

### 2.28 Repair an altered building facade to its original design.

- If evidence of an original design component is missing, use a simplified interpretation of similar components in the area.

### 2.29 Alternative designs that are contemporary interpretations of traditional industrial buildings may be considered where the historic facade is missing and no evidence of it exists.

- The new design should continue to convey the character of typical warehouses.
- Character-defining features should be appropriately proportioned to one another.

### Additions to Industrial Properties

Two distinct types of additions to historic industrial buildings may be considered. First, a ground-level addition that involves expanding the footprint of a structure may be considered. Such an addition should be to the rear or side of a building. This will have the least impact on the character of a building, but there may only be limited opportunities to do this.

Second, an addition to the roof may be designed that is simple in character and set back from the front of a building. In addition, the materials, window sizes and alignment of trim elements on the addition should be compatible to those of the existing structure.

### 2.30 An addition should be compatible in scale, materials and character with the main building.

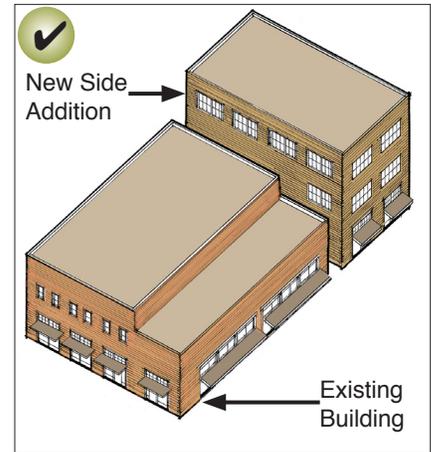
- An addition should relate to the building in mass, scale and form.
- An addition to the front of a building is inappropriate.

### 2.31 An addition should not damage or obscure architecturally important features.

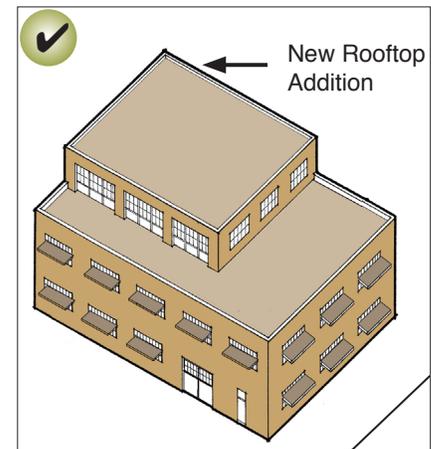
- For example, loss or alteration of a parapet or loading dock should be avoided.

### 2.32 An addition may be made to the roof of a building if it does the following:

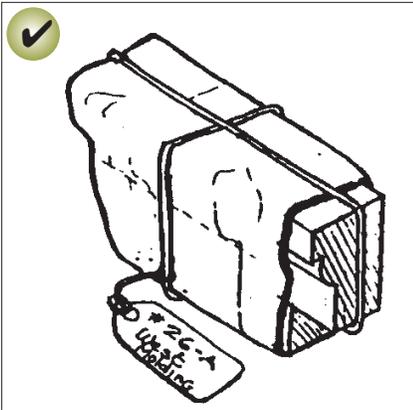
- An addition should be set back from the primary, character-defining facade, to preserve the perception of the historic scale of the building.
- Its design should be modest in character so it will not attract attention from the historic facade.
- The addition should be distinguishable as new, albeit in a subtle way.



*A three-story rear addition is taller than the existing historic building, but has a smaller footprint. This is an appropriate addition since it is compatible with the historic structures and is linked by a subordinate connector (not visible).*



*An addition should be set back from the primary, character-defining facade to preserve the perception of the historic scale of the building.*



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



*Do not remove damaged materials that can be repaired. In this case, loose shingles may be re-secured while missing ones may be replaced.*

## B. Treatment of General Building Features

### Character-Defining Features

Character-defining features contribute to the integrity of a structure. Specific types of features are associated with specific architectural styles. Select an appropriate treatment that will provide for proper preservation of these features. The method that requires the least intervention is preferred.

See the Appendix for information on identifying features for specific styles.

#### 2.33 Preserve significant stylistic and architectural features.

- Storefronts, cornices, porches, turned columns, brackets, exposed rafter tails and jigsaw ornaments are examples of character-defining features that should be preserved.
- Employ preventive maintenance measures such as rust removal, caulking and repainting.
- Do not remove or alter features that are in good condition or that can be repaired.

#### 2.34 Repair deteriorated features.

- 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 a damaged feature that can be repaired is not appropriate.
- Protect features that are adjacent to the area being worked on.

#### 2.35 When disassembly of a historic element is necessary for its repair, use methods that minimize damage to it.

- When removing a historic feature, document its location so it may be repositioned accurately.

**2.36 Use technical procedures for cleaning, refinishing and repairing an architectural detail that will maintain the original finish.**

- 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 appropriate.

**2.37 When reconstructing an element is impossible, develop a new design that is a compatible interpretation of it.**

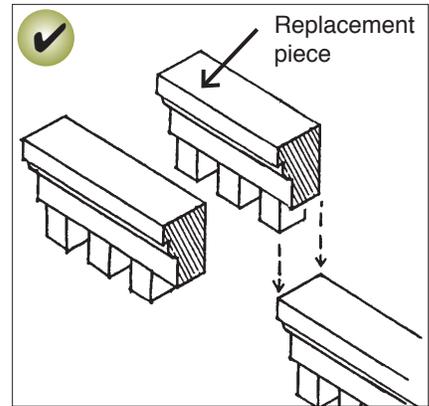
- The new element should be similar to comparable features in general size, shape, texture, material and finish. (See page 14 for an illustration of a simplified cornice design as an example.)

**2.38 Replace an architectural element accurately.**

- 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. Alternative materials are usually more acceptable in locations that are remote from view or direct contact.
- Restore altered window openings on primary facades to their original configuration, when feasible.

**2.39 Avoid adding details that were not part of the original building.**

- For example, decorative millwork should not be added to a building if it was not an original feature. Doing so would convey a false history.



*Where replacement of an element is required, remove only those portions that are deteriorated beyond repair.*



*Replace missing original details in kind.*



*When replacing a missing feature, use the same kind of material as the original.*

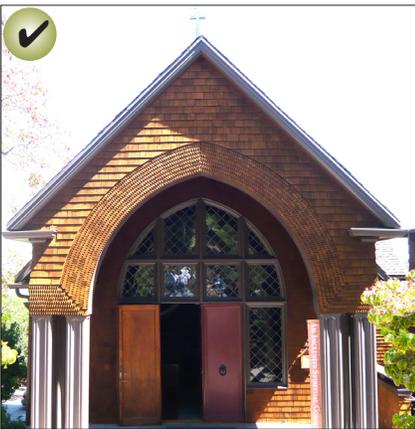


## Materials and Finishes

Primary historic building materials should be preserved in place whenever feasible. If the material is damaged, then limited replacement which matches the original should be considered. These materials should never be covered or subjected to harsh cleaning treatments. Preserving original building materials and limiting replacement to only pieces which are deteriorated beyond repair reduces the demand for, and environmental impacts from, the production of new materials and thus is sound sustainability policy.

Refer to Appendix E of the Guidelines for additional online resources for the treatment of historic properties.

Historic building materials found in Sausalito include wood, stone, brick, metal, stucco, plaster and concrete. These guidelines apply to all such materials:



### 2.40 Preserve original building materials.

- Avoid removing original materials that are in good condition or that can be repaired in place.
- Remove only those materials which are deteriorated, and must be replaced.
- Masonry features that define the overall historic character, such as walls, cornices, pediments, steps and foundations, should be preserved.
- Avoid rebuilding a major portion of exterior masonry walls that could be repaired.



