Architectural
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Architecture

Planning
Conservation

Redlands Historic Architectural Design Guidelines

Prepared for

City of Redlands, CA

Prepared by

Architectural Resources Group

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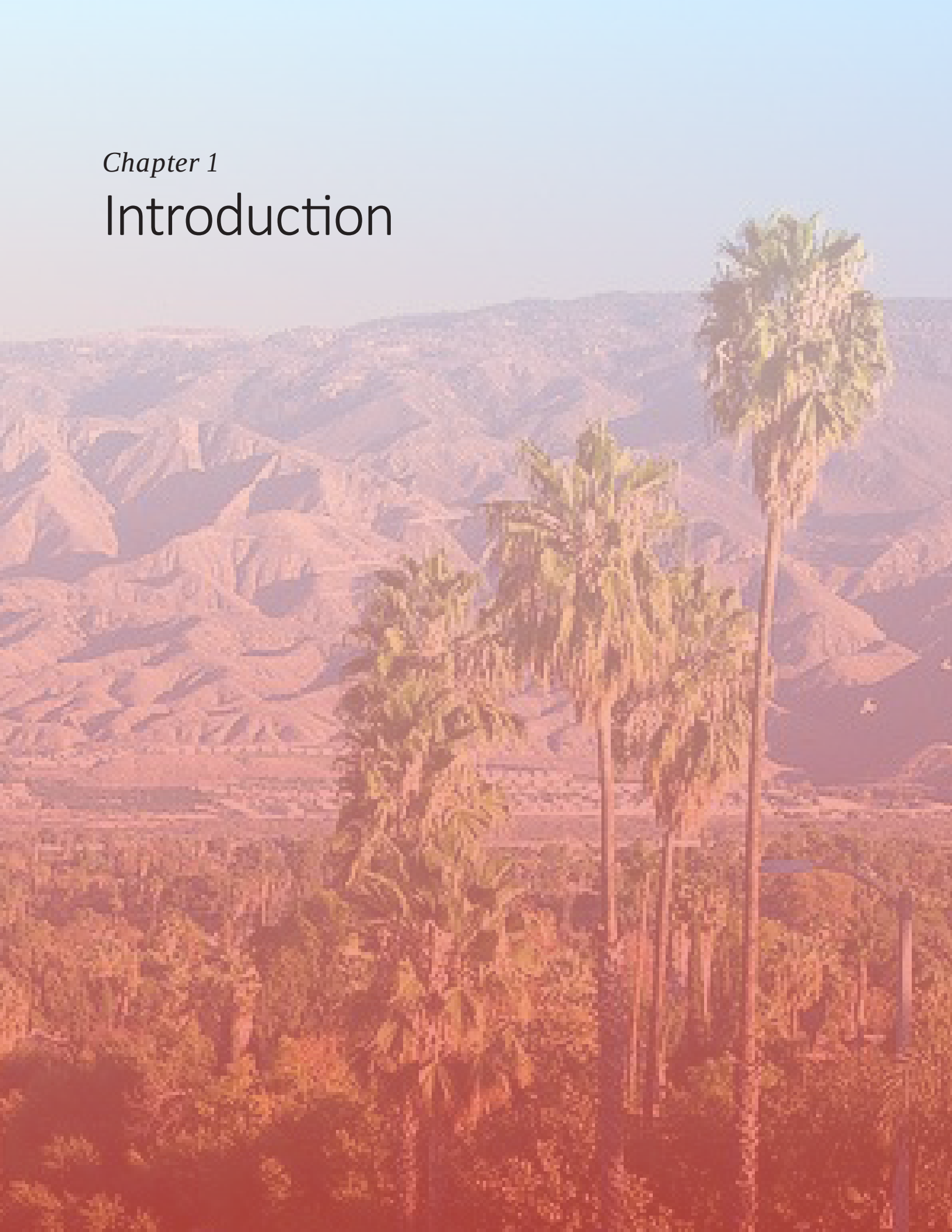
Chapter 1

Introduction



Chapter Overview

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    - Redlands Historic and Scenic Preservation Ordinance
    - California Environmental Quality Act (CEQA)
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Redlands: The Place

The City of Redlands has a sense of place unlike any other in Southern California's Inland Empire. Extending from the floodplain to the foothills, it boasts a mild climate and picturesque landscape that beckoned pioneering agriculturalists, winter-fleeing millionaires, migratory workers, suburban dreamers, and technological innovators in successive waves over a period of 150 years. The resulting historic built environment reflects all of these overlapping influences and contributes strongly to the character and feeling of Redlands.

