



Subject: New Infill for Historic Loading Door Openings

Applicable Standards: 2. Retention of Historic Character
6. Repair/Replacement of Deteriorated or Missing Features Based on Evidence

Issue: Retaining loading bay doors in buildings such as warehouses and other industrial and manufacturing buildings is important for maintaining the historic character of these structures. Often grouped along one or more facades, these openings are commonly fitted with wood or metal segmental doors that ride on overhead tracks or roll-up metal doors. However, double hinged, sliding, and other types of doors can also be found. Other distinguishing features associated with these openings are corner-guards, bumper guards, and the fact that they are usually elevated above the ground.

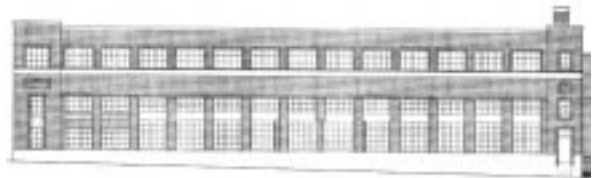
During rehabilitation it is often necessary to make modifications to loading entrances and doors in order to accommodate new uses and tenants. When retaining the historic loading doors is not possible, or when the historic doors have been previously removed, special consideration should be given in the design of new replacements. Inappropriate alterations to these features may have a significant effect on the visual appearance of a building, one that may radically change the historic character of a property and cause a project to be denied certification. When evaluating proposed new treatments for historic loading entrances the question of whether or not the historic function of the opening can still be perceived should be asked. Does the new infill convey in its design the principal visual qualities of the historic door and openings, or does it read more as a window or storefront?

Application I (*Incompatible treatment later modified to meet the Standards*): The initial proposal for the conversion of this 1927 warehouse building into office space included the removal of the existing loading bay doors and infill of the cargo bay openings with a new glazing system. The proposed new aluminum windows were designed to simulate the pane configuration of the existing steel sash windows above. These alterations not only obscured the original function of these openings, but also gave this highly visible façade a completely new character. After review, the project was given a preliminary certification with conditions. Retaining the historic character of this elevation was essential in order for the project to be in conformance with the Standards.

Retaining the remaining wood overhead doors and duplicating their design to replace the missing doors would have been the preferred option. Modifications such as replacing some of the upper wood panels with glass in order to provide natural light inside would have been appropriate. Unfortunately, the historic doors could not be saved. Replacing the original doors with a new glazing system was approved with the condition that the new infill design resemble the segmented panels of the historic wood doors. In addition, some solid panels needed to be incorporated in the design.



Cargo bay doors are incorporated within the fenestration rhythm. Some of the existing openings have been enlarged and later metal roll-up doors installed.



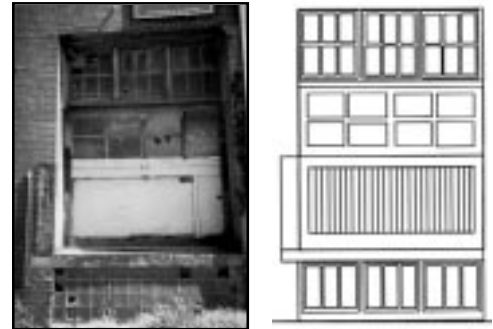
With the proposed glazing system all evidence of the former cargo bay doors is obscured. Modifications to the proposed design such as altering the light pattern to resemble the original door panels as well as adding some solid panels need to be made in order to bring the project into conformance with the Standards.

Application 2 (*Incompatible treatment later modified to meet the Standards*): A similar office and retail conversion was proposed for this 1910 warehouse building listed on the National Register of Historic Places. The loading bay doors on the west and south elevations of this building are integral features in this building's design. Prior to this rehabilitation, most of these doors had been removed and the existing openings infilled with various materials. Only a single deteriorated and previously altered door remained. It shows a unique configuration, consisting of a horizontally-bifolding door with a solid lower panel and glazed upper section with transom windows filling the upper third portion of the masonry opening. Clearly these doors added another layer of detail to the design of the structure; although functioning doors were not needed or desired for the new use of the building, the surviving door and transom were used as a model for the design of the new infill. This treatment was consistent with the Standards.



A series of cargo bay doors across the first floor is a prominent element of this façade.

Application 3 (*Compatible treatment*): A creative solution for retaining the character of the existing loading entrances was used in the rehabilitation of a small 1932 warehouse. This simple one-story brick building is a contributing structure in a historic district. A series of four loading entrances with pairs of steel sash windows between each door opening establishes a rhythmic pattern along the side elevation. Nearly all historic interior finishes were removed in previous renovations.



The image on the left shows the only remaining door. On the right, a drawing illustrates the design of the new infill. The visual character of the original doors is maintained by using the major elements of the original door and transom in the new design.

During the current rehabilitation the entire building was subdivided for office use. For interior circulation, a new irregularly-shaped corridor along the loading bay wall was installed. Rather than filling the existing loading door openings with a new glazing system, the owner proposed removing the existing metal roll-up doors and installing metal rails across the door openings in order to maximize the amount of light and air coming into the corridor. In addition, the owner also wanted to remove the glazing on all windows along the new corridor.

The State Historic Preservation Office advised that the existing roll-up doors and window glazing were important historic features that needed to be preserved. Retention of these features would not limit the use of natural light and ventilation since the roll-up doors could be left open to allow light and air into the corridor, or could be closed for added security or during bad weather. Consequently, the owner followed the SHPO's advice, retained the doors and window glazing. Upon completion the project met the Standards.



View of the building before rehabilitation.



Loading door elevation after rehabilitation.



Interior view after rehabilitation. Existing roll-up doors were retained. Exposed roof structure and concrete floors are still visible.