### 2.41 Repair deteriorated primary building materials.

- Repair by patching, piecing-in, consolidating or otherwise reinforcing the material.

### 2.42 When replacing materials on primary surfaces, match the original material in composition, scale and finish.

- 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 in finish.
- Replace only the amount required. If a few boards are damaged beyond repair, then only they should be replaced, not the entire wall.
- If a wood porch or deck floor needs replacement because of significant deterioration, a substitute material may be considered in this case. Recycled materials may be an appropriate replacement material to consider.

*Avoid removing original materials that are in good condition or that can be repaired in place.*

**2.43 Do not use synthetic materials, such as aluminum or vinyl siding or panelized brick, as replacements for primary building materials.**

- Primary building materials, such as wood siding and masonry, should not be replaced with synthetic materials.
- Modular materials should not be used as replacement materials. Synthetic stucco and panelized brick, for example, are inappropriate.
- In some instances, substitute materials may be used for replacing architectural details. If a new material is used, its style and detail should match the historic model. (See page 27.)
- Green building materials, such as those made with renewable and local resources, may be considered for replacement materials where they will not impact the integrity of a building or its key features.

**2.44 Covering original building materials with new materials is inappropriate.**

- Vinyl siding, aluminum siding and new stucco are generally inappropriate on historic buildings. Other imitation materials that are designed to look like wood or masonry siding, fabricated from other materials, are also inappropriate.
- If a property already has a non-historic building material covering the original, it is not appropriate to add another layer of new material, which would further obscure the original.

**2.45 Consider removing later covering materials that have not achieved historic significance.**

- Once the non-historic siding is removed, repair the original, underlying material.
- If a structure has a stucco finish, removing the covering may be difficult, and may not be desirable. Test the stucco to assure that the original material underneath will not be damaged.

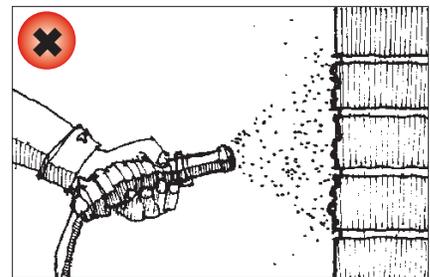
**Cleaning Materials and Methods**

**2.46 Use the gentlest means possible to clean the surface of a structure before repairs or improvements are made.**

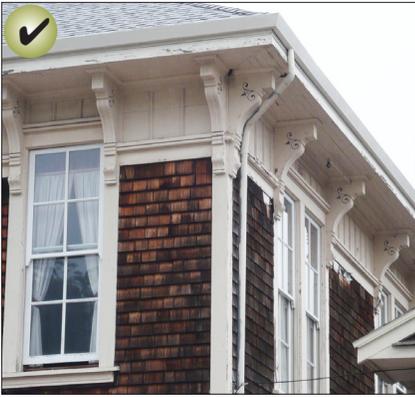
- If cleaning is appropriate, a low pressure water wash is preferred. Chemical cleaning may be considered if a test patch is first reviewed and negative effects are not found.
- Perform a test patch to determine that the cleaning method will cause no damage to the material surface. Many procedures can actually have an unanticipated negative effect upon building materials and result in accelerated deterioration or a loss of character.
- Harsh cleaning methods, such as sandblasting, can damage the historic materials, changing their appearance. Such procedures are inappropriate.



*Consider removing later covering materials that have not achieved historic significance. Once the non-historic siding is removed, repair the original, underlying material.*



*Use approved technical procedures for cleaning, refinishing and repairing historic materials. Harsh cleaning methods, such as sandblasting or grinding are inappropriate.*



## Wood

Wood is a material used historically for exterior siding, trim and ornamental details. Early woodwork should be retained, and, if necessary repaired. Traditional wood framing and cladding will usually be carefully chosen, seasoned and tough. Contemporary replacement wood is unlikely to have the same resilience. When properly maintained, wood has a long lifespan. To preserve external wood, maintain its painted finish. These guidelines apply in addition to the more general guidelines on page 28.

### 2.47 Protect wood features from deterioration.

- Provide proper drainage and ventilation to minimize rot.
- Maintain protective coatings to retard drying and ultraviolet damage. If the building was painted originally, it should remain painted.



## Metal

Metal was used for a variety of applications including columns, roofing, fencing and decorative features. They include cast iron, steel and copper. Traditional metals should be retained and repaired where they exist. These guidelines apply in addition to the more general guidelines on page 28.

### 2.48 Preserve architectural metal features that contribute to the overall historic character of the building.

- Provide proper drainage on metal surfaces to minimize water retention.
- Maintain protective coatings, such as paint, on exposed metals.



*Protect wood features from deterioration.*



*Preserve character-defining wood and metal materials. This includes the deck, railing, fence, siding and window trim on this Ark style waterfront building.*

## Masonry & Concrete

Masonry includes a range of solid construction materials, including stone, brick, terra cotta, stucco and concrete. These exist as building walls, site walls, steps and walkways. These guidelines apply in addition to the more general guidelines on pages 28 and 29 respectively.

### 2.49 Brick or stone that was not painted historically should not be painted.

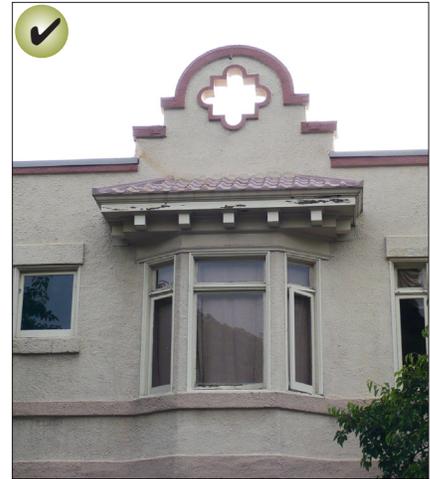
- Masonry naturally has a water-protective layer, or patina, to protect it from the elements. Painting masonry walls can seal in moisture already in the masonry, thereby not allowing it to breathe and causing extensive damage over the years.

### 2.50 Repoint mortar joints where there is evidence of deterioration.

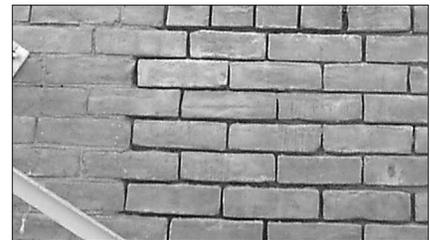
- Duplicate the old mortar in strength, composition, color and texture.
- Avoid using mortar with a high portland cement content, which will be substantially harder than the original.
- Duplicate the mortar joints in width and profile.

### 2.51 Preserve significant concrete features.

- Examples are walls, cornices, pediments, steps, chimneys, loading docks and foundations.
- Avoid rebuilding a major portion of an exterior concrete wall that could be repaired.



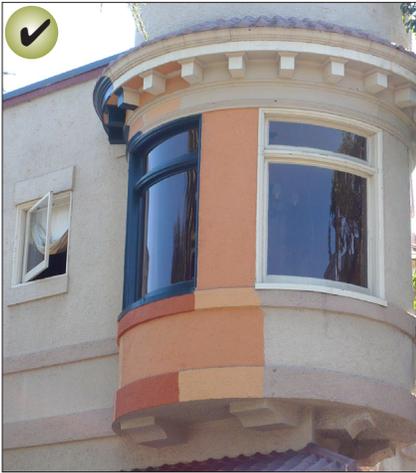
*Preserve concrete features that define the overall historic character of a building.*



*Repoint mortar joints where there is evidence of deterioration.*



*Preserve significant masonry and concrete features. Materials that were not painted historically should not be painted.*



## Paint

Historically, most wood surfaces on the exterior of a building were painted to protect the materials from weathering. Concrete and stucco structures also were sometimes painted.