Shaped by the citrus industry at the turn of the 20th century and expanded by construction booms in the 1920s and after World War II, Redlands' built environment reflects multiple different, but complementary periods of development. Its residential, commercial, industrial, and institutional property types combine to project the city's long-held image as a small town with big ideas.

The city's residents have long recognized the cultural and aesthetic value of its buildings and sites. They have sought to protect Redlands' unique character while also "welcoming innovation and adapting to the needs of future generations," as outlined in the Redlands General Plan 2035. However, as with many other cities across the country, some development has been out of character – resulting in "cookie cutter" designs or out-of-scale construction.

The General Plan seeks to "conserve the city's heritage through historic preservation of neighborhoods and buildings; protect the city's citrus heritage; and promote excellence in design and architecture that is sensitive to the surrounding community." The Redlands Historic Architectural Design Guidelines aim to support these goals by providing property owners and design professionals with the information they need to maintain, manage, and improve their historic buildings.

Purpose of the Historic Design Guidelines

Design guidelines are one of the many tools in the urban planning toolkit that are used to educate and encourage property owners to preserve, repair, and reuse historic buildings for the enhancement of the broader community. Many American cities of wildly varying sizes and identities have successfully implemented design guidelines, and the implementation of design guidelines in Redlands was identified as a goal during the development of the Redlands General Plan 2035.

What is a Historic Building?

For the purposes of this document, a "historic building" is broadly defined as a building over 50 years of age, and/or reflecting a historic development pattern or architectural style. This definition is broader than that of others you might hear, including "historic resource" (a building determined to be significant under California Environmental Quality Act (CEQA) standards) or "City of Redlands Historic Resource" (a locally designated building, AKA a "landmark.")

The purpose of the Redlands Historic Architectural Design Guidelines is to preserve the historic and architectural character of the city by providing historic preservation standards and resources for property owners and/or design professionals planning a historic building project. The guidelines will also be used by the City of Redlands Planning Department and the Historic and Scenic Preservation Commission in evaluating such projects. Historic buildings require repair and modern improvements to maintain their integrity and ensure continued use. The Design Guidelines provide suggestions on how best to preserve, maintain, repair, and restore historic buildings, as well as how to make alterations to historic buildings in a way that preserves their historic character and significant features. The guidelines also make recommendations for designing compatible new construction on a historic building site or within a historic neighborhood context.

The Design Guidelines herein supersede the City of Redlands Historic and Scenic Preservation Design Manual (1986).

Application & Use of the Guidelines

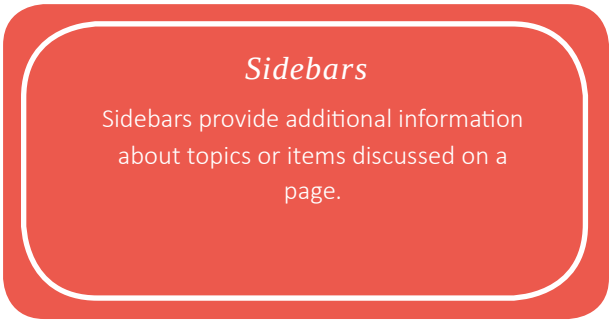
The Historic Architectural Design Guidelines are based on the *Secretary of the Interior's Standards for the Treatment of Historic Properties* and are intended as a planning tool for projects involving individually designated historic resources, buildings within designated historic districts, and other historic buildings located throughout Redlands.

