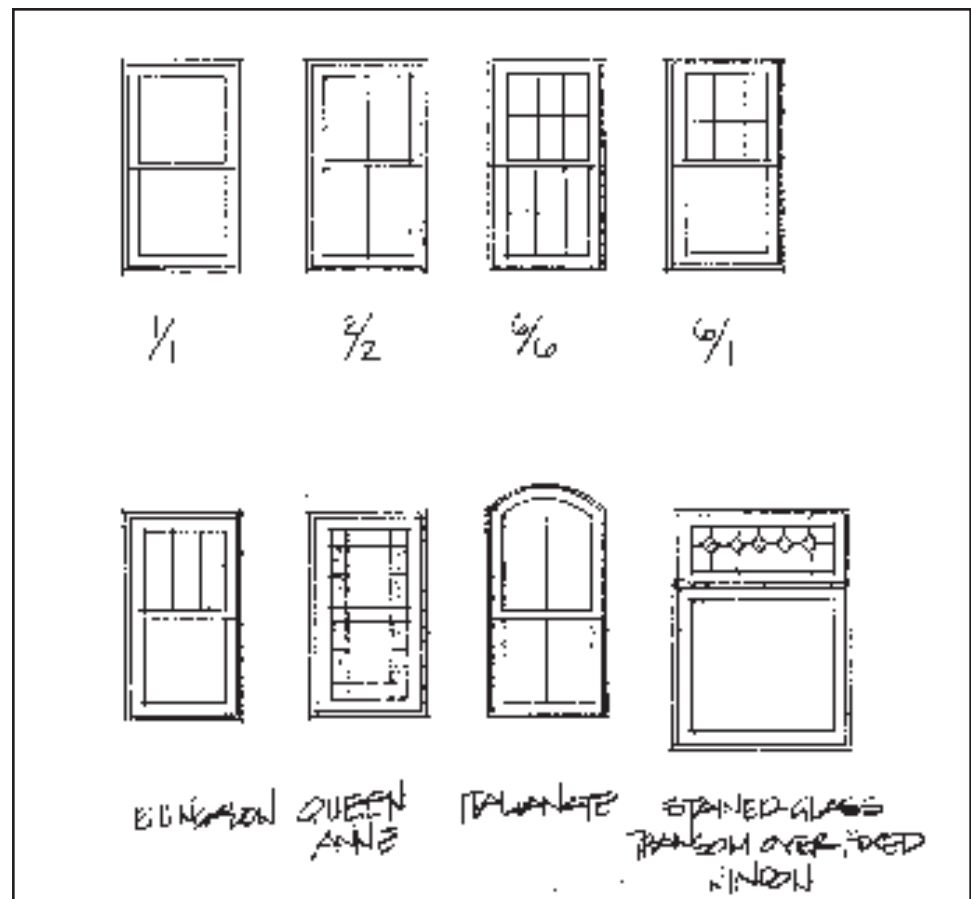


Windows & Doors

Although there exists a variety of window styles and types, in general most windows are tall and narrow and have a vertical orientation. Window sashes are almost exclusively of wood construction. The frame of the sash is constructed of horizontal rails and vertical stiles. The two overlapping rails in the center of the double hung window are called meeting rails which are specifically beveled to form a weather tight seal when they are fastened together with a sash lock. Muntins are the thin pieces of wood that divide the glass in each sash. Boards on the top and sides that frame the window opening are called jambs.

Nearly all double hung windows manufactured in the late 19th and early 20th centuries operate with a system of sash cords and iron counterweights that allow the window to hold in a stationary position.

Like windows, wooden exterior doors in the City's historic districts exhibit a remarkable amount of diversity. Solid panel doors and doors with fixed glass upper panels are typical. However, applied ornamentation; varied raised and flat panel configurations; decorative false wood graining and varnish treatments; and ornamental leaded, beveled, etched and opaque glass create variations that reinforce each building's architectural character. Original doors should be retained to protect the integrity of the historic resource.