### 2.52 Plan repainting carefully.

- Always prepare a good substrate. Prior to painting, remove damaged or deteriorated paint only to the next intact layer, using the gentlest means possible.
- Use compatible paints. Some latex paints will not bond well to earlier oil-based paints without a primer coat.

### 2.53 Using the historic color scheme is encouraged.

- If the historic scheme is not known, then an interpretation of schemes on similar historic buildings is appropriate.
- Generally, one muted color is used as a background, which unifies the composition.
- One or two other colors are usually used for accent to highlight details and trim.
- A single color scheme shall be used for the entire exterior so upper and lower floors and subordinate masses of a building are seen as components of a single structure.
- Brilliant luminescent or day-glow colors are not appropriate.

### 2.54 Leave natural masonry unpainted.

- Where the natural color and character of the material exists, such as with brick, it should be left unpainted.
- For the parts of the building that require painting, select colors that will complement those of the natural materials.



*Generally, a historic color scheme includes one muted color as a background to unify the composition, and one or two other colors to highlight details and trim.*



*Plan repainting carefully. Always prepare a good substrate.*

## Windows

The functional and decorative features of a historic window, and its distinct materials and placement should be preserved. In addition, a new window should be in character with the historic building.

### 2.55 Preserve the features of a historic window.

- Features important to the character of a window include its frame, sash, muntins, mullions, glazing, sills, heads, jambs, moldings, operation and groupings of windows. See the following diagrams for an illustration of window features.
- Repair frames and sashes rather than replacing them, whenever possible.

### 2.56 Preserve the position, number and arrangement of historic windows in a building wall.

- On primary facades, enclosing a historic window opening is inappropriate, as is adding a new window opening.

### 2.57 Preserve the historic ratio of window openings to solid wall on a primary facade.

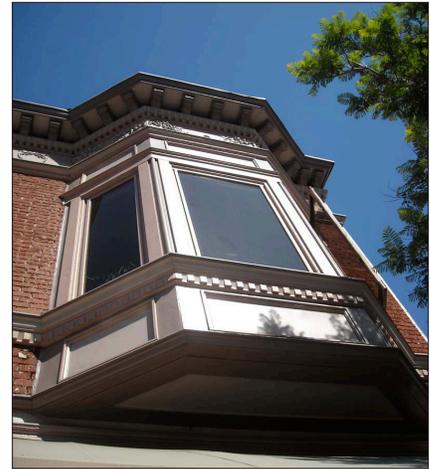
- Significantly increasing the amount of glass on a character-defining facade will negatively affect the integrity of the structure.

### 2.58 Preserve the size and proportion of a historic window opening.

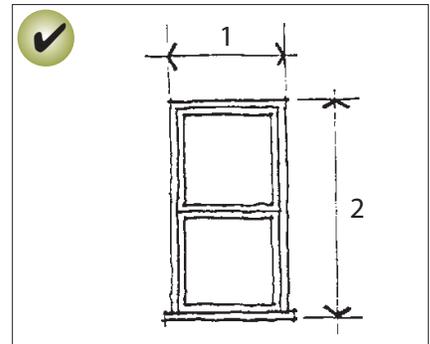
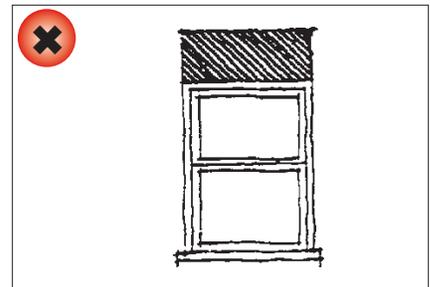
- Reducing an original opening to accommodate a smaller window or increasing it to receive a larger window is inappropriate.

### 2.59 Match a replacement window to the original in its design.

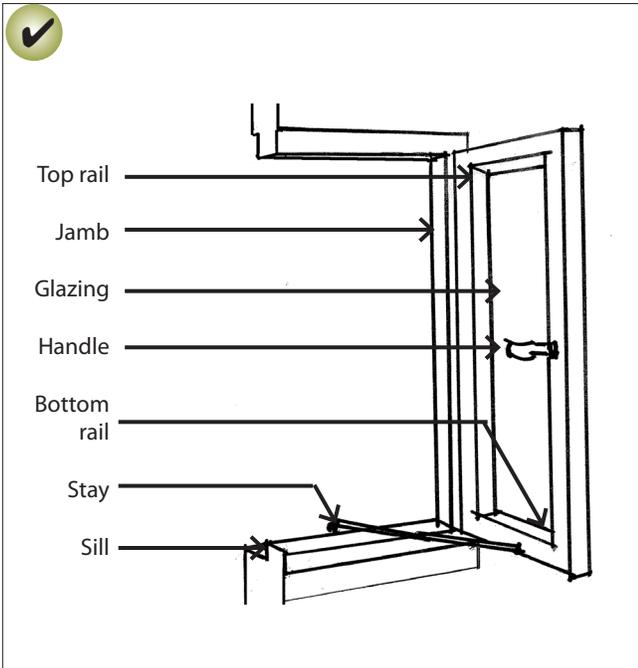
- If the original is double-hung, then the replacement window should also be double-hung or appear to be so. Match the replacement also in the number and position of glass panes.
- Matching the original design is particularly important on primary facades.



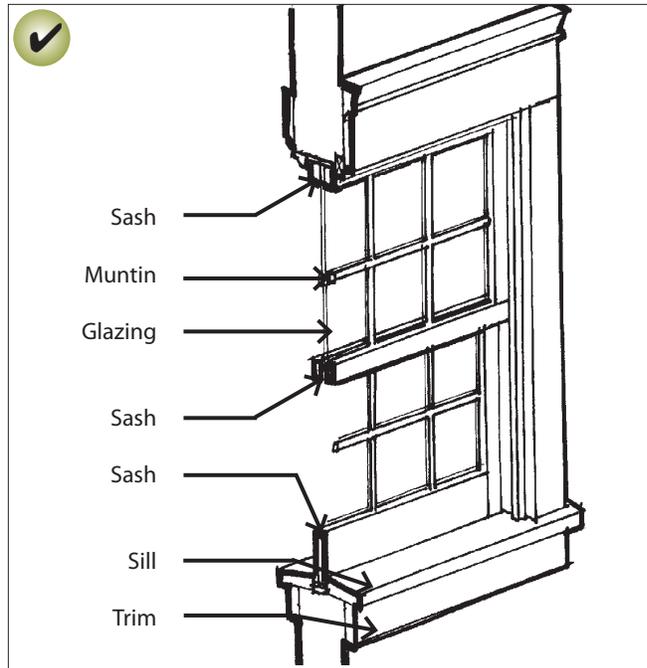
*Preserve the functional and decorative features of a historic window.*



