

CHAPTER 7

DESIGN GUIDELINES FOR HISTORIC BUILDING MATERIALS



Introduction

This chapter presents design guidelines for the treatment of historic building materials. The design guidelines are organized into relevant design topics, which each include individual policies and design guidelines. These often indicate how they apply to particular building rating categories, either “Essential,” “Contributing” or “Supporting” structures.

Wood siding and brick were the typical primary building materials used throughout Truckee. Wood siding occurred in a variety of forms but painted, horizontal lap siding was the most popular for residences as well as many other building types. Brick was primarily used for commercial structures. In each case, the distinct properties of the building material, including the scale of the material unit, its texture and finish, contribute to the historic character of a building and should be preserved.

The best way to preserve historic building materials is through well-planned maintenance. Wood surfaces should be protected with a good application of paint. In some cases, however, historic building materials may be deteriorated. When this occurs, repairing the material, rather than replacing it, is preferred. Frequently, damaged materials can be patched or consolidated using special bonding agents.

Topics Discussed in this Chapter:

1. Wood and Siding
2. Paint
3. Masonry
4. Metals
5. Replacement Building Materials
6. Roof materials

In other situations, some portion of the material may be beyond repair. In such cases, consider replacement in-kind. The new material should match the original in appearance. If wood siding had been used historically, for example, the replacement also should be wood.

It is important that the extent of replacement materials be minimized, because the original materials contribute to the authenticity of the property as an historic resource. Even when the replacement material exactly matches that of the original, the integrity of an historic building is to some extent compromised when extensive amounts are removed. This is because the original material exhibits a record of the labor and craftsmanship of an earlier time and this is lost when it is replaced.

References:

- ☞ Also consult *The Secretary of the Interior's Standards for the Rehabilitation of Historic Buildings*.
- ☞ Also consult *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Illustrated Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings*.

It is also important to recognize that all materials weather over time and that a scarred finish does not represent an inferior material, but simply reflects the age of the building. Preserving original materials that show signs of wear is therefore preferred to their replacement.

Rather than replace original siding, some property owners consider covering it. Aluminum and vinyl are examples that are often discussed. However, using any material, either synthetic or conventional, to cover historic materials is inappropriate. Doing so would obscure the original character and change the dimensions of walls, which are particularly noticeable around door and window openings. The extra layer may in fact cause or hide further decay.



Wood shingles were used frequently in Truckee.



Preserve original building materials and, when they must be replaced, do so in-kind.

1. Wood and Siding

To preserve wood, maintain its painted finish. While lap siding is most prevalent on some buildings, log or board and batten may have been used. This also should be preserved in a manner that conveys its historic character.

A. Preserve original siding.

- 1) Avoid removing siding that is in good condition or that can be repaired in place.
- 2) Remove only siding which is deteriorated and must be replaced.
- 3) If portions of wood siding must be replaced, be sure to match the style and lap dimensions of the original.

B. Protect wood features from deterioration.

- 1) Provide proper drainage and ventilation to minimize decay.
- 2) Maintain protective coatings to retard drying and ultraviolet damage. If the building was painted historically, it should remain painted, including all trim.

C. Repair wood features by patching, piecing-in, consolidating or otherwise reinforcing the wood.

- 1) Avoid the removal of damaged wood that can be repaired.



Protect wood features from deterioration. If the building was painted historically, it should remain painted, including all trim.

D. Use technical procedures that preserve, clean, or repair historic materials and finishes.

- 1) Abrasive methods such as sandblasting are not appropriate.
- 2) A firm experienced in the cleaning of historic buildings should be hired to advise on the best, lowest impact method of cleaning.
- 3) Note that early paint layers may be lead-based, in which case, special procedures are required for its treatment.



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

E. Remove later covering materials that have not achieved historic significance.

- 1) If original materials are presently covered, consider exposing them. For example, asphalt siding that covers original wood siding should be removed. Some covering materials may contain hazardous materials such as asbestos. It is appropriate to remove these materials. Confer with the Town Chief Building Official for more information concerning the removal of these materials.
- 2) Once the non-historic siding is removed, repair the original, underlying material.

F. Original building materials should not be covered.

- 1) Vinyl, aluminum, imitation brick, stucco or other composite materials are inappropriate on historic structures.
- 2) 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.