Windows & Doors

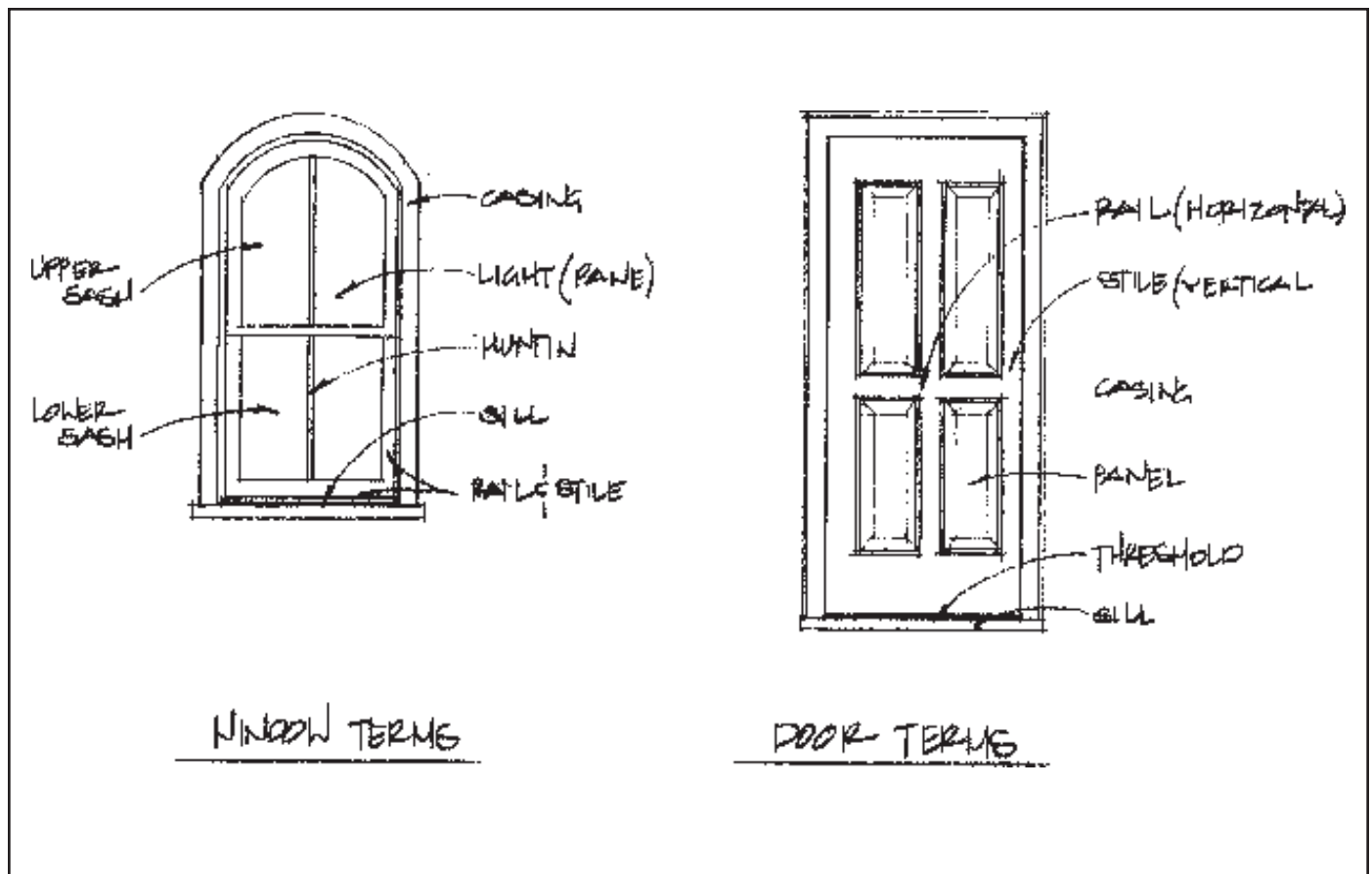


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Repair and Maintenance

Because of their constant use and exposure to the elements, windows and doors are vulnerable to rot, decay, and energy loss. Rainwater and condensation play havoc throughout the life of wooden windows, in particular. Recurrent moisture, coupled with peeling paint and the cracking of glazing compound holding the window glass, can severely weaken wood structural members over time and cause the structural breakdown of window units. See guidelines for EXTERIOR WALLS, TRIM, AND ORNAMENTATION and PAINT AND EXTERIOR COLOR for information on the proper care and protection of wooden elements.

Repair of deteriorated original window sash and doors is preferable to the wholesale replacement of these building components. If rotting of wooden elements is localized, its progress can be chemically retarded, and the voids in damaged wood filled with epoxy consolidants, sanded and repainted. Deteriorated sections can also be removed and replaced in-kind at often a fraction of the cost of wholesale window replacement.





Windows & Doors



Avoid blocking in, covering over, or reducing the size of original window openings. Such changes can radically alter the appearance of an historic building.

If deterioration is extensive and replacement is warranted, every effort should be made to replace the door or window unit in-kind. Care should be taken to match the original in terms of dimension, configuration, material, size, detail, location and style. New window units must have true divided light muntins or three dimensional grilles that are placed both on the inside and outside of the window.

In commercial buildings where window replacement is under consideration, efforts should be made to replicate window dimension and design. In multi-story buildings, aluminum/vinyl replacement sash that closely matches the original dimension and design of the window may be considered by the Commission on primary facades in those upper-stories where the visual impact of the window replacement would be minimal. Aluminum and vinyl replacement sash may also be considered for non-street facing elevations above the ground story. Applicants are asked to provide Commissioners with product information at the time a COA application is filed and to bring a sample of the sash to the meeting in which the request is considered.