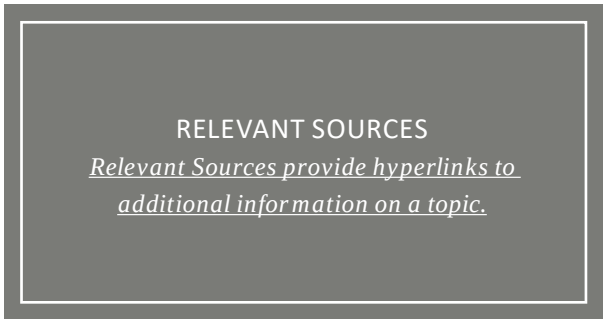
An inventory of City-designated historic resources is maintained in the City of Redlands Development Services Department List of Historic Resources. Individual historic resources are located throughout Redlands, but a large concentration are centered around Downtown Redlands and the historic Chicago Colony area, including eight (8) historic and/or scenic districts. While not designated or officially regulated, many of Redlands' historic buildings fall into recognizable Character Categories (see Ch. 6- Guidelines for Character Categories for more information). These categories encompass historic building types, architectural styles, and planning typologies that contribute to the aesthetic feeling and cultural character of the city; some include one or more geographic areas which may have potential for future designation as historic districts.

The Design Guidelines provide standards for best preservation practices and contextual design when undertaking an exterior alteration or addition, changes to site or accessory features, demolition of a historic building, or new construction on or adjacent to a historic site, historic and/or scenic district, or Character Category.

Graphic Supplements

Graphic elements are scattered throughout the Design Guidelines to provide additional information, sources, and guidance to the topics discussed on each page. These elements are described below:





Thumbs Up & Down

These icons are used to indicate "good" (compatible/appropriate) and "bad" (incompatible/inappropriate) design choices.

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Policy & Regulatory Framework

General Plan

The Design Guidelines are suggestions for best practices in historic preservation and are intended as a supplement to adopted City policies and state and national regulations. The Design Guidelines do not replace adopted policies, code, or regulations. Project planning should account for compliance with any applicable building or zoning codes, or other regulatory oversight independent of these guidelines.

Brief summaries of the most relevant policies and regulations are outlined below.

General Plan

The General Plan 2035 (http://www.redlands2035.org/) was adopted in 2017 and essentially serves as the "development constitution for Redlands." The General Plan establishes a long-range vision for the city's growth and contains the supporting policies to guide decision-making related to development, housing, transportation, environmental quality, public services, parks, and open spaces.

The Design Guidelines herein help to implement the General Plan's policies for cultural resources outlined in Chapter 2 (Distinctive City), including the following:

- **2-P.8** "Identify, maintain, protect, and enhance Redlands' cultural, historic, social, economic, architectural, agricultural, archaeological, and scenic heritage. In so doing, Redlands will preserve its unique character and beauty, foster community pride, conserve the character and architecture of its neighborhoods and commercial and rural areas, enable citizens and visitors to enjoy and learn about local history, and provide a framework for making appropriate physical changes."
- **2-P.10** "Foster an understanding and appreciation of history and architecture."
- **2-P.11** "Encourage retention of the character of existing historic structures and urban design elements that define the built environment of the city's older neighborhoods."
- **2-P.12** "Encourage retention of historic structures in their original use or reconversion to their original use where feasible. Encourage sensitive, adaptive reuse where the original use is no longer feasible."
- **2-P.14** "Coordinate preservation of historic resources with policies designed to preserve neighborhoods and support the affordability of housing in historical structures."
- **2-P.15** "Balance the preservation of historic resources with the desire of property owners of historic structures to adopt energy efficient strategies."

