CHAPTER

3

REHABILITATION OF HISTORIC HOUSES

This chapter presents design guidelines for the following topics:

CHAPTER

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REHABILITATION OF HISTORIC HOUSES

The following design guidelines are recommended for use by property owners of older buildings when considering rehabilitation projects. These guidelines will be used in formal reviews of proposed changes to historic houses. They can also be used by property owners and their architects, when developing designs for alterations to and strategies for rehabilitation or repair of historic houses and/or their features.

The *California State Historic Building Code* (SHBC) also contains information and design standards for accessibility, door widths, energy conservation, and earthquake stabilization. This code should be consulted for most rehabilitation projects. For more information about the SHBC, follow the State Historical Building Safety Board link on the California Department of General Services, Division of the State Architect (DSA) website. ***www.dsa.dgs.ca.gov/default.htm***

By following the design guidelines presented in this document a homeowner can reasonably expect results similar to the before and after conditions shown here.

Protect and maintain significant stylistic features, such as these windows, dentils, the flower patterns and the cupola.

Treatment of Character-Defining Features

Preserve historic architectural features and details.

Historic features, including original materials, architectural details and window and door openings contribute to the character of a structure and are referred to as character-defining features. They should be preserved when feasible. Continued maintenance is the best preservation method.

3.1 Preserve and maintain significant stylistic and architectural features.

- Porches, turned columns, brackets, exposed rafter tails and jigsaw ornaments, if historic, are examples of architectural features that should not be removed or altered.
- The best preservation procedure is to maintain historic features from the outset so that intervention is not required. Employ preventive measures such as rust removal, caulking, limited paint removal and reapplication of paint. These should not harm the historic materials.
- Maintain character-defining features.
- Do not remove or alter architectural details that are in good condition or that can be repaired.

3.2 Avoid adding elements or details that were not part of the original building.

- For example, details such as decorative millwork or shingles should not be added to a building if they were not an original feature of that structure.

3.3 Protect architectural details from moisture accumulation that may cause damage.

- Regularly check details that have surfaces which can hold moisture for long periods of time.

Deteriorated architectural details should be repaired rather than replaced, whenever possible.

In some cases, original architectural details may be deteriorated. Horizontal surfaces such as chimney caps and window sills are likely to show the most deterioration because they are more exposed to weather. When deterioration occurs, repair the material and any other related problems. It is also important to recognize that all details weather over time and that a scarred finish does not represent an inferior material, but simply reflects the age of the building. Therefore, preserving original materials and features that show signs of wear is preferred to replacing them.

3.4 Repair only those features that are deteriorated.

- Patch, piece-in, splice, consolidate or otherwise upgrade existing materials, using recognized preservation methods.
- Isolated areas of damage may be stabilized or fixed using consolidants. Epoxies and resins may be considered for wood repair.
- Removing damaged features that can be repaired is not appropriate.
- Protect features that are adjacent to the area being worked on.

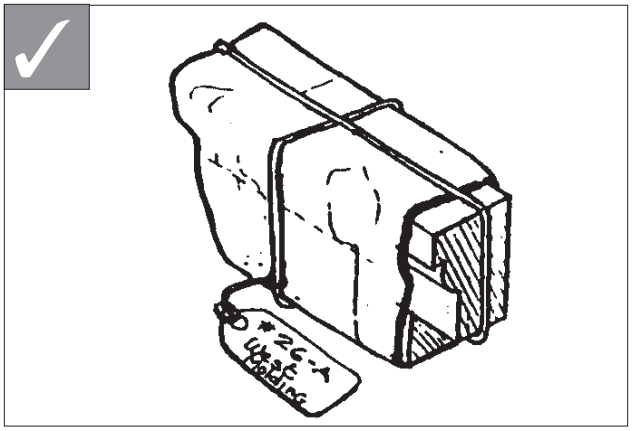
3.5 When disassembly of a historic element is necessary for its restoration, use methods that minimize damage to the original materials.

- When disassembly of a historic feature is required during restoration, document its location so it may be repositioned accurately. Always devise methods of replacing disassembled details in their original configuration.

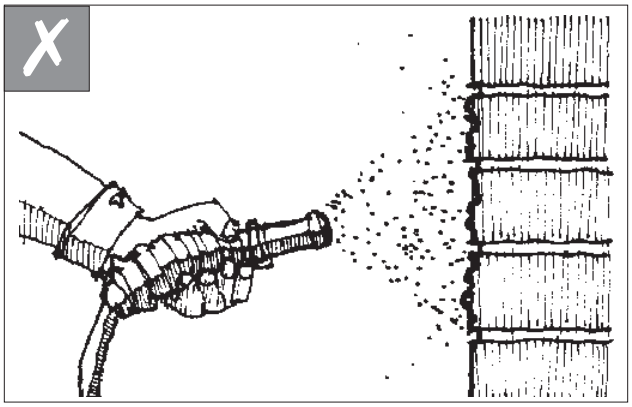
3.6 Use technical procedures for cleaning, refinishing and repairing architectural details that will maintain the original finish.

- Consult with the City of San Jose for techniques that are generally considered appropriate.
- When choosing preservation treatments, use the gentlest means possible that will achieve the desired results.
- Employ treatments such as rust removal, caulking, limited paint removal and reapplication of paint or stain.

Where an architectural feature, such as this porch support and rail, is damaged it should be repaired rather than replaced. Compare this photo with the after condition (bottom photo) where the porch supports have been remounted to the steps and a fresh coat of paint has been applied.



When disassembly of a historic feature is required in a restoration procedure, document its location so that it may be repositioned accurately.



Use approved technical procedures for cleaning, refinishing and repairing historic materials. Harsh cleaning methods, such as sandblasting, can damage the historic materials and change their appearance.

Replace missing original details in kind.

Replace historic features in-kind when restoration is not an option.