Energy efficiency is a valid concern when evaluating window and door condition. Maintenance of window glazing, caulking, and weatherstripping around window and door units can improve energy conservation. It may also be possible with minimal alteration to retrofit existing window sash with double insulated glass. Replacement of glass and use of original sash are preferred over wholesale replacement of the window unit. Wood exterior storm windows are another energy conservation option. Such windows should

match the size of the original windows and have their stiles and rails align with the original window. Exterior aluminum storm windows may be used as a substitute for wooden storm windows, provided they have a painted or baked-on enamel finish that matches the color of the window sash or the paint scheme of the building. Storm window glass must be clear and should not cover any significant historic trim. The storm windows should be as flush as possible with the window opening. Caution should be exercised in covering stained glass windows with protective coverings. Such coverings may accelerate the deterioration of the lead coming that holds the glass in place and contribute to the failure of the window.

Windows & Doors



St. Joseph Landmark Commission

Wooden screen and storm doors may be used with exterior doors. If original screen/storm doors survive, then they should be retained. Replacements should be similar in appearance to the originals. When a new screen/storm door is introduced, care should be taken to match the original door size and align the stiles and rails of both doors to prevent the obscuring of architectural features or the view of the original door. Full view metal storm doors may be used in lieu of wooden storm doors. Such doors should have a painted finish and a clear glass insert.

Exterior shutters or blinds were originally an integral part of a house's window unit and may still survive on some properties within the City's historic districts. These window elements were intended to be both functional and decorative. Shutters/blinds should be constructed of wood. The dimensions of shutters or blinds should be proportionate to the window opening. They may be either operable or fixed, but should be provided with the appropriate hardware (hinges and holdbacks) in either case. Shutters and blinds nailed or screwed directly to the wall are not appropriate.



Chamfered stiles, rails and beaded board panels are common elements of late 19th century carriage house doors, as seen here at the Nelson-Riley Carriage House, 605 N. 5th Street, Robidoux Hill Historic District.



Window detail of the Chesley Mossman house, 619 S. 13th Street.
(Photo courtesy of Roger Martin.)

Windows & Doors

Windows & Doors: Guidelines

1. Retain and preserve historic windows and doors, including sashes, glass, lintels, sills, trim, shutters, hardware and decorative molding.
2. Follow a routine program of inspection and maintenance of windows and doors to avoid deterioration:
 - Maintain a sound paint film on all wooden windows and doors.
 - Check sills and thresholds to ensure that water runs off and does not collect.
 - Maintain glazing putty around window glass to prevent air and water infiltration, thus improving energy efficiency.
 - Weatherstrip and caulk windows and doors to prevent moisture and air infiltration.
3. Repair historic doors and windows as an alternative to wholesale replacement. Employ the use of epoxy consolidants to reinforce and rebuild deteriorated wood or replace only damaged sections with new wood.
4. Replace windows and doors in kind only when these building components are too deteriorated to repair. Match the original in terms of dimension, configuration, material, size, detail, location, and style. In commercial building applications, aluminum and vinyl replacement windows that closely match the dimension and style of the original window may be considered for upper stories and non-street-facing elevations.
5. Avoid the use of window units that have false muntins or window grilles. New windows should have true divided light muntins or three-dimensional grilles on both the interior and exterior of the window glass.
6. Avoid blocking in, covering over, or reducing the size of original window openings. In cases involving the mothballing of vacant buildings, plywood covering may be used as long as the plywood is painted and is sized to fit the original opening. This is deemed a temporary treatment that is not intended for long term use.
7. If exterior storm windows are desired, wooden storms are preferred. If metal storms are desired, select a product that has a baked-on enamel finish to match the color of the house's window sash. Install storm windows that do not obscure the existing window and trim. Interior storm windows are recommended as an alternative to exterior ones.
8. Select screen/storm doors that are wood and complement the style of the exterior door. Stiles and rails of both doors should align. Choose door designs that do not obscure the exterior principal door. Metal storm doors that have a painted finish and provide a full view of the exterior door with a solid sheet of glass may be used. Such metal storm doors should not be used as a replacement for original wooden storm doors.

Windows & Doors



Windows & Doors: Guidelines Continued

9. Avoid replacement of clear glass in windows and doors with tinted or frosted glass, particularly on primary elevations visible from the street. Replacement with clear double-insulated glass is acceptable provided there is minimal alteration to the original window sash.
10. Avoid placement of new window and door openings in primary view areas. Ensure that these new openings will not diminish the original design of the building or damage historic materials and features.
11. It is not appropriate to paint exterior doors that were historically false grained or stained and varnished if such features are exposed and survive.
12. Avoid the placement of metal awnings over window and door openings. Fabric awnings may be used for both residential and commercial properties. Install awnings in such a manner that they do not conceal architectural features or damage historic building fabric. Choose colors and patterns that harmonize with the building and do not compete with it.
13. If shutters/blinds are desired, use wooden shutters/blinds that relate proportionately to the window opening. They may be either operable or fixed and shall be provided with operable hardware (hinges and holdbacks) in either case.
14. If additional attic dormers are desired, place them in side and rear elevations so that they do not alter the primary façade elevation.
15. Avoid the placement of skylights in roof locations that are visible from the public right-of-way.
16. Refer to guidelines for WOOD SIDING, TRIM, AND ORNAMENTATION and PAINT AND EXTERIOR COLOR for additional information pertaining to the maintenance and preservation of wood building components.