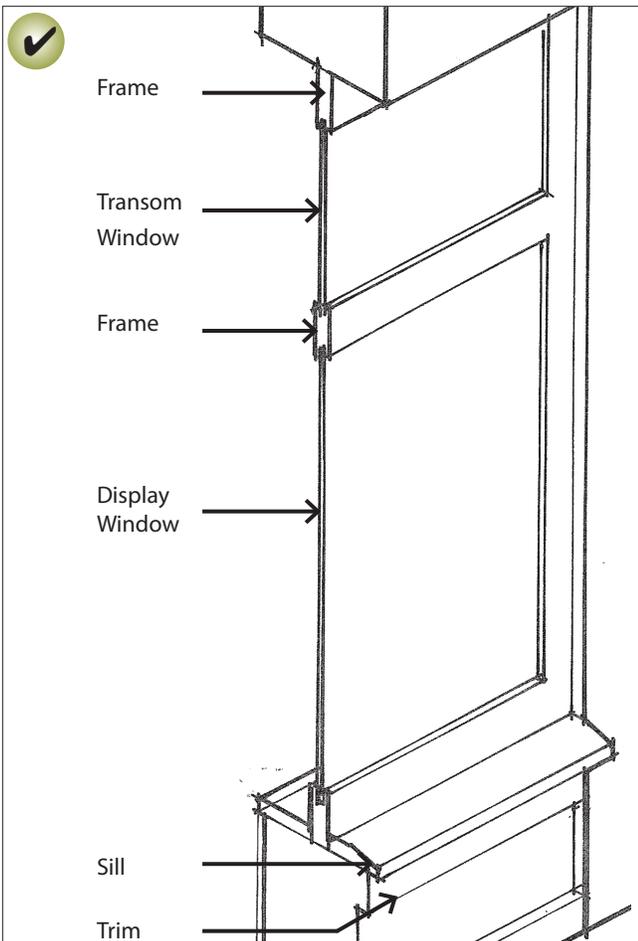
*Preserve the size and proportion of a historic window opening.*



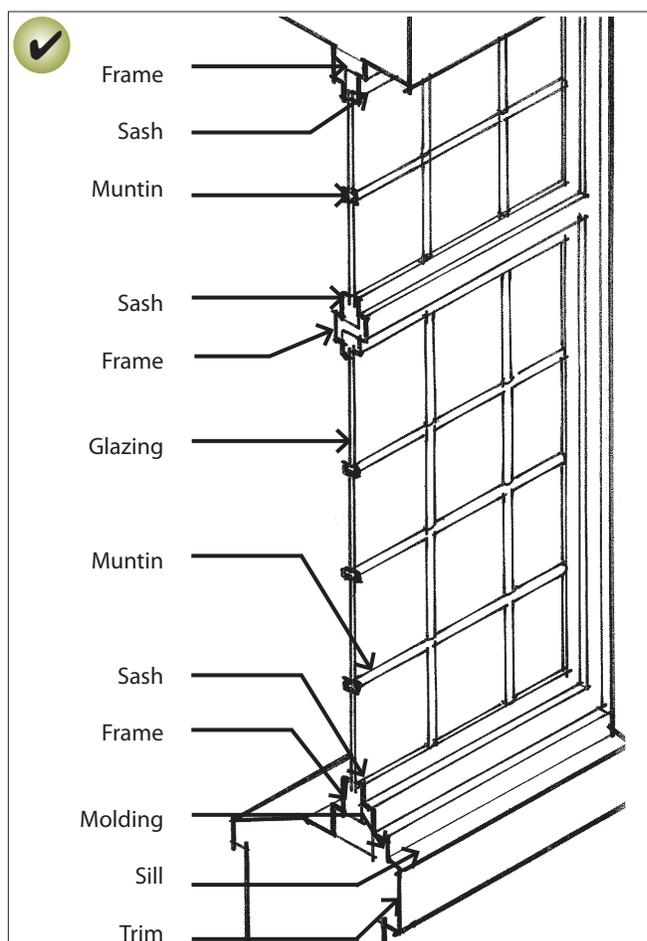
**Casement Window.**  
(Residential)



**Double Hung Window.**  
(Residential, Commercial, Warehouses)



**Storefront Window.** (Commercial)



**Pivot Window.** (Industrial)

**2.60 In a replacement window, use materials that appear similar to the original.**

- Using the same material as the original is preferred, especially on character-defining facades. However, a substitute material may be considered if the appearance of the window components will match those of the original in dimension, profile and finish.
- New glazing should convey the visual appearance of historic glazing. It should be clear. Transparent low-e glass is appropriate. Metallic and reflective finishes are inappropriate.
- Vinyl and unfinished metals are inappropriate window materials.

**2.61 Match, as closely as possible, the profile of the sash and its components to that of the original window.**

- A historic wood window has a complex profile. Within the window's casing, the sash steps back to the plane of the glazing (glass) in several increments. These are important details.

**2.62 Convey as closely as possible the character of historic sash divisions in a new window.**

- Muntins that divide a window into smaller panes of glass should be genuine on key facades and highly visible places.
- Snap-in muntins located on the outside of a window may be used in secondary locations, but should have a similar depth and shadow line to traditional windows.
- Strips of material located between panes of glass to simulate muntins are inappropriate.

## Energy Conservation in Windows

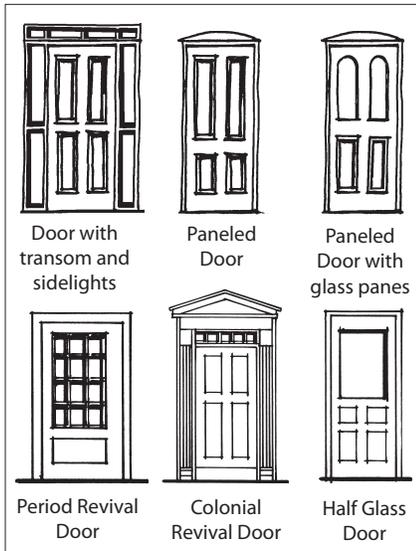
Historic windows can be repaired through reglazing and the patching and splicing of wood elements such as the muntins, frame, sill and casing. Older windows were built with well seasoned wood from stronger, durable, weather-resistant old growth forests. Repair and weatherstripping or insulation of the original elements is more energy efficient and much less expensive, as well as sound preservation practice.

**2.63 Enhance the energy efficiency of an existing historic window, rather than replace it. Use these measures:**

- Add weather stripping around the window frame.
- Install a storm window.
- Install an insulated window shade.



*Consider use of a storm window to enhance the energy efficiency of an existing historic window, rather than replacement.*



Typical primary door types seen on historic residential structures.

## Doors

The character-defining features of a historic door and its distinct materials and placement should be preserved. When a new door is needed, it should be in character with the building. This is especially important on primary facades.

### 2.64 Preserve the decorative and functional features of a primary entrance.

- These include the door, door frame, screen door, threshold, glass panes, paneling, hardware, detailing, transoms and flanking sidelights.
- Avoid changing the position of an original front door.

### 2.65 Maintain the original proportions of a significant door.

- Altering the original size and shape of a significant door is inappropriate.

### 2.66 When a historic door is damaged, repair it and maintain its general historic appearance.

### 2.67 When replacing a door, use materials that appear similar to that of the original.

### 2.68 When replacing a door, use a design that has an appearance similar to the original door, or a door associated with the building style or type.



Preserve the decorative and functional features of a primary entrance.



Maintain the original proportions of a significant door. This includes the transom and sidelights.

## Roofs

The character of a historic roof should be preserved, including its form and materials, whenever feasible.

### 2.69 Preserve the original roof form of a historic structure.

- Avoid altering the angle of a historic roof. Instead, maintain the perceived line and orientation of the roof as seen from the street.

### 2.70 Preserve the original eave depth of a roof.

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

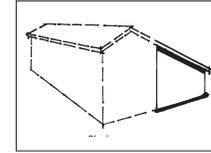
### 2.71 Preserve original roof materials.

