



Subject: Retaining Distinctive Corridor Features

- Applicable Standards:**
2. Retention of Historic Character
 5. Preservation of Distinctive Features, Finishes and Craftsmanship
 6. Repair/Replacement of Deteriorated or Missing Features

Issue: Retaining glazed transoms in finished interiors is a challenge when undertaking a rehabilitation. Modern building codes often require a level of fire-resistance that cannot be met with existing doors, glazed transoms and framing materials. However, Chapter 10 of the new International Existing Building Code (IEBC) provides flexibility in retaining these features. Doors, transoms, and sidelights are commonly character-defining features in historic office buildings, apartments, and hotels. In the 19th century when there was no mechanical air conditioning, operable transoms allowed air to pass through open windows and out to hallways. In offices, the corridor doors and sometimes internal openings contained glazing, which also transferred natural lighting from the office to the hallway. However, these glazed features did not stop the spread of fire, so modern codes generally require that if fire-separation is needed between rooms and exit corridors that the transoms and glazed panels be sealed and/or backed by fire-rated construction. For most apartment and hotel use, the IEBC requires a one-hour rating between the rooms and the corridor and a 20-minute rating on the doors and a full sprinkler system. In some cases where sprinkler heads are placed on each side of a door opening, glazed transoms may be kept if set in a metal frame with wireglass. Each case requires independent assessment based on occupancy and inherent risks and compliance with local codes, which may differ from the IEBC.

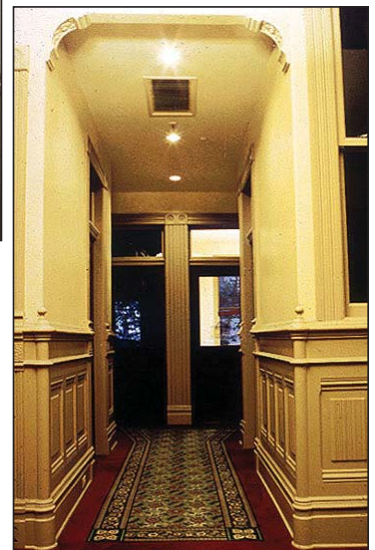
Wholesale removal of historic doors and transoms does not meet the Secretary of the Interior's Standards for Rehabilitation. To meet the Standards, the historic character of hallways must be kept. In some cases, doors and transoms can be sealed and kept; in others, where owners have a single tenant for entire floors, the fire codes may not require rated separations. When code compliance requires modification, owners should investigate options that retain the historic character of a resource as much as possible. The following examples provide suggestions for ways to meet fire codes in rehabilitated buildings without extensive loss of character.

Application 1 (Compatible treatments): A circa 1890's four-story office building was converted into a rental office with first floor commercial space. At the time of rehabilitation, the owner did not have tenants for the upper floors. It was critical to determine if there would be multiple tenants or if each floor could be rented to a single tenant. If multiple tenants were to share a floor, there would have to be a fire separation between tenants and the exit corridor. Because a single tenant leased the building, the open transoms could be restored and made operable. This helped in providing natural cross ventilation on mild days when mechanical cooling was not necessary. It also meant that the doors did not have to be laminated on one side and the historic character of the building was fully preserved.



Left: Before the rehabilitation, the historic office building was in poor condition and many of the historic transoms had been sealed. (Before and after views are of different areas).

Right: During the rehabilitation, the historic transoms were repaired and made operable as there was a single tenant and no requirement for fire-rating between the offices and the corridor. The rehabilitation included a fire-suppression/sprinkler system for the building.



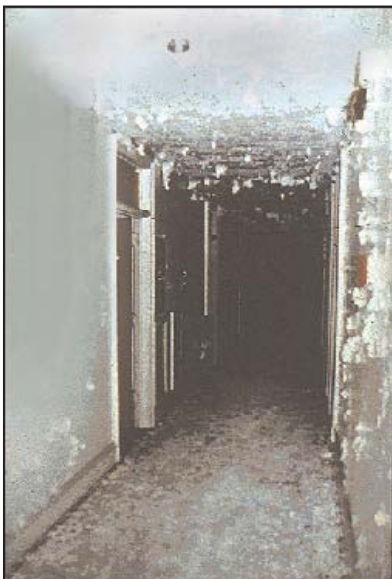
Application 2 (Compatible treatment): A circa 1895 fifteen-story office building was converted into a luxury hotel. The corridors featured expansive amounts of glass in half-glazed doors, glazed transoms and interior sidelight windows. The corridors were also distinguished by mahogany trim around openings and marble wainscoting. Because the building was relatively intact and the glazing was in place, the owner decided that the glass could be retained, painted white on the back side and sealed with two layers of fire-rated drywall. This left the corridor side of the glazing with a clear reflective surface that gives the visual illusion of light transmission. The half-paneled doors were reinforced with drywall on the inside and trimmed out with stained wood trim to reflect the character of the paneled doors. A mirror was placed over the top half of the door in the rooms to reflect natural light from the exterior windows. The building rehabilitation included a full sprinkler system. Retaining the appearance of the reflective glass elements and adding stained trim around the interior surface of the mahogany doors retained the elegant character of this historic building.



The historic corridors in this office building had reflective surfaces that were character-defining, including glazing, marble wainscoting, and high-gloss varnish on the mahogany trim.

The rehabilitated building kept the sense of reflective surfaces in the doors, transoms, and interior glazing on the corridor side by painting the room side of the glazing prior to applying fire-rated drywall to the glazed features. The building was fully sprinkled and the addition of a second fire stair meant that the historic stair could remain in its open configuration, thus retaining an additional character-defining feature of the interior.

Application 3 (Compatible treatment): A circa 1920's twenty-story hotel was converted to affordable housing for seniors. The public spaces were retained for the residents' use and the double-loaded corridors with simple wooden doors and transoms were retained without much modification. The historic hotel rooms were conveniently designed as suites with two rooms connected with a lockable passage door. The new one-bedroom apartments were created from two hotel rooms with a kitchen replacing one of the bathrooms. The corridor doors historically had glazed transoms, but most had been sealed shut or replaced with plywood panels in a previous remodeling. The rehabilitation involved sealing the transoms with two layers of 3/8" drywall and laminating the doorways with one layer of 5/8" drywall on the apartment side. The upgraded doors, transoms and wood trim were painted. The building was also provided with a full fire sprinkler system. The simple painted doors and transoms preserved the historic character of the original hotel building.



Left: The previous owner had blocked the transoms in this hotel with plywood – a treatment that did not meet the fire rating requirements. The building had been vacant for some time and the finishes were in poor condition.

Right: After the rehabilitation, the doors and transoms appeared relatively unchanged from the corridor side. The addition of drywall on the apartment side and a new fire suppression sprinkler system helped the rehabilitation meet code.



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These bulletins are issued to explain preservation project decisions made by the U.S. Department of the Interior. The resulting determinations, based on the [Secretary of the Interior's Standards for Rehabilitation](#), are not necessarily applicable beyond the unique facts and circumstances of each particular case.