Policy & Regulatory Framework

Land Use Zoning, California Building Code, and Downtown Specific Plan

Land Use Zoning

The Land Use Zoning Ordinance of the City of Redlands Municipal Code (https://www.cityofredlands.org/cms/one.aspx?pageId=7278582) was established to encourage appropriate land use for the orderly development of the city. Zoning governs the use, form, density, and design of a building or neighborhood. In Redlands, the stated purpose of the Zoning Ordinance is "to conserve and stabilize the value of property; to provide adequate open spaces for light and air, and to prevent and permit adequate control of fires; to prevent undue concentration of population; to lessen congestion on streets; to facilitate adequate provision for community facilities and utilities, including transportation, water supply, sewage disposal, schools, parks and other public requirements which tend to promote the health, safety and public welfare." All projects must meet the zoning code. If conformance with the zoning code would adversely impact the historic character of a building, property owners may apply to the Redlands Planning Commission for a zoning variance.

California Building Code

The Health and Safety Ordinance of the City of Redlands Municipal Code mandates the adoption of the most recent California Building Standards Code (http://www.bsc.ca.gov/Codes.aspx). The California Building Standards Code provides minimum standards for the design and construction of buildings and structures in California. All projects must meet the building code, although there may be exceptions for the treatment of historic buildings as outlined in Part 8 - California Historical Building Code.

Downtown Specific Plan

The Downtown Specific Plan (https://www.cityofredlands.org/city-hall/departments/development_services/planning_division/specific_plans) supplements the Redlands General Plan with more detailed land use policies for the Downtown area, including some residential and civic areas in south Downtown. The goal of the plan is to support the economic vitality of Downtown Redlands with the development of financial, technical, professional, and research-development offices and services in the area, all supported by retail restaurants, entertainment, cultural activities, pedestrian-friendly circulation, and street design. The plan has an emphasis on mixed-use and transit-oriented development, including guidelines to ensure compatibility with historic buildings.

Transit Village Plans

Development in portions of the City adjacent to the San Bernardino to Redlands Arrow passenger rail line will also be guided by the Transit Village Specific Plans -- the guidelines are individually tailored for each Transit Village (in the areas of Downtown, New York Street, and the University of Redlands). See https://redlandstransitvillages.org/ for more information.

Policy & Regulatory Framework

National Register and California Register

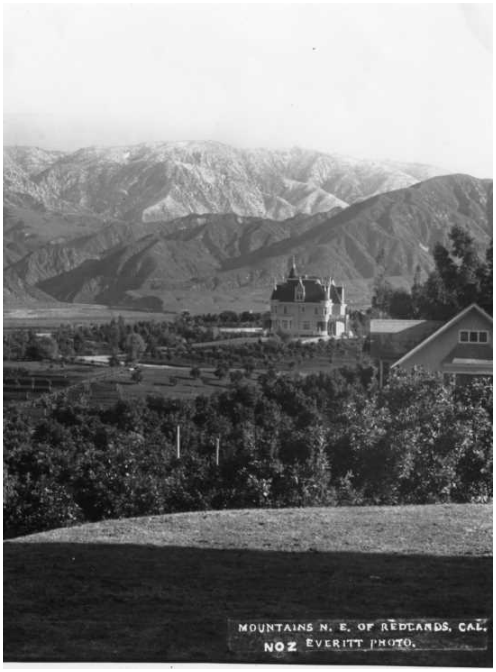
National Register

The National Register of Historic Places (National Register) is the nation's master inventory of known historic resources. Created under the auspices of the National Historic Preservation Act of 1966, the National Register is administered by the National Park Service (NPS) and includes listings of buildings, structures, sites, objects, and districts that possess historic, architectural, engineering, archaeological, or cultural significance at the national, state, or local level. NPS also administers federal tax incentives for the certified rehabilitation of National Register-listed properties.

Redlands features two National Register districts:

- Redlands Santa Fe Depot District
- Smiley Park Historic District

Reference the National Park Service website at https://www.nps.gov/subjects/nationalregister/index.htm, *for more information relating to listing on the National Register or applying for federal tax incentives.*



California Register

The California Register of Historical Resources (California Register) is the authoritative guide to the state's significant historical and archeological resources. In 1992, the California legislature established the California Register "to be used by state and local agencies, private groups, and citizens to identify the state's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change." The California Register program encourages public recognition and protection of resources of architectural, historical, archaeological, and cultural significance; identifies historical resources for state and local planning purposes; determines eligibility for historic preservation grant funding; and affords certain protections under CEQA. All resources listed in or formally determined eligible for the National Register are automatically listed in the California Register. In addition, properties designated under municipal or county ordinances, or through local historic resources surveys, are eligible for listing in the California Register (though they are not formally listed in the Register).