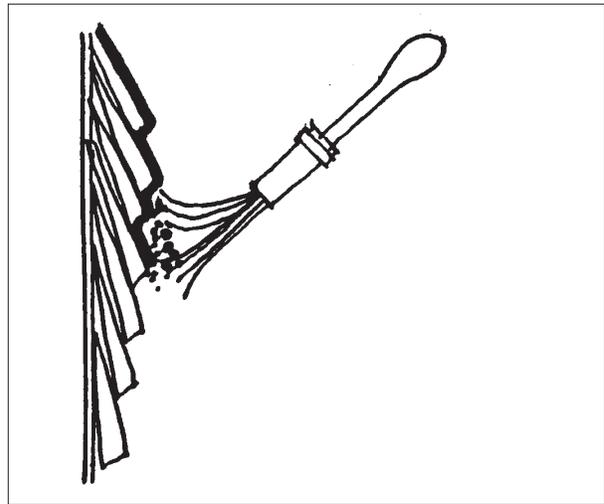
Remove later covering materials that have not achieved historic significance.

2. Paint

Buildings that were clad with lap siding were usually painted to protect the wood. Only sheds or other accessory buildings were left unfinished. The range of paint colors available historically was limited. Using traditional color schemes is preferred.

A. Always prepare a good substrate for painting.

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



Always prepare a good substrate when repainting an historic structure.

B. Use compatible paints.

- 1) Some latex paints will not bond well to earlier oil-based paints without a primer coat.

C. Using the historic color scheme is encouraged.

- 1) If an historic scheme is not to be used, then consider the following:
 - Generally, one muted color is used as a background, which unifies the composition.
 - One or two colors are usually used for accent, to highlight details and trim.
 - A single color scheme should be used for the entire exterior so upper and lower floors and subordinate wings of buildings are seen as components of a single structure.



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

3. Masonry

Some buildings in the commercial area were built of brick or stone. This masonry construction should be preserved in its original condition.

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

- 1) Examples are walls, cornices, pediments, steps, chimneys and foundations.
- 2) Avoid rebuilding a major portion of an exterior masonry wall that could be repaired. Reconstruction may result in a loss of integrity.

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

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



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

C. Re-point mortar joints where there is evidence of deterioration.

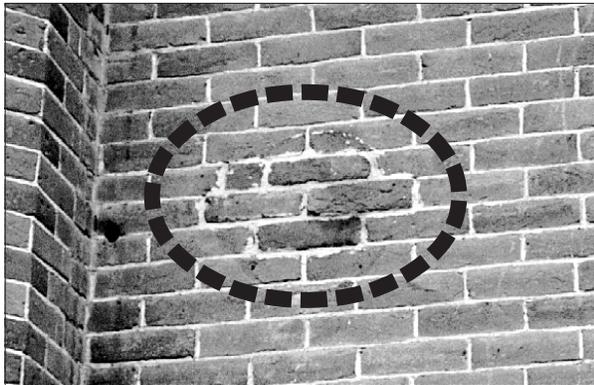
- 1) Duplicate the old mortar in strength, composition, color, texture, joint width and profile.
- 2) Mortar joints should be cleared with hand tools. Using electric saws and hammers to remove mortar can seriously damage the adjacent brick or stone.
- 3) Avoid using mortar with a high Portland cement content, because it will be substantially harder than the brick and does not allow for expansion and contraction.

D. Brick or stone that was not painted historically should not be painted.

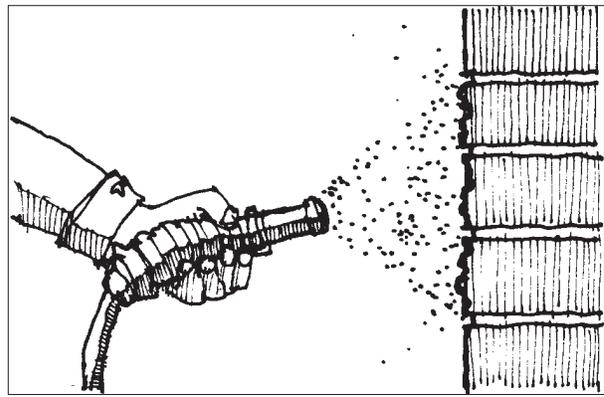
- 1) Painting masonry walls can seal in moisture already in the masonry, thereby not allowing it to breathe and causing extensive damage over the years.

E. Protect masonry from water deterioration.

- 1) Provide proper drainage so that water does not stand on flat, horizontal surfaces or accumulate in decorative features.
- 2) Provide positive drainage away from foundations to minimize rising moisture.



Avoid using mortar with a high Portland cement content, because it will be substantially harder than the brick and does not allow for expanding and contracting.



Abrasive cleaning methods, such as sand blasting, will not be allowed for brick structures.

F. Clean masonry with the gentlest methods possible.

- 1) Test cleaning procedures in sample patches first.
- 2) Low pressure water and detergent cleaning, using bristle brushes, is encouraged.
- 3) Abrasive cleaning methods, such as sand blasting, will not be allowed. They may remove the water-protective outer layer of the brick and thereby accelerate deterioration.