- Avoid removing historic roofing material that is in good condition.
- Also preserve decorative elements, including finials, crests and chimneys.
- Retain and repair roof detailing, including gutters and downspouts.

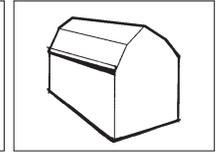
### 2.72 New roof materials should convey a scale and texture similar to those used traditionally.

- When choosing a roof replacement material, the architectural style of the structure should be considered. (See Appendix A.)
- Composition shingle roofs are generally appropriate replacements for wood shingles. They should have a color similar to the original, or of the material in weathered condition.
- Shingles that contain embedded photovoltaic systems are also appropriate in dark colors.

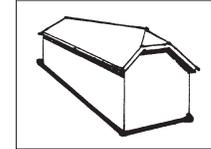
## Typical Residential Roof Types



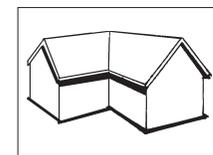
*Shed roof*



*Gambrel roof*

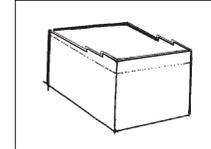


*Clipped Gable roof*



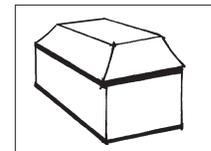
*Cross-Gabled roof*

## Typical Commercial Roof Types

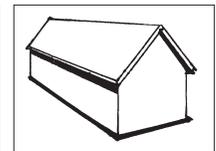


*Commercial Flat roof*

## Roof Types found on both Residential and Commercial Buildings



*Mansard roof*



*Gabled roof*



Preserve the original roof form of a historic structure.

**2.73 If metal roof materials are to be used, they should be applied and detailed in a manner compatible with the historic character.**

- Metal roof materials should have a matte, non-reflective finish.
- Seams should be of a low profile.
- The edges of the roofing material should be finished similar to those seen historically.

**2.74 Avoid using conjectural features on a roof.**

- Adding a widow's walk (an ornate railing around the roof ridge) on a house where there is no evidence one existed creates a false impression of the home's original appearance, and is inappropriate.



A balcony should be in character with the building and simple in design. Light wood and simple metal work are most appropriate.

**2.75 Minimize the visual impacts of skylights and other rooftop devices.**

- A skylight that is flush with the roof plane may be considered on the rear and sides of the roof.
- The addition of features such as skylights should not interrupt the plane of the historic roof, and should be located below the ridgeline.
- Locate electronic data transmission and receiving devices to minimize impacts to the extent feasible.

**Balconies**

Although in most cases one should avoid adding elements or details that were not part of the original building, a balcony addition may be considered. This can enhance the adaptive reuse options for a building. Balconies on the side or rear of a property may be considered when not visible from public vantage points. They should have as little impact on the structure as possible and be a simple design. The addition of a balcony should be reversible.

**2.76 Design a balcony to be in character with the building.**

- Mount a balcony to accentuate character-defining features.
- The balcony should fit within the opening when feasible.
- Use colors that are compatible with the overall color scheme of the building. In most cases dark metal matte finishes are appropriate.

**2.77 A new balcony should be simple in design.**

- The balcony should be mostly transparent. One generally should be able to see through it.
- Simple metal work is most appropriate for commercial and warehouse buildings.
- Simple wood designs are appropriate for residential buildings.
- Heavy timber and plastics are inappropriate.

## C. Special Considerations

### Adaptive Reuse

Preserving rather than replacing a building can significantly reduce our environmental impact. Preserving and adapting a historic structure is sound environmental policy in all respects. In basic terms, re-using a building preserves the energy and resources invested in its construction, and removes the need for producing new construction materials.

The best use for a historic structure is that for which the building was designed or a closely related use. Every effort should be made to provide a compatible use for the building, one that will require minimal alteration to the building and its site. An example of an appropriate adaptive use is converting a residence into a Bed and Breakfast. This can be accomplished without major alteration of the original architecture.

#### **2.78 Seek uses that are compatible with the historic character of the building.**

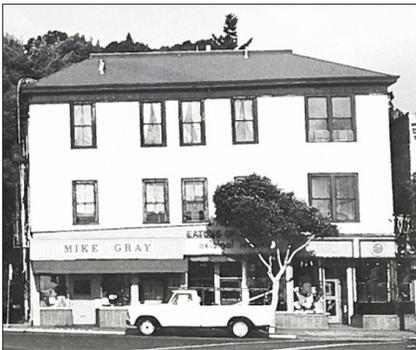
- The use should not adversely affect the historic integrity of the building.
- The use should not alter character-defining features of the structure.
- The use may help to interpret how the building was used historically.

#### **2.79 A new use that requires minimal change to the existing structure is preferred.**

- When a more significant change in use is necessary to keep the building in active service, those uses that require the least alteration to significant elements are preferred.
- It may be that in order to adapt a building to the proposed new use, such radical alteration to its significant elements would be required that the entire concept is inappropriate. In most cases, however, designs can be developed that respect the historic integrity of the building while also accommodating new functions.



*When considering an adaptive use project, seek uses that are compatible with the historic character of the building.*



Upper photo: Original condition; note single, double-hung windows at right edge of facade.

Middle photo: Early in its history an additional double-hung window has been added. By the time of this photograph they had taken on significance.

Lower photo: In a later alteration, a decorative header has been added over the windows. While in character, it does not have historic significance.

## Historic Additions

Some early additions may have taken on historic significance of their own. One constructed in a manner compatible with the original building and associated with the period of significance may merit preservation in its own right. These additions should be evaluated.

In contrast, more recent additions that detract from the character of the building should be considered for modification or removal.

### 2.80 Preserve an older addition that has achieved historic significance in its own right.

- For example, a porch or a kitchen wing may have been added to the original building early in its history. Such an addition is usually similar in character to the original building in terms of materials, finishes and design. (See page 16, 18 & 25 for guidelines related to the construction of new additions.)

## Secondary Structures

Preserving historic secondary structures is important. This includes carports, sheds, garages and carriage houses. They are traditionally subordinate in scale and character to the primary structures. These features should be retained.

### 2.81 Preserve an existing secondary structure when feasible.

- Retain original materials when feasible.
- Maintain the subordinate character of the structure.

## Energy Conservation and Generation

Typically early buildings have inherent energy-efficient advantages. The structure, form and materials should be sensitively improved in energy efficiency terms so that the building authenticity, integrity and character are preserved. Improvements to enhance energy efficiency and energy collection should be planned to retain and complement the original building, site and its context. Retention, maintenance and repair of the original building fabric should prevail over replacement. Weatherizing improvements, such as weather-stripping and storm windows, will be a more energy efficient, cost effective, and historically sensitive approach. The siting of energy collection equipment, such as solar panels, should not detract from the character of building, site or context.