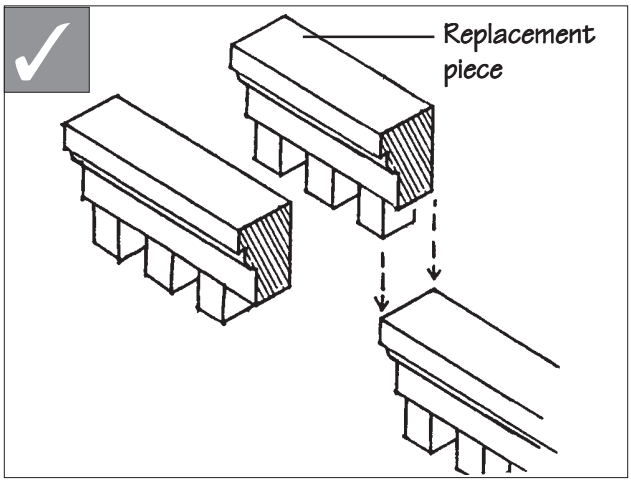
While restoration of the original feature is the preferred alternative, in-kind replacement is also an option. In the event replacement is necessary, the new material should match that being replaced in design, color, texture and other visual qualities. Replacement should occur only if the existing historic material is beyond repair.

3.7 Replacement of missing or deteriorated architectural elements should be accurate.

- The design should be substantiated by physical or pictorial evidence to avoid creating a misrepresentation of the building's history.
- Use the same kind of material as the original when feasible. However, a substitute material may be acceptable if the size, shape, texture and finish conveys the visual appearance of the original.

3.8 When reconstruction of an element is impossible, develop a new design that is a simplified interpretation of it.

- This is appropriate when inadequate information exists to allow for an accurate reconstruction.
- The new element should be similar to comparable features in general size, shape, texture, material and finish.



Where replacement is required, remove only those portions that are deteriorated beyond repair.

Original Materials

Preserve primary historic building materials whenever feasible.

In San Jose, wood lap siding, shingles and stucco were the predominant materials seen on residential buildings. Brick and stone were reserved for foundations and chimneys, as well as some "high-style" homes or institutional buildings. For example, Greystone quarry sandstone was historically seen on foundations and porches in the Naglee Park Conservation Area. Finally, adobe and river rock were also incorporated into some structures. Historic building materials and craftsmanship add textural qualities as well as visual continuity and character to the streetscape and should be preserved.

3.9 Retain and preserve original wall and siding materials.

- Avoid removing materials that are in good condition or that can be repaired in place. Avoid replacing a major portion of an exterior wall that could be repaired. Reconstruction may result in a building that has lost its integrity.
- In many cases, original building materials may not be damaged beyond repair and do not require replacement. Cleaning, repainting or restaining, ensuring proper drainage and keeping the material clean may be all that is necessary.
- All wood surfaces should be painted or stained.

When reconstruction of an element is impossible, develop a new design that is a simplified interpretation of it.

Retain and preserve original wall and siding materials.

Consider removing later covering materials that have not achieved historic significance. Compare the top photo with the one below, after the synthetic siding was removed. Note how the lap dimensions on the original siding are much smaller. (St. Charles, MO)

If stucco covers original siding, then its removal is encouraged.

3.10 Do not cover or obscure original facade materials.

- If original materials are presently covered, consider exposing them once more.
- Covering of original facades not only conceals interesting details, but also interrupts the visual continuity along the street.
- Any material—such as vinyl, aluminum, stucco, imitation brick and even wood—is inappropriate as a covering of historic materials.

3.11 If stucco covers original siding, then its removal is encouraged.

- In an inconspicuous place, sample below the stucco to confirm the existence and possible condition of the historic material. A medium-diameter, bi-metal hole saw will provide a clear sample.
- In some cases, the original wood siding may have been "scarified" or roughened to provide a bonding surface for the stucco. In most cases, this process will have damaged the siding to an extent that would render it non-feasible to repair upon removal of the stucco.
- In other cases, application of stucco directly on wood siding is causing or accelerating moisture damage on building features. Its removal may be warranted for building maintenance.

If stucco covers original siding, then its removal is encouraged.

3.12 Preserve masonry features that define the overall historic character of the building.

- Examples are walls, porch piers and foundations.
- Brick or stone which was not painted historically should not be painted.

3.13 Preserve the original mortar joint and masonry unit size, the tooling and bonding patterns, coatings and color, when feasible.

- Original mortar, in good condition, should be preserved in place.

3.14 Repoint only those mortar joints where there is evidence of moisture problems or when sufficient mortar is missing.

- Duplicate the old mortar in strength, composition, color, texture and joint width and profile.

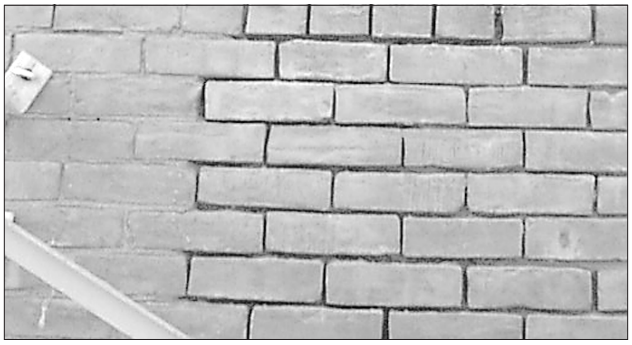
3.15 Maintain protective coatings to retard drying and ultraviolet damage.

- If the building was painted historically, it should remain painted, including all trim. If the building was stained historically, it should remain stained.

3.16 Plan repainting carefully.

- Good surface preparation is key.
- The complete removal of old paint, by the gentlest means possible, should be undertaken only if necessary to the success of the repainting.
- Prepare a good substrate (primer) and use compatible paints or stains. Some latex paints will not bond well to earlier oil-based paints without a primer coat.

Prior to painting, remove damaged or deteriorated paint only to the next intact layer, using the gentlest method possible.



Commence with building cleaning after any repointing has completely cured.

Protect wood siding and other wood surfaces with a painted finish.

Do not remove damaged materials that can be repaired.

Repair wood features by patching or piecing-in new wood elements that match the original.

Original materials that have deteriorated over time should be repaired rather than replaced, whenever possible.

3.17 Repair deteriorated, primary building materials by patching, piecing-in, consolidating or otherwise reinforcing them.

- Avoid the removal of damaged materials that can be repaired.
- Use the gentlest means possible to clean a structure. Perform a test patch to determine that the cleaning method will cause no damage to the material's surface. Many procedures can actually result in accelerated deterioration or damage materials beyond repair.
- Use technical procedures for removal of hazardous materials that preserve, clean, refinish or repair historic materials and finishes.

Replace original building materials in-kind when repair is not an option.