Reference the California State Parks Office of Historic Preservation website at http://ohp.parks.ca.gov/?page_id=21238 *for more information relating to the California Register.*

Policy & Regulatory Framework

Local Designation and CEQA

Redlands Historic and Scenic Preservation Ordinance

Redlands administers its own designation program for historic and scenic properties within the city. The Redlands Historic and Scenic Preservation Commission was established in 1986 under the City of Redlands Municipal Code to make recommendations, decisions, and determinations regarding the designation and protection of the historical, scenic, and cultural resources in Redlands. The Preservation Commission is responsible for recommending the designation of both individual properties (Historic Resources or Landmarks) and groupings of properties (Historic Districts or Historic and Scenic Districts) that are related geographically or thematically to City Council for approval. The Historic and Scenic Preservation Commission also reviews any exterior modifications to a designated historic resource or the demolition of a designated resource or any structure over fifty (50) years old.

Redlands features eight (8) locally designated historic districts:

- Eureka Street Historic District
- West Highland Avenue Historic and Scenic District
- Early Redlands Historic and Scenic District
- Normandie Court Historic District
- East Fern Avenue Historic and Scenic District
- Garden Hill Historic and Scenic District
- La Verne Street Historic and Scenic District
- Smiley Park Historic and Scenic District

Reference the City of Redlands Historic Preservation website at https://www.cityofredlands.org/city-hall/departments/development_services/planning_division/historic_preservation, *for more information relating to local designation and Redlands' historic districts.*

California Environmental Quality Act (CEQA)

The California Environmental Quality Act (http://resources.ca.gov/ceqa/more/faq.html) is an environmental law that requires state and local agencies to identify and publically disclose significant environmental impacts of discretionary actions, and to avoid or mitigate any impact if feasible. Some historic building projects, especially changes in use and demolitions, may require environmental review. If applicable, the Redlands Environmental Review Committee (ERC) would review the project proposal and recommend either an Environmental Impact Report or Negative Declaration be prepared.

Policy & Regulatory Framework

Secretary of the Interior's Standards for the Treatment of Historic Properties

Secretary of the Interior's Standards for the Treatment of Historic Properties

The *Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings* provide recommendations and guidelines for stewards of historic properties to determine appropriate treatments. They are intentionally broad in scope to apply to a wide range of circumstances and are designed to enhance the understanding of basic preservation principles. The Standards are neither technical nor prescriptive, but are intended to promote responsible preservation practices that ensure continued protection of historic properties. There are four basic approaches outlined in the Standards: Preservation, Rehabilitation, Restoration, and Reconstruction.

- **Preservation** focuses on the maintenance and repair of existing historic materials and retention of a property's form as it has evolved over time.
- **Rehabilitation** acknowledges the need to alter or add to a historic property to meet continuing or changing uses while retaining the property's historic character.
- **Restoration** is undertaken to depict a property at a particular period of time in its history, while removing evidence of other periods.
- **Reconstruction** re-creates vanished or non-surviving portions of a property for interpretive purposes.

RELEVANT SOURCES

National Park Service, Technical Preservation Services, "The Treatment of Historic Properties"

Policy & Regulatory Framework

Secretary of the Interior's Standards for the Treatment of Historic Properties

The Standards for Rehabilitation, which are the most comprehensive and commonly used of the four approaches, are outlined below:

1. A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.
2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize a property will be avoided.
3. Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.
4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.
5. Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize a property will be preserved.
6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.
7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.
8. Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.
9. New additions, exterior alterations or related new construction will not destroy historic materials, features and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.
10. New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

Design Review Process

The design review process applies to Redlands' individually designated historic resources or buildings within designated historic districts. The Historic and Scenic Preservation Commission reviews any exterior alterations, moves, or subdivisions of a designated resource through a Certificate of Appropriateness Application process; and the demolition of a designated historic resource or any structure over fifty (50) years old through the Demolition Application process. The aforementioned modifications must obtain approval from the Historic and Scenic Preservation Commission before the project proceeds.