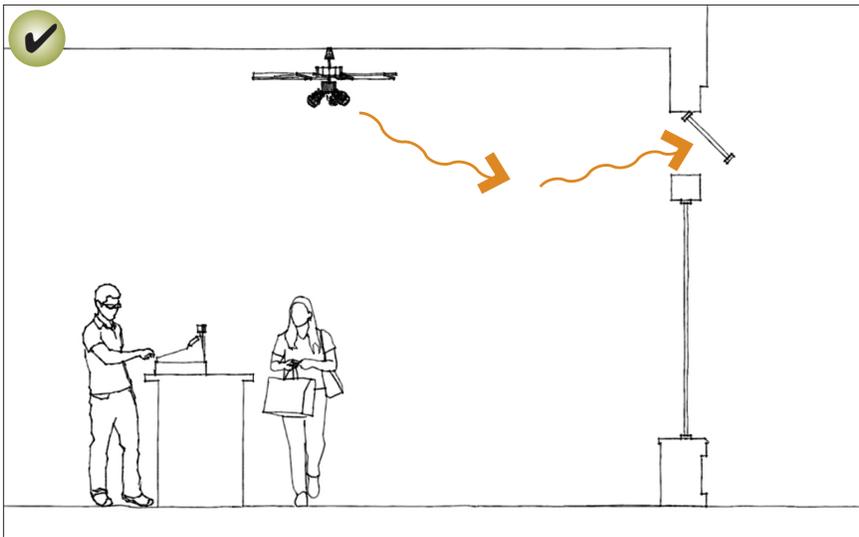
*Solar angles and predominant wind patterns shift throughout the year, affecting the desired climate control strategy. Research micro-climate conditions at the beginning of any project.*

## Building Orientation

While many historic structures and sites have desirable southern orientation, others may not. It is important to understand the orientation of your site and the structures on it prior to beginning an energy conservation or generation project.

## Seasonal Design Strategies

Solar angles and predominant wind patterns shift throughout the year, affecting the desired climate control strategy. The desired amount of natural lighting and ventilation can be managed based on these seasonal differences. Research micro-climate conditions at the beginning of any project.



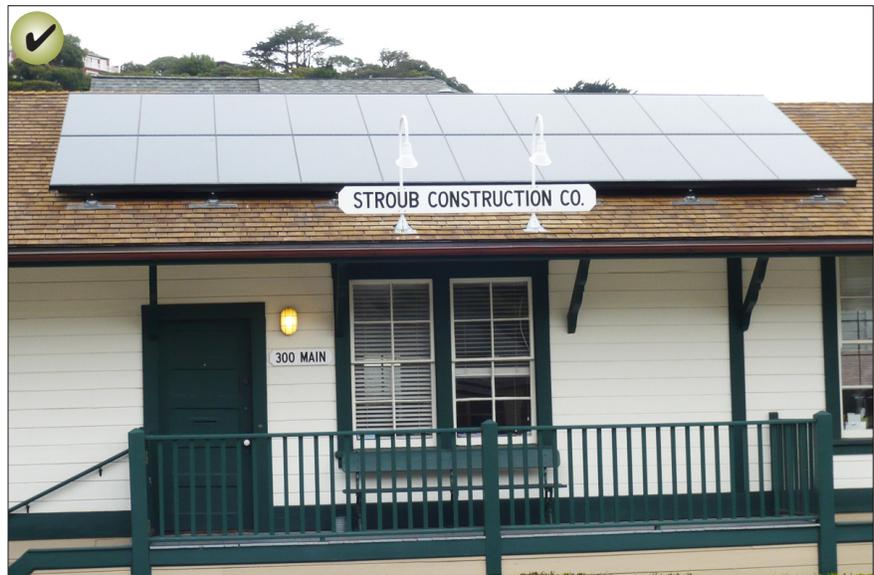
*Maintaining operable transom windows on a historic commercial building both preserves its historic character as well as its inherent energy-efficient advantages.*

## Solar Panels

Solar panels should be located to minimize their effect on the character of a historic building. Roof mounted solar panels should be flush with the roof profile and designed and positioned to have a minimal effect on the character of the structure. Placement should only be considered on secondary and rear facades.

### 2.82 Minimize the visual impacts of solar panels on the character of the property.

- Locate panels in visually subordinate positions.
- Where possible on secondary facades, set panels back from the front facade.
- Use the least invasive methods feasible to attach solar collectors to a historic roof. Design them to be reversible as well.
- Installing integrated photovoltaic systems should be planned where they will not hinder the ability to interpret the historic significance of the structure. For example, solar shingles on a rear or secondary facade would be appropriate.
- Another option is to install solar panels on secondary structures.
- When mounted on the ground, collectors should be located in rear or side yards. Exposed hardware, frames and piping should have a matte finish, and be consistent with the color scheme of the primary structure.



*Attach solar collectors to a historic roof in a minimally invasive and reversible manner.*

# Locating Solar Panels on Historic Buildings



**Existing Building:  
Front Facing Gable**

**Features**

- Gable facing street, side is south facing

**Preferred Location**



**Features**

- Panels set back from the front facade
- Panels are flush with the roof

**When should I use this approach?**

- The building is highly significant
- The context has many intact historic buildings
- Roof is highly visible

**Acceptable Location**



**Features**

- Panels set back from eave, but closer to the front
- Panels are flush with the roof

**When should I use this approach?**

- The building is a contributor to a district
- Site constraints restrict solar access
- Roof is not highly visible

## Energy Efficiency Strategy

Follow these basic steps when considering alterations for energy efficiency:

### Step 1.

Maintain building components in sound condition.

### Step 2.

Maximize inherent sustainable qualities.

### Step 3.

Design landscapes to conserve resources.

### Step 4.

Add new technologies sensitively.

## Energy Efficiency in Building Design

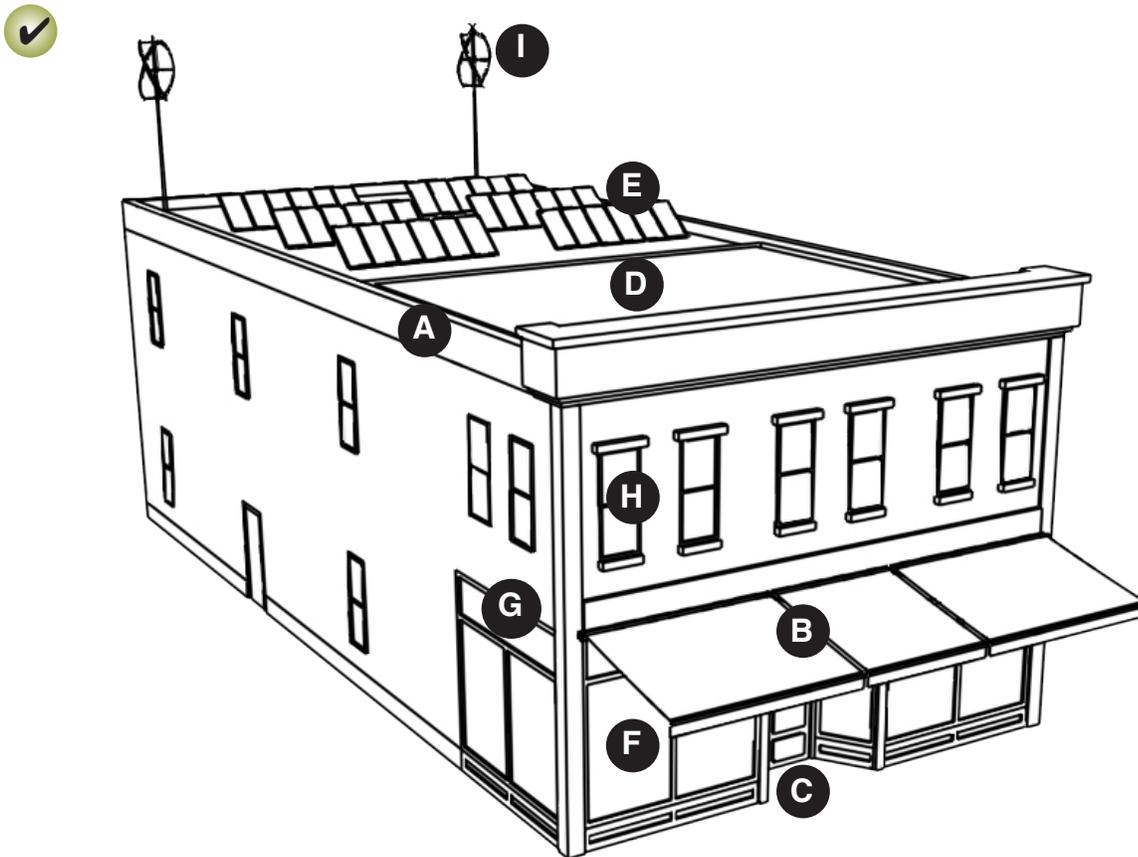
### 2.83 Retain and enhance the energy efficiency of the original building.