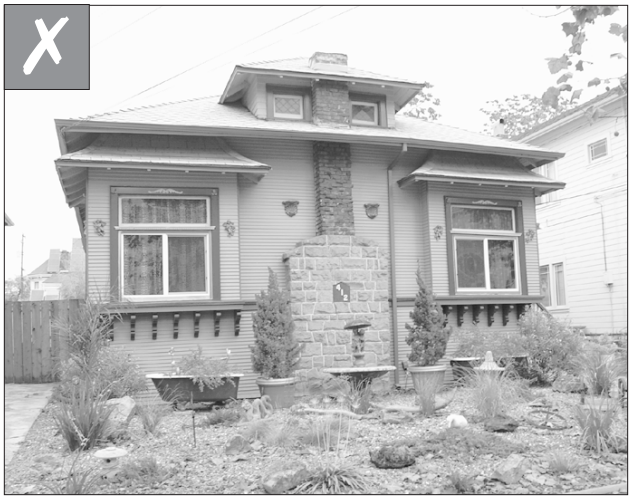
3.18 When replacement of facade material is needed, use materials similar to those employed historically.

- Match the original in composition, scale and finish when replacing exterior siding material. If the original material is wood clapboard, for example, then the replacement material should be wood as well. It should match the original in size, the amount of exposed lap and surface finish.
- Do not use synthetic materials, such as aluminum or vinyl siding or panelized brick, as replacements for primary building materials.
- If substitute materials must be used, they should match the original in appearance as closely as is possible.

When replacement of facade material is needed, use materials similar to those employed historically. The new shingles used below the windows on this structure match those used historically.

Preserve an original porch. Avoid using a porch support that would be substantially smaller than other supports on the porch or than seen historically.

Where a porch must be enclosed, use transparent materials and place them behind the balusters and balustrade to preserve the visual character of the porch.



Do not remove an original porch from the front facade of a building.

Porches

Preserve a porch in its original condition and form.

A porch is one of the most important character-defining elements of a facade. Porches help to provide visual interest to a building, and can influence its perceived scale, protect entrances and pedestrians from rain and provide shade in summer.

3.19 Maintain an original porch, when feasible.

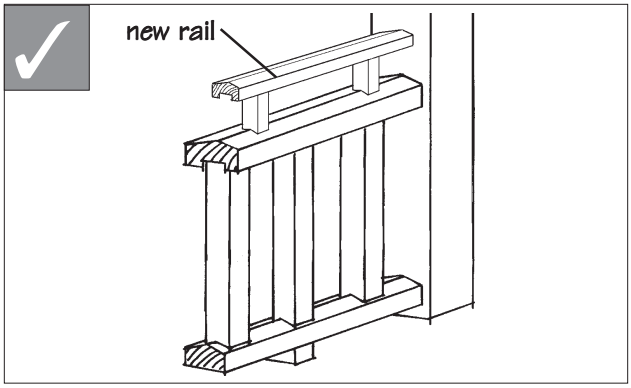
- Maintain the existing location, shape, details and posts of the porch.
- Missing or deteriorated decorative elements should be replaced to match existing elements; e.g., match the original proportions and spacing of balusters when replacing missing ones.
- Avoid using a porch support that would be substantially smaller than other supports on the porch or than that seen historically.
- Do not remove an original porch from a building.

3.20 Enclosing a porch with opaque materials that destroy the openness and transparency of the porch is inappropriate.

- Where a porch must be enclosed, use transparent materials (such as glass) and place them behind the balusters and balustrade to preserve the visual character of the porch.

3.21 Where building codes stipulate that new porch railings lower than 36 inches in height be augmented or corrected to raise their effective height to 36 inches, consider the following:

- Provide a smaller railing above the historic railing to achieve a greater overall railing height.



Consider providing a smaller railing above the historic railing to achieve a greater overall railing height.

Repair a deteriorated porch instead of removing or replacing it.

The preferred treatment for an altered porch is to repair it, rather than replace it altogether. This approach is preferred because the original materials contribute to its historic character. Even when replaced with an exact duplicate, a portion of the historic building fabric is lost; therefore, such treatment should be avoided when feasible.

3.22 Repair those elements of a porch that are deteriorated.

- Removing damaged materials that can be repaired is not appropriate.

3.23 Consider restoring an altered porch back to its original design and configuration.

- If the historic design of the porch is unknown, then base the design of the restoration on other traditional porches on buildings of a similar architectural style.
- If the original porch steps have been replaced with concrete, consider restoring them to their original, wood condition. If termite control is of concern, then consider only making the bottom step concrete and not the entire stair assembly.

While a simple design solution, the use of metal pipes as replacement porch rails is inappropriate.

Repair those elements of a porch that are deteriorated.

Repairing rather than replacing porch elements always is the preferred approach.

Consider restoring an altered porch back to its original design and configuration.

This porch has experienced an inappropriate alteration; wrought iron supports have replaced wood piers. Compare it with its "twin" in the photo below. (Spartanburg, SC)

When reconstructing a porch, use supports that are of adequate size. The design of this porch was based on neighboring buildings of similar character and age. (Spartanburg, SC)

Use materials similar to those seen historically. Wood decking was most common.

Replace a missing porch with one that appears similar to that seen historically.

While replacing an entire porch is discouraged, it may be necessary in some cases. When a porch is to be replaced, the first step is to research the history of the house to determine the appearance and materials of the original porch. The most important aspects of a replacement design are its location, scale and materials. Unless reconstructing a porch from historical documentation, it is not necessary to replicate the details of the original porch or a porch design copied from a similar style house. However, it is important that new details be compatible with the design of the porch and the style of the house.

3.24 When porch replacement is necessary, it should be similar in character, design, scale and materials to those seen traditionally.

- The size of a porch should relate to the overall scale of the primary structure to which it is attached.
- Base the design of a replacement porch on historical documentation if available.
- Where no evidence of the historic porch exists, a new porch may be considered that is similar in character to those found on comparable buildings.

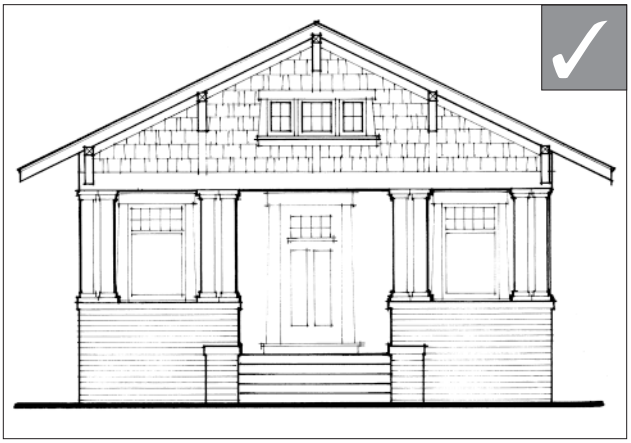
3.25 Porch supports should be of a substantial enough size that the porch does not appear to float above the entry.