For projects subject to design review and approval, the chart on the opposite page outlines the general process and materials required.

Staff-level review alterations typically include:

- Alterations to the inside of any structure, including designated structures.
- Landscaping unless specifically designated.
- Outside alterations to structures which are less than fifty (50) years old.
- Outside alterations to structures over fifty (50) years which are not designated and not located in a district; however, it is best to consult with staff as to the sensitivity of older structures.
- Re-painting of a building in the same colors.

Design Review Process

Pre-Application

- Consult with the Planning Department staff regarding the age or historic status of a property.
- Develop a project scope in accordance with the following Historic Architectural Design Guidelines.

Application

- Submit an application form and all required materials to the Planning Department staff.
- An Application form may be accessed via the City of Redlands Historic Preservation Department website: https://www.cityofredlands.org/UserFiles/Servers/Server_6255662/File/City%20Hall/Departments/Development%20Services/Planning%20Division/Historic%20Preservation/Certificate%20of%20Appropriateness.pdf.

Review & Approval

Track A: Staff Review & Approval

- Staff reviews the application for completeness and conformance with the Historic Design Guidelines.
- Staff provides comments on the application, which may include requests for revisions or supplemental material to complete their review.
- Staff approves the application.

Track B: Commission Review & Approval

- Staff reviews the application for completeness and conformance with the Historic Design Guidelines. Upon a complete application, Staff schedules the application for public review by the Commission.
- Historic and Scenic Preservation Commission meets one time per month. Upon hearing an application and any associated public testimony, the Commission may request more information, design revisions, or additional time to make a decision; or they may approve or deny the application.

Building Permit

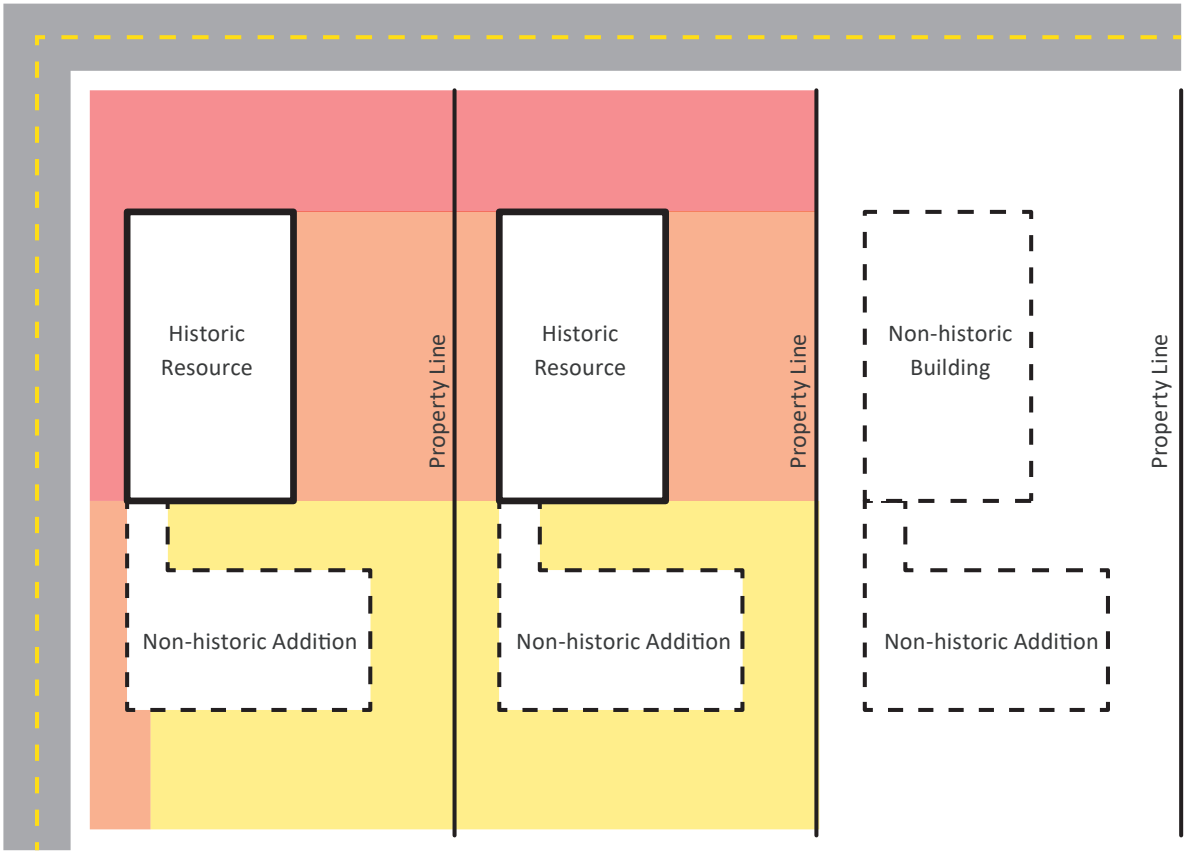
- Staff will review final construction drawings for conformance with Staff or Commission approval and issue a Certificate of Appropriateness permit.