- Install additional insulation in an attic, basement or crawlspace. Additional insulation is a simple and typically noninvasive, method to make a significant difference in a building's energy efficiency.
- Retain, repair or restore original shutters, awnings and porches as appropriate. Operable features such as these will increase the range of conditions in which a building is comfortable without mechanical climate controls.
- Retain and repair original roof material.
- Install draft stoppers in a chimney. Open chimney dampeners can increase energy costs by up to 30 percent.

### 2.84 Enhance the energy efficiency of original windows and doors.

- Retain the original window frame and glazing.
- Repair original windows and doors rather than replace.
- Safeguard, retain and reuse early glass, taking special care in putty replacement.
- Maintain the glazing compound regularly. Remove old putty with care.
- Weatherstrip original framework.
- Place storm windows internally to avoid the impact upon external appearance.
- Use storm window inserts designed to match the original frame if placed externally.
- Double pane glazing may be acceptable where original glazing has been lost and the frame can support the weight and profile. A storm window is still more efficient however.

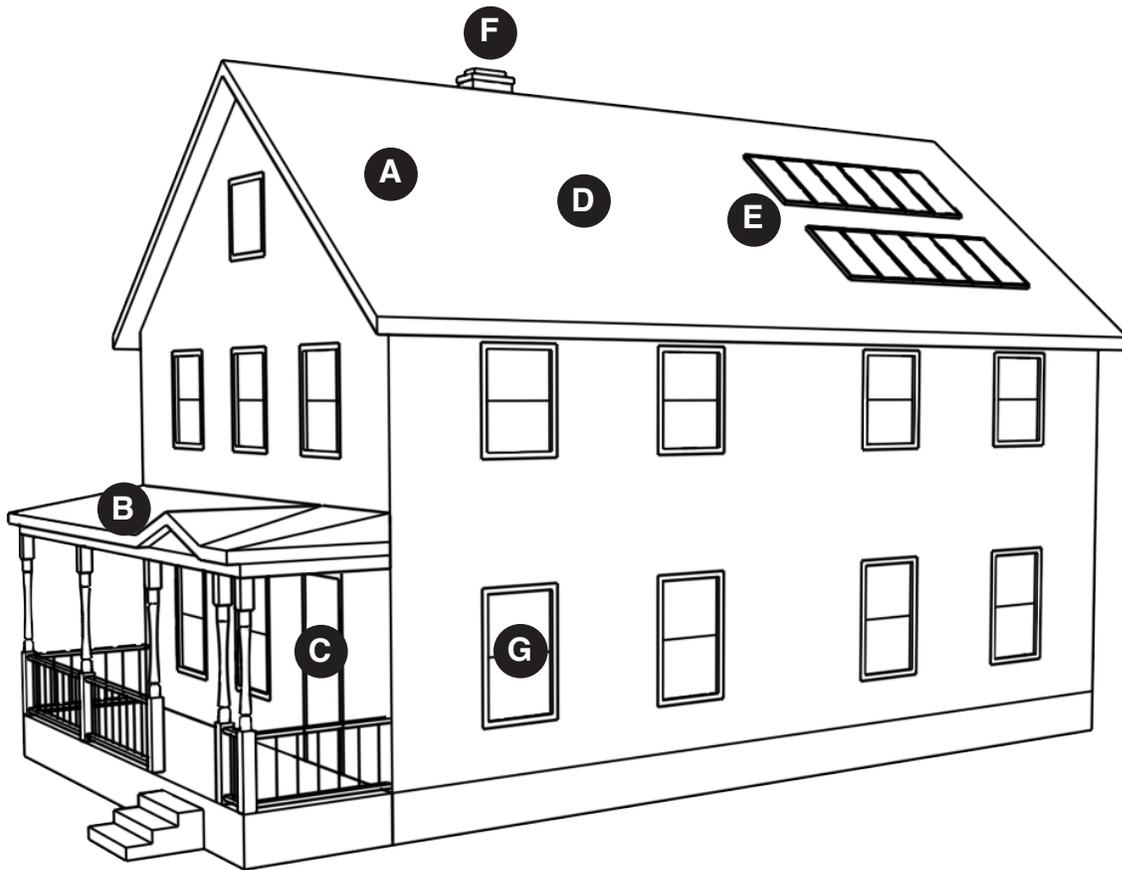
## Commercial Building Energy Efficiency Diagram



- |   |  |  |
|---|--|--|
| <p><b>A Attic</b></p> <ul style="list-style-type: none"> <li>• Insulate internally</li> </ul>   | <p><b>D Roof Material</b></p> <ul style="list-style-type: none"> <li>• Retain &amp; repair</li> </ul>  | <p><b>G Transoms</b></p> <ul style="list-style-type: none"> <li>• Retain operable transom to circulate air</li> </ul>  |
| <p><b>B Awnings</b></p> <ul style="list-style-type: none"> <li>• Use operable awnings to control solar access and heat gain</li> </ul>                              | <p><b>E Solar Panels</b></p> <ul style="list-style-type: none"> <li>• Set back from primary facade to minimize visibility from street</li> </ul> | <p><b>H Windows</b></p> <ul style="list-style-type: none"> <li>• Maintain original windows</li> <li>• Weatherstrip and caulk</li> <li>• Add storm windows (preferably interior)</li> </ul> |
| <p><b>C Doors</b></p> <ul style="list-style-type: none"> <li>• Maintain original doors</li> <li>• Weatherstrip</li> <li>• Consider interior airlock area</li> </ul> | <p><b>F Storefront Windows</b></p> <ul style="list-style-type: none"> <li>• Maintain original windows</li> <li>• Weatherstrip</li> </ul>         | <p><b>I Wind Turbines</b></p> <ul style="list-style-type: none"> <li>• Set back from primary facade to minimize visibility from street</li> </ul>  |

This diagram summarizes a general strategy for energy conservation on a traditional commercial building. These measures can enhance energy efficiency while retaining the integrity of the historic structure.

## Residential Building Energy Efficiency Diagram



### **A** Attic

- Insulate internally

### **B** Awnings & Porches

- Restore porches and awnings

### **C** Doors

- Maintain original doors
- Weatherstrip

### **D** Roof Material

- Retain & repair

### **E** Solar Panels

- Set back from primary facade to minimize visibility from street

### **F** Chimney

- Install draft stopper

### **G** Windows

- Repair & retain original or early windows
- Retain original glass
- Enhance thermal & acoustic efficiency with storm windows (preferably interior)
- Weatherstrip

This diagram summarizes a general strategy for energy conservation on a traditional residential building. These measures can enhance energy efficiency while retaining the integrity of the historic structure.

## **Energy Efficiency in Site Design**

Site designs, including landscapes and structures, should take advantage of microclimatic conditions for energy conservation. Consider solar and wind exposure in all seasons, as well as topography, in siting decisions.

### **2.85 Design landscapes and site features to promote energy efficiency.**

- Position new landscape features to take advantage of the shade and wind break effects for the building.
- Locate deciduous trees and vegetation to provide for summer shading and allow winter solar access.
- Locate vegetation to provide wind protection in the stormy seasons while not blocking cooling breezes in warmer months (do not block wind collectors).
- Use efficient site lighting to minimize the amount of fixtures needed.
- Shield fixtures to minimize light spill onto adjacent properties and into the night sky.

### **2.86 Provide natural stormwater drainage systems on site.**

- Utilize natural storm water drainage and retention basins.
- Line drainage and detention areas with porous materials to promote percolation into the soil.
- Use porous paving materials to the maximum extent feasible. Where impervious paving materials must be used, drain to natural drainage and retention basins on site.



## Landscape Features

Historic landscape features, including stone walls and walkways, stairways, small parks, plantings and fences are important character-defining features of many properties in Sausalito as well as in the public realm. Work that alters the historic character of these elements should be avoided.

The use of appropriate site materials is a key factor in preserving the historic character and the relationship between the buildings and their setting, and therefore new landscape designs should be designed to be compatible with their context.

### **2.87 Preserve historically significant landscape designs.**

- Preserve masonry walls and walkways, stairways, small parks, plantings, fences and gates.
- Avoid removing mature, character-defining plantings unless they are severely damaged, aged or diseased beyond preservation.

### **2.88 Replace only those portions of historic landscapes that are deteriorated beyond repair.**

- Any replacement materials should match the original in general character.

### **2.89 A replacement fence or gate should be in character with those seen historically.**

- A fence is usually low to the ground (less than 40”) and “transparent” in nature.
- Contemporary interpretations of traditional fences and gates may be considered when compatible with the historic context.

### **2.90 A replacement wall should be in character with those seen historically.**

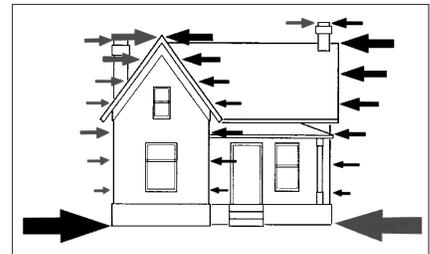
- Contemporary interpretations of masonry walls should be compatible with the historic context.



*Preserve historic landscape features.*

### 2.91 Plan new landscape elements to minimize potentially negative impacts on nearby buildings.

- Avoid new site features which have the potential to damage or obscure a historic structure.
- Select plant and tree species according to their mature size to allow for the long-term impact of mature growth.
- Avoid placing climbing plants too close to a building.
- Avoid locating plant materials which obscure significant and character-defining architectural features.



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

### 2.92 Select new plant materials to be compatible in character with historic features on site.

- These should also meet City guidance and/or regulations for water conservation, use of indigenous species and noninvasive characteristics.

## Seismic Retrofitting

Many of Sausalito's historic buildings and structures were constructed when there was less knowledge of seismic design and building codes were less restrictive, making them vulnerable to damage in earthquakes. However, today there are methods of reducing the risk of earthquake damage. If carefully planned and executed, retrofitting techniques can upgrade the safety of a structure while at the same time being sensitive to its historic fabric. The first step in retrofitting a building is to examine the structure and identify its weak points and features that can be strengthened and reinforced. By upgrading such features as foundations, floors, ceilings, walls, columns and roofs, property owners can improve the resiliency of their historic buildings. When retrofitting a historic structure to improve its ability to withstand seismic events, any negative impacts upon historic features and building materials should be minimized.

### 2.93 Execute seismic retrofitting of a historic structure 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.
- See Appendix E for more information on earthquake retrofit programs.

## Accessibility

Owners of historic properties should comply to the fullest extent possible to Americans with Disabilities Act (ADA) provisions, while also preserving the integrity of the character-defining features of their buildings and sites.

### **2.94 Generally, creating an accessibility solution that is independent from the historic building and does not alter its historic characteristics is encouraged.**

- Identify the historic building's character-defining spaces, features and finishes so that accessibility code-required work will not result in their damage or loss.
- Alterations to historic properties that are designed to improve access for persons with disabilities should create minimal negative effect on the historic character or materials.
- Provide barrier-free access that promotes independence for the disabled to the highest degree practicable, while preserving significant historic features.

# 3 Treatment of Special Features

## Chapter 3 Application

<b>Downtown Historic District</b>	
<b>Work on a Contributing Property</b>	See Note A
<b>Restore a Non-Contributing Property</b>	See Note A
<b>Work on a Non-Contributing Property</b>	See Note A
<b>Construct a New Building in the Historic Overlay District</b>	See Note A
<b>Work on a Local Register Property</b>	See Note A
<b>Work on a California Register Property</b>	See Note A
<b>Work on a National Register Property</b>	See Note A
<b>Work on Arks in the Residential Arks Zoning District</b>	See Note A
<b>Site Improvements</b>	✓
<b>Other</b>	✓

### Notes

A. Guidelines in Chapter 3 may apply to some projects in this category.

This chapter provides guidelines for special features such as views, topography, public amenity space, parking and other site features. These guidelines apply to both historic properties and new construction in the Downtown Historic District.

## A. Views

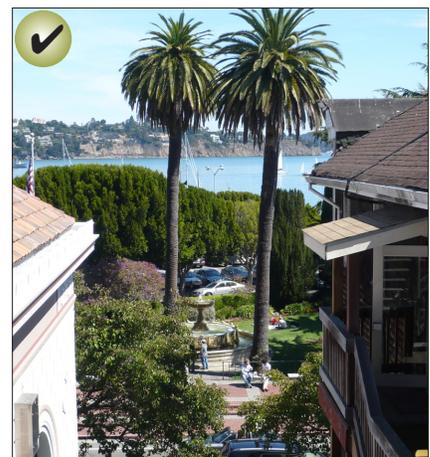
Views to historic landmarks are important and should be retained for both public and private lands.

### 3.1 Minimize the impacts to primary views of historic landmarks from existing private structures and public ways when feasible.

- Enhance primary public view corridors. Consider keeping a new structure low or using a compact footprint to maintain views.
- Locate improvements to minimize impacts to primary views of historic landmarks.
- Minor loss of a private view of a historic landmark can be mitigated if necessary to protect a property right.
- Also see the Preservation of Trees & Views regulations in Chapter 11.12 of the Municipal Code.

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Views to historic landmarks are important and should be retained for both public and private lands.



*Terrace or step a retaining wall.*

## **B. Connectivity**

Convenient pedestrian access should be provided among properties and along the waterfront to achieve a sense of being an integrated community and to reduce automobile impacts.

### **3.2 Retain the historic network of streets, stairs, pathways and trails.**

- The network of streets and alleys should be retained as public circulation space and for maximum public access.
- Preserve alignments and widths.
- Streets and alleys should not be enclosed or closed to public access.

### **3.3 Retain and respect public lanes, paths and stairs in any development.**

- Maintain widths, alignment and access.
- Provide additional public access where appropriate.

## **C. Topography**

Site work should be planned to protect the assets of the existing topography.

### **3.4 Minimize cut and fill on a site.**

- Divide large grade changes into a series of benches and terraces, where feasible.

### **3.5 Design a building foundation to conform to the existing topography.**

- Step the foundation of a building to follow site contours, when feasible.
- If stepping the foundation is not possible, disguise the cut with building placement and/or building walls, and provide a landscape buffer system at the top of cut.
- Avoid extensive areas of “cantilevered” floors, especially above a cut area.

### **3.6 When a retaining wall must be used, it should blend with the natural features of the site.**

- Terrace or step a retaining wall.
- Use rock that is cut to convey the mass and scale of traditional rock walls.
- Unfinished grey concrete and concrete block are inappropriate in the Downtown Historic District.