- Wood columns are best for most structures in San Jose.
- Brick or stone may be appropriate for some architectural styles.

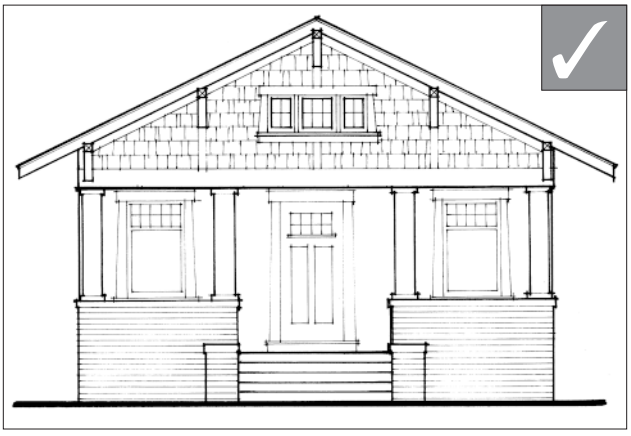
3.26 A porch should use similar materials to that seen historically.

- Use materials similar to those seen historically. Wood decking, steps, balustrades and porch supports (sometimes with brick piers) were most common.
- While matching original materials is preferred, when detailed correctly and painted appropriately, fiberglass columns may be considered.
- Do not replace a wood porch decking and steps with concrete.

Existing Condition: *Craftsman style house with an enclosed porch.*



Preferred Approach, when historical documentation is available: *Craftsman style house with a replacement porch designed similar to that seen historically.*

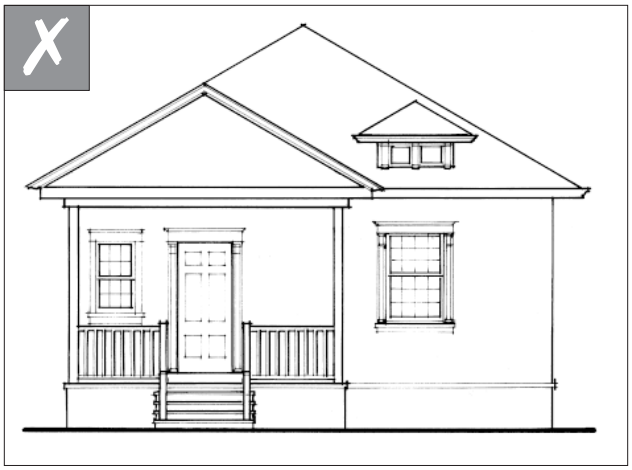


Acceptable Approach, when historical documentation is not available: *Craftsman style house with a simplified interpretation of a traditional porch design.*

Existing Condition: *Italianate style house with the original porch removed.*

Preferred Approach, when historical documentation is available: *Italianate style house with a replacement porch designed similar to that seen historically.*

Acceptable Approach, when historical documentation is not available: *Italianate style house with a simplified interpretation of a traditional porch design.*



Existing Condition: *Neoclassical style house with an altered porch.*

Preferred Approach, when historical documentation is available: *Neoclassical style house with a replacement porch designed similar to that seen historically.*

Acceptable Approach, when historical documentation is not available: *Neoclassical style house with a simplified interpretation of a traditional porch design.*

Existing Condition: *A folk or vernacular style house with the original porch removed.*

Preferred Approach, when historical documentation is available: *A folk or vernacular style house with a replacement porch designed similar to that seen historically.*

Acceptable Approach, when historical documentation is not available: *A folk or vernacular style house with a simplified interpretation of a traditional porch design.*

Windows and Doors

Preserve the size and shape of windows and doors because they significantly affect the character of a structure.

Windows and doors are some of the most important character-defining features of a structure. They give scale to buildings and provide visual interest to the composition of individual facades. These features are inset into relatively deep openings in a building wall or they have surrounding casings and sash components that have substantial dimensions. They also cast shadows that contribute to the character of the building.

3.27 Preserve the functional and decorative features of original windows and doors.

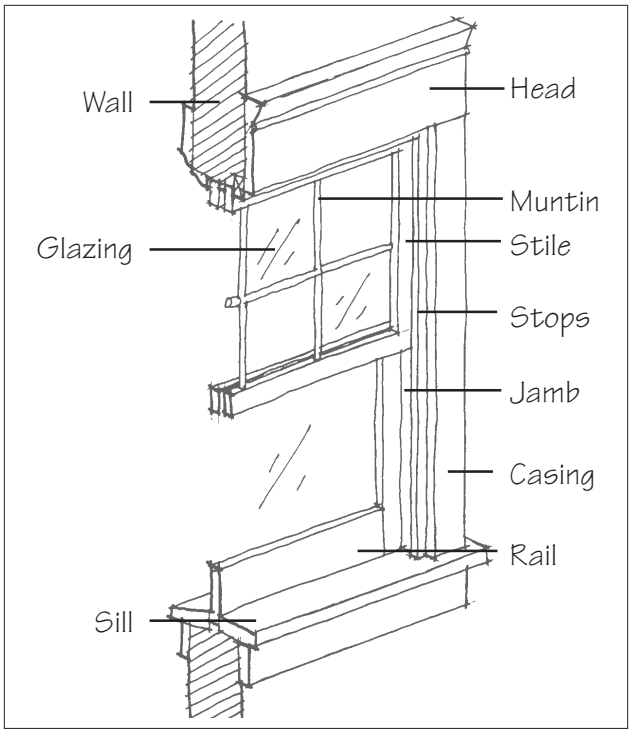
- Repair frames and sashes by patching, splicing or reinforcing.
- Use original windows, doors and their hardware when they can be repaired and reused in place.

3.28 Maintain original window and door proportions.

- Altering the original size and shape is inappropriate.
- Do not close down an original opening to accommodate a smaller window.
- Restoring original openings which have been altered over time is encouraged.

3.29 Maintain the historic window arrangement on a primary facade.

- Large surfaces of glass are inappropriate on historic structures.
- Where large areas of glass are necessary, consider placing them on secondary facades. Also, divide them into several smaller windows that are in scale with those seen traditionally.



Typical double-hung window components.