Views and Visibility

Zones of Significance

The purpose of the Design Guidelines is to help preserve the character of Redlands' historic resources for the benefit of the greater community. For this reason, the guidelines focus on maintaining original architectural features, details, and materials that are visible to the public from the street or sidewalk immediately adjacent to a property (the public right-of-way).

The following diagram illustrates what areas of a historic property are most important to preserve, according to their level of visibility from the public right-of-way.



Highly Visible portions of the property, such as street-facing façades, should retain all of their original features, details, and materials, to the greatest extent possible.

Moderately Visible portions of the property, such as side façades that face away from the street, should retain most of their original features, details, and materials. However, minor alterations that are compatible with the historic character of the property may be acceptable.

Least Visible portions of the property, such as the rear façade and back yard, provide for the greatest flexibility regarding alterations, such as additions and changes in fenestration.

NOTE: Zones of significance are approximate and deviations may be deemed appropriate by the Historic and Scenic Preservation Commission. Unrestricted areas may include secondary historic resources such as a historic shed or outbuilding. When this occurs, the resources should be treated as moderately significant.

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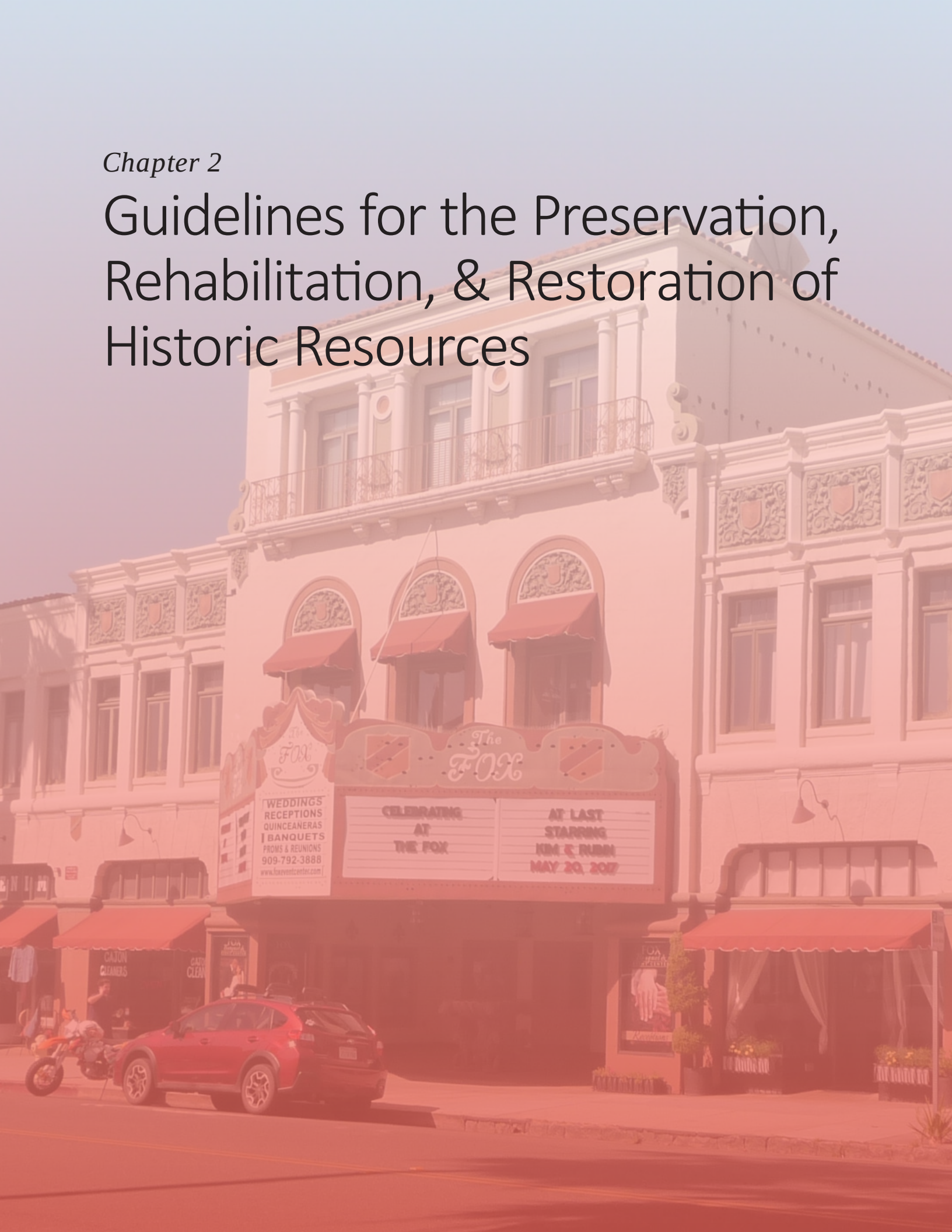
Chapter 2

Guidelines for the Preservation, Rehabilitation, & Restoration of Historic Resources



Chapter Overview

This chapter provides guidelines for the treatment of a broad range of items associated with historic properties, using the *Secretary of the Interior's Standards* to offer options for preservation, maintenance, repair, replacement, and restoration. The guidelines apply to architectural features and details; specific building components like windows, doors, roofs, and foundations; existing additions to historic properties; residential features like porches, ancillary structures, and miscellaneous accessory features; and commercial features including storefronts, awnings/canopies, and signage.

Use This Chapter If...

- You own a historic property and the wall cladding, window(s), door(s), roof, or other exterior features have deteriorated and are in need of repair or replacement.
- You are undertaking a restoration of your historic building to bring it back to its former glory.
- You are interested in adding a new feature, such as a porch, to your historic building in a way that is compatible with the building's historic character.

What's Inside...

Individual Building Components
- Architectural Features & Details
- Windows
- Doors
- Roofs
- Foundations
- Historic Additions

Residential Building Features
- Residential - Porches
- Residential - Ancillary Structures
- Residential - Miscellaneous Accessory Elements

Commercial and Mixed-Use Building Features
- Commercial - Storefronts
- Commercial - Awnings & Canopies
- Commercial - Signage

Architectural Features & Details

Treatment Guidelines

This section addresses the treatment of historic architectural features and details that distinguish and give character to the exterior of a building. Architectural features and details are the distinctive elements that make up a building, as well as the distinctive finishes, trim, and ornament that embellish a building's façade. Examples include projecting eaves, columns, parapets, decorative moldings, and brackets. Similar to