4. Metals

Metals were used for a variety of applications including columns, roofing, and decorative features. Metal applications should be maintained where they exist.

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

- 1) Provide proper drainage to minimize water retention.
- 2) Maintain protective coatings, such as paint, on exposed metals.

B. Repair metal features by patching, splicing or otherwise reinforcing the original metal whenever possible.

- 1) The new metal should be compatible with the original.

C. Use the gentlest cleaning method possible when removing deteriorated paint or rust from metal surfaces.

- 1) Harsh, abrasive cleaning methods should be avoided.



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

5. Replacement Building Materials

In some cases, the original material must be replaced. Using the same as the original is preferred, but an alternative may be considered. In either case, the new material should convey characteristics similar to the original.

A. Replacement building materials should appear similar to those used historically.

- 1) The replacement material(s) should match the original material in scale, finish and composition.
- 2) 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.
- 3) Replace only the amount needed. If a few boards are damaged beyond repair, then only they should be replaced, not the entire wall.
- 4) Materials such as aluminum and vinyl are inappropriate as substitute materials.



Replacement materials should be applied in a manner similar to that used historically.

B. Exterior wood finishes should appear similar to those used historically.

- 1) Maintain protective coatings of paint on exterior wood siding.

C. Masonry should appear similar to that used historically.

- 1) Masonry unit sizes should be similar to the original.
- 2) The texture and color of the brick also should be similar.

6. Roof Materials

Roof materials are major elements in a street scene and contribute to the character of individual building styles. However, they are susceptible to deterioration, and their replacement may become necessary in time. Replacement materials should be applied in a manner similar to that seen historically and chosen based on its compatible appearance to the structure and surrounding historic properties.

A. Preserve original roof materials.

- 1) Avoid removing roof material that is in good condition.
- 2) It is especially important to preserve historic materials, or replace them with similar materials when necessary.
- 3) Do not cover historic roof materials.



Roof materials are major elements in a street scene and contribute to the character of individual building styles.



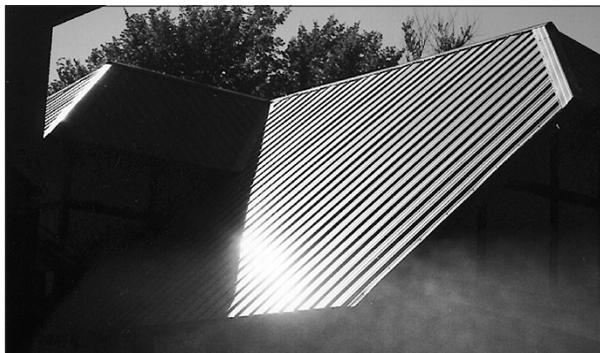
Do not cover historic roof material with another material.

B. Roofing replacement materials should convey a size and texture similar to those used traditionally.

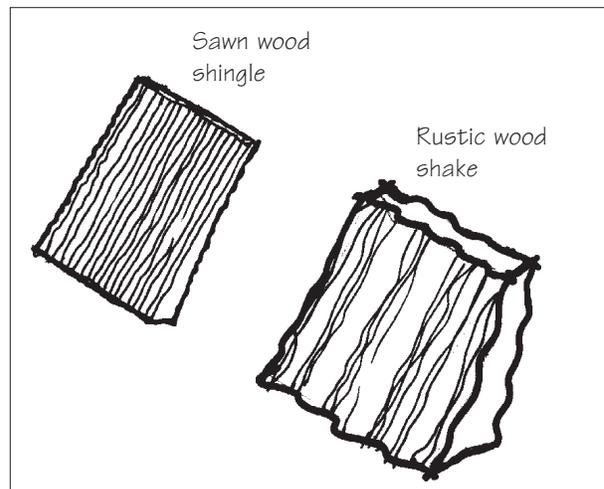
- 1) Where replacement is necessary, use materials similar to that seen historically.
- 2) The roof materials should be earth toned and have a matte, non-reflective finish.
- 3) Composition shingles may be considered, if they are colored in earth tones.
- 4) Sawn wood shingles may be considered for most building types. Rustic wood shakes are inappropriate.
- 5) Corrugated metal may also be appropriate.

C. If they are to be used, metal roofs should be applied and detailed in a manner that does not distract from the historic appearance of the building.

- 1) Metal roof material should be earth toned and have a matte, non-reflective finish.
- 2) Seams should have a thin profile.



A metal roof material should have a matte, non-reflective finish. The glare seen from this roof is inappropriate.



Sawn wood shingles may be considered for most building types. Rustic wood shakes are inappropriate.



A metal roof material should be earth toned and have a matte, non-reflective finish.