Preserve the functional and decorative features of original windows and doors.

Do not add new window or door openings on character-defining facades.

Repair a deteriorated window or door instead of replacing it or enclosing the opening altogether.

The replacement of historic windows or doors represents the loss of character-defining historic features, and as such should not be undertaken. First, consider the repair of deteriorated windows or doors instead of their wholesale replacement.

3.30 Repair wooden window and door components by patching, piecing-in, consolidating or otherwise reinforcing the wood.

- Remove built-up paint on both the interior and exterior surfaces.
- Disassemble sash components and repair or stabilize the wood.
- Re-glazing, or replacement of the putty that holds in glass lights, may also be necessary.
- Repair and refinish the frame as needed.
- Replace broken sash cords with new cords or chains.
- Install new weather-stripping.
- Repaint the wooden members of the repaired and reassembled window or door.
- Avoid the removal of damaged wood that can be repaired.

3.31 Do not add new window or door openings on character-defining facades.

- This is especially important on primary facades.
- Greater flexibility in installing new windows or doors may be considered on side and rear elevations.

3.32 If security is a concern, consider using wire glass, tempered glass or light metal security bars.

- These should be installed on the interior of the window or door whenever feasible.
- The use of steel bars is inappropriate.

Replace a window or door that is damaged beyond repair with one similar to that seen historically.

3.33 When window or door replacement is necessary, match the replacement to the original design as closely as possible.

- If the original window is double-hung, then the replacement should also be double-hung. Match the replacement also in the number, dimension and position of glass panes.
- Windows and doors that do not reflect the character of the building are inappropriate.
- While raw, unpainted metal or plastic windows are inappropriate, a substitute material may be considered if it will match those of the original in dimension, profile and finish.
- Preserve the original casing, when feasible.
- Also consider using a salvaged historic door as a replacement.

3.34 A new opening should be similar in location, size and type to those seen traditionally.

- Windows should be simple in shape, arrangement and detail. Unusually shaped windows, such as triangles and trapezoids are inappropriate.

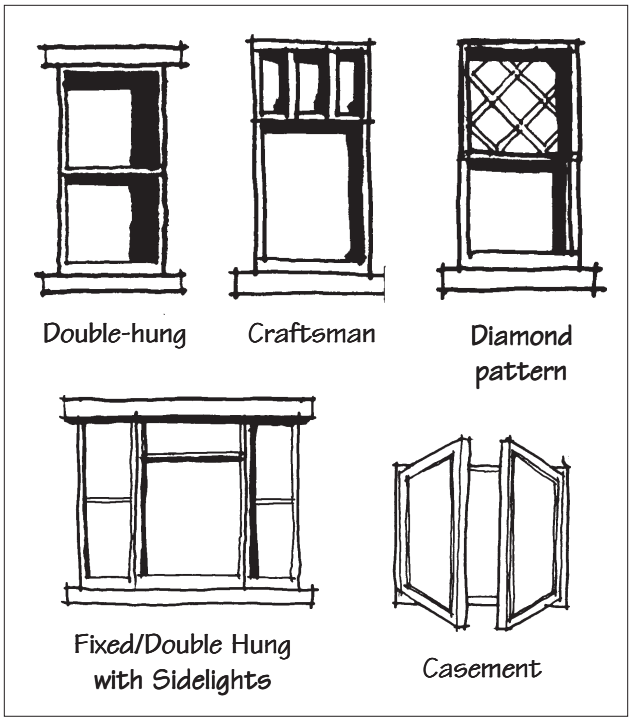
3.35 New windows and doors should be finished with trim elements similar to those used traditionally.

- This trim should have a dimension similar to that used historically.

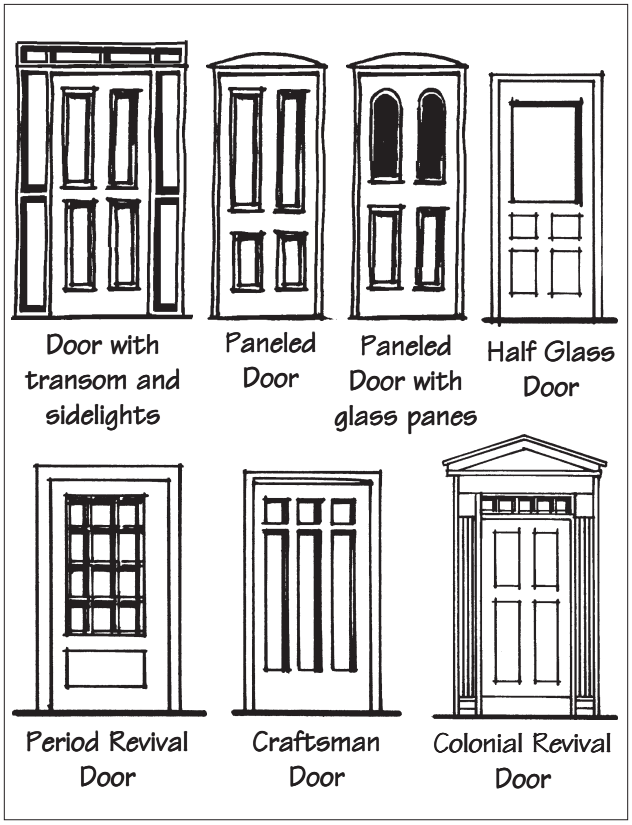
3.36 On a new or replacement window fake wooden muntins may be considered if they create the same affect as true divided lights.

- Often, this means that muntins will need to be used on both the inside and outside of the window.

If window replacement is necessary, then all windows being replaced should be the same style as those seen historically.

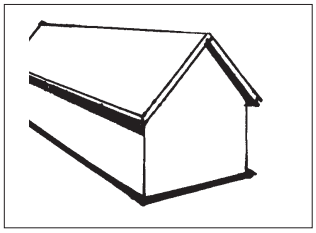


Typical window types on historic buildings in San Jose.

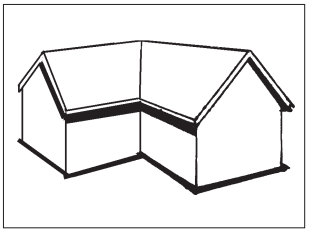


Typical primary door types seen on historic structures.

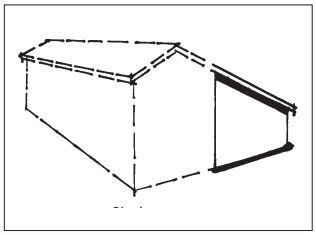
Typical Roof Types Found in San Jose



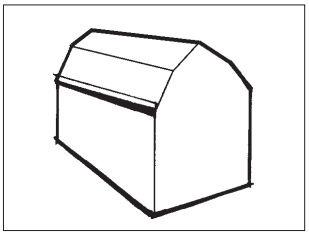
Gabled roof



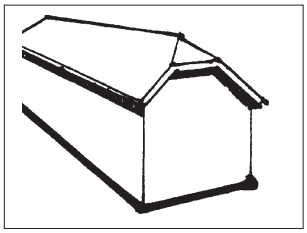
Cross-Gabled roof



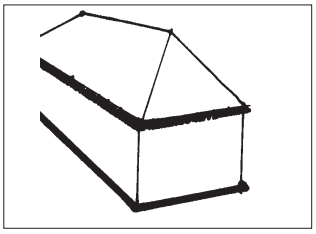
Shed roof



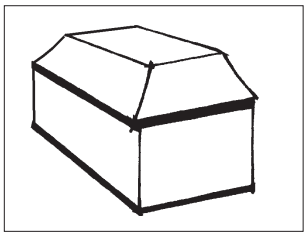
Gambrel roof



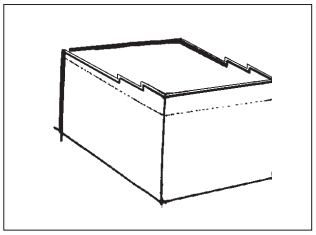
Clipped Gable roof



Hipped roof



Mansard roof



Flat roof

Roofs

Preserve the original form and scale of a roof.

Although the function of a roof is to protect a building from the elements, it also contributes to the overall character of the building. The character of the roof is a major feature for most historic houses. When repeated along the street, the repetition of similar roof forms contributes to a sense of visual continuity for the neighborhood. In each case, the roof pitch, its materials, size and orientation are all distinct features that contribute to the character of a roof. Gabled and hip forms occur most frequently, although shed and flat roofs appear on some building types.

3.37 Preserve the original roof form.

- Most residential roof forms are pitched, such as gable, hipped, mansard and gambrel roofs.
- Avoid altering the angle of a historic roof. Instead, maintain the perceived line and orientation of the roof as seen from the street.
- Retain and repair roof detailing.
- Often repairing a basically sound roof can be much less expensive than a complete replacement. If a new roof is necessary, try to match the color, material and pattern of the old as closely as possible.

Most residential roof forms are pitched, such as gable (pictured), hipped, mansard and gambrel roofs.

3.38 Regular maintenance and cleaning is the best way to keep a roof in good shape.

- Look for breaks, or holes in the roof surface, and check the flashing for open seams.
- Watch for vegetation, such as moss and grass, which indicates accumulated dirt and retained moisture. This can lead to a damaged roof.

3.39 Preserve the original eave depth.

- The shadows created by traditional overhangs contribute to one's perception of the building's historic scale.
- Cutting back roof rafters and soffits or in other ways altering the traditional roof overhang is inappropriate.
- Boxing in exposed roof rafters is inappropriate.

3.40 Minimize the visual impacts of skylights and other rooftop devices as seen from the street.

- The addition of features such as skylights should not be installed in a manner such that they will interrupt the plane of the historic roof. They should be lower than the ridgeline.
- Flat skylights that are flush with the roof plane may be considered on the rear and sides of the roof. Locating a skylight on a front roof plane should be avoided.
- Bubbled or domed skylights are inappropriate.

Look for breaks, or holes in the roof surface, and to check the flashing for open seams.

Composition shingles are an acceptable roofing material. (Napa, CA)

Roof materials are the most susceptible to deterioration, and their replacement may become necessary in time.

Use roof materials in a manner similar to that seen historically.

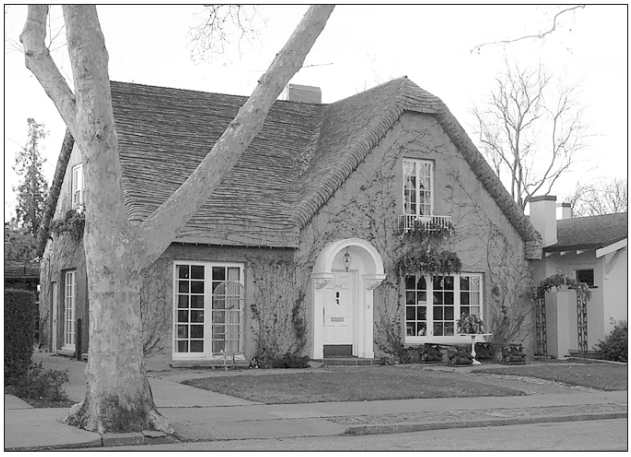
A variety of roof materials exist. Today, the use of composition shingles dominates. Roof materials are major elements in the street scene and contribute to the character of individual building styles. However, they are the most susceptible to deterioration, and their replacement may become necessary in time.

3.41 Preserve original roof materials.

- Avoid removing roof material that is in good condition. Replace it with similar material only when necessary.

3.42 Replacement roof materials for a historic house should convey a scale and texture similar to those used traditionally.

- A roof replacement material should be in keeping with the original architectural style of the structure.
- New roof materials should match the original in scale, color and texture as closely as possible. Keep in mind that the materials used historically may not be available or may not be allowed under local building code.



A roof replacement material should be in keeping with the original architectural style of the structure. Here wood shingles are used to imitate a thatched roof.

Building Relocation

Moving a historic house is discouraged; however, in some instances this may be the only viable option for a building's preservation, and may be considered in limited instances.

A part of a historic house's integrity is derived from its placement on its site and therefore its original position is important. Generally, moving a structure from where it has historically been located will compromise its integrity. However, there may be cases when relocation will not substantially affect the integrity of a property and its rehabilitation can be assured. However, such relocation must be considered very carefully and on a case-by-case basis.

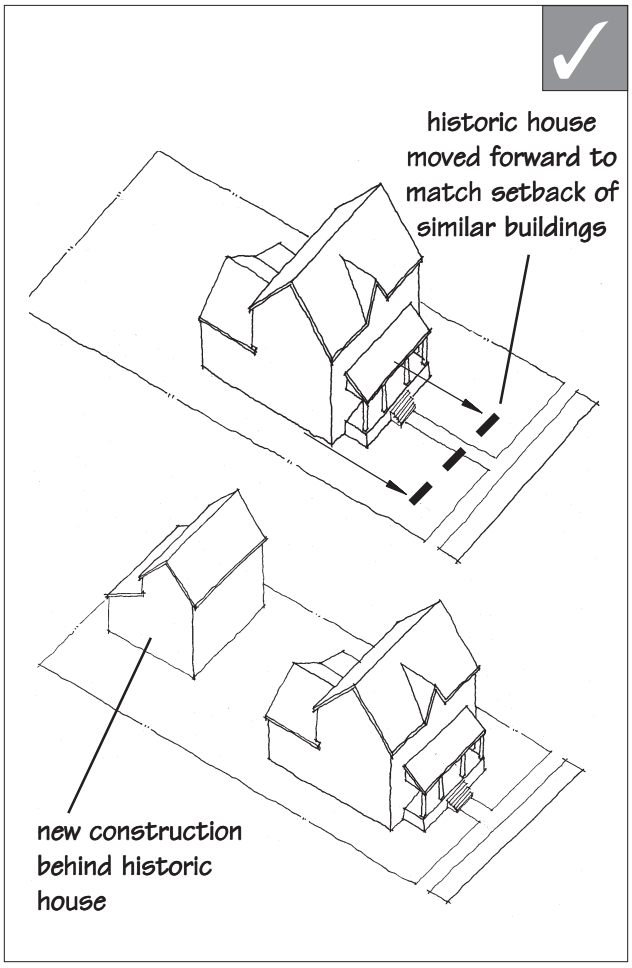
Also, in some limited circumstances, it may be possible to reposition a structure on its original site if doing so will accommodate other compatible improvements that will assure preservation of the historic house. For example, if a historic house is located in the middle or rear of a site, shifting it towards the front property line may accommodate construction of an addition or a new, detached structure. Doing this may better preserve the scale of the original structure, as opposed to erecting a large addition, or worse, demolishing the structure and replacing it with a larger development.

3.43 Proposals to relocate a historic house will be considered on a case-by-case basis.

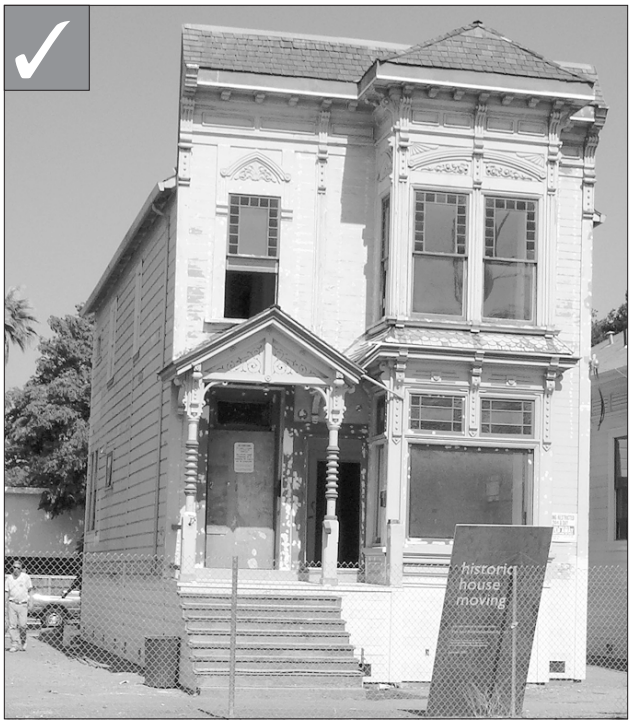
- It must be demonstrated that relocation is the best preservation alternative.
- Before a building is moved, a plan must be in place to secure the structure, to provide a new foundation and to restore the house.
- A building that is to be relocated must be carefully rehabilitated to retain original architectural details and materials. This must occur as the first phase of any relocation project.

3.44 The design of a new structure on the site should be in accordance with the guidelines for new construction contained in *Chapter 6: Infill and Alterations to Non-Historic Houses*.

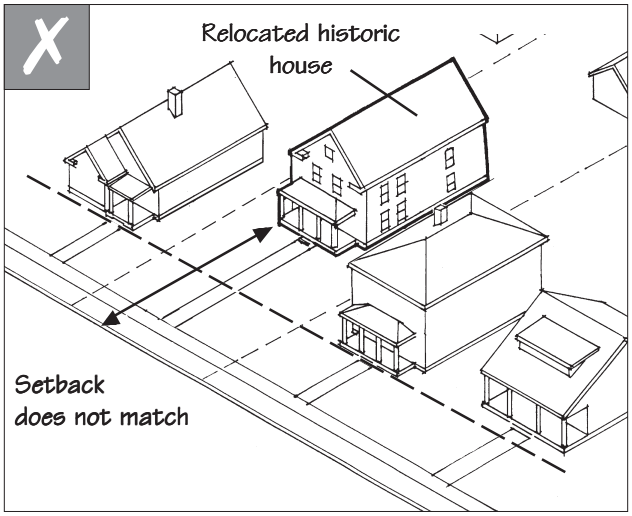
Before a building is moved, a plan must be in place to secure the structure, provide a new foundation and to restore it. (Danville, CA)



If a historic house is located in the rear of a site (top image), shifting it towards the front property line may be possible in order to accommodate construction of a new, detached structure (bottom image). Doing this may better preserve the scale of the original structure, as opposed to demolishing the structure and replacing it with a larger development.



A relocated building should face the same direction and have a relatively similar setback.



In areas where building setbacks are uniform, a relocated historic house should be placed in general alignment with its neighbors.

3.45 Site the structure in a position similar to its historic orientation.

- It should face the same direction and have a relatively similar setback.
- It may not, for example, be moved to the rear of the parcel to accommodate a new building in front of it.

3.46 A new foundation should appear similar in design and materials to the historic foundation.

- A simple, concrete foundation is appropriate in most situations.
- Consider screening a new, exposed concrete foundation. Extending the siding down over it or painting it to match the color of the siding would be appropriate.

3.47 When rebuilding a foundation, locate the structure at its approximate historic elevation above grade.

- Raising the building slightly above its original elevation is acceptable. However, lifting it substantially above the ground level is inappropriate.
- Changing the height of the floor level is discouraged.

Adaptive Use

Respect the historic character of a residential building when adapting it to a commercial use.

Converting a building to a new use that is different from that which its design reflects is considered to be "adaptive use." For example, converting a residential building to an office is adaptive use. A good adaptive use project retains the historic character of the building while accommodating its new function.

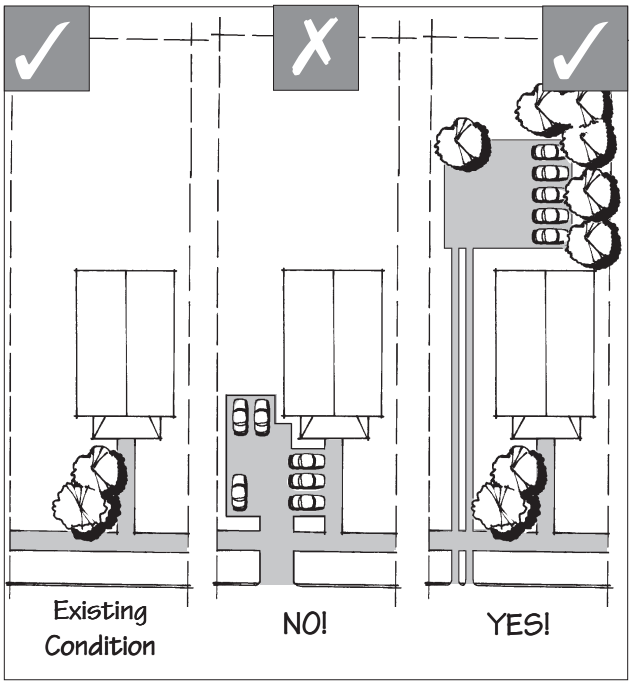
3.48 Seek uses that are compatible with the historic character of the building.

- Building uses that are closely related to the original use are preferred. An example would be the conversion of a residential-type building to an office. This can be accomplished without radical alterations to either the interior or exterior of the structure.
- Avoid altering porches and original windows and doors.

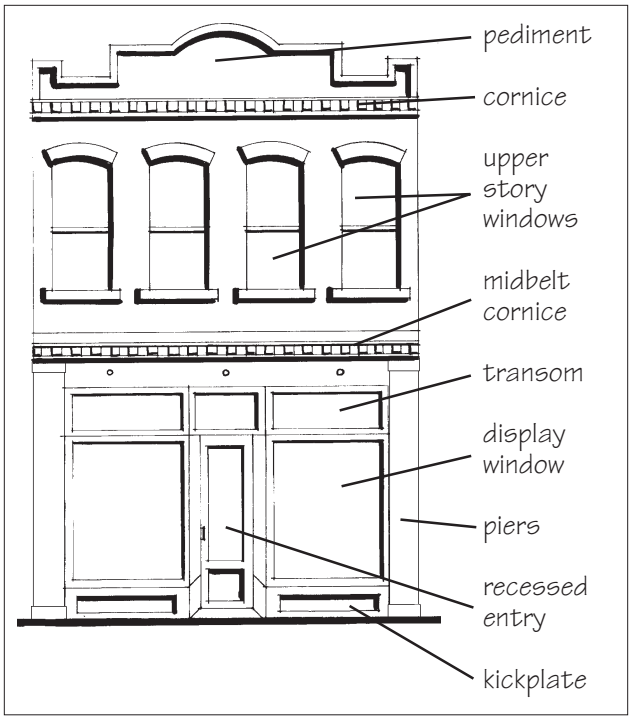
3.49 Minimize the visual impact of parking areas.

- A parking area should be located to the rear of a site.
- Do not use a front yard for parking. Instead, use a long driveway, or alley access, that leads to parking located behind a building.
- Consider using ribbon paving to minimize the amount of hard surface paving.

A successful adaptive use project will maintain the residential characteristics of a building while clearly identifying itself as a business.



Do not use a front yard for parking. Instead, use a long driveway, or alley access, that leads to parking located behind a building.



Typical commercial components.

Corner stores were a strong part of many residential neighborhoods.

Corner Stores

Commercial structures should reflect their traditional role within the neighborhood.

Corner stores were a strong part of many residential neighborhoods. They provided goods and services and local gathering spots all within walking distance for area residents. The original character of these buildings should be retained, even if the original use is no longer viable.

Along these lines, where new corner commercial buildings are anticipated they should be designed to relate to the smaller scale and simpler detailing that the traditional corner stores exhibited.

3.50 Maintain the appearance of commercial corner stores.

- Every reasonable effort should be made to provide a compatible use for the building that requires minimal alterations.

3.51 A new commercial building should reflect the traditional corner store arrangement of the neighborhood.

- Locate a new commercial building at the front of a property.
- Locate parking to the rear of a site. Locating parking in front is not appropriate.

3.52 Maintaining or using traditional storefront elements is preferred.

- Use elements such as display windows, recessed entries, parapets, kickplates and transoms.

3.53 Materials should be applied in a manner similar to those seen traditionally.

- Appropriate materials include wood, brick, stone and concrete.

Seismic Retrofitting

When retrofitting a historic house to improve its ability to withstand seismic events, any negative impacts upon historic features and building materials should be minimized.

Many historic houses were built during times when there was less knowledge of seismic design and building codes were less restrictive. This makes them vulnerable to destruction in earthquakes. However, today there are methods of reducing the risk of earthquake damage. If carefully planned and executed, these retrofitting techniques can upgrade the safety of a building, while at the same time being sensitive to the historic fabric. By upgrading such features as foundations, floors, ceilings, walls, columns and roofs, property owners can improve the resiliency of their historic houses. This will ensure increased personal safety and protection of their investments.

The first step in retrofitting a historic house is to investigate the building and identify its weak points and features that can be strengthened and reinforced.

3.54 Execute seismic retrofitting of a historic house so that it has the least impact on the structure's character.

- Building materials used in seismic retrofitting should be located on the interior and/or blended with other existing architectural features.
- Preserving an ornamental detail by bracing it is preferred over removing it. Brace a masonry chimney when feasible, for example.
- See also: "Controlling Disaster: Earthquake-Hazard Reduction for Historic Buildings." Information Series, National Trust for Historic Preservation, 1785 Massachusetts Avenue, N.W., Washington D.C. 20036. 1992.
- See also: "Strengthening Wood Frame Houses for Earthquake Safety." Bay Area Regional Earthquake Preparedness Project.
- The California State Historic Building Code also provides some flexibility for the seismic retrofitting of a historic structure. Consult with the San Jose building department to find out more.

Horizontal forces of earthquakes can cause damage to a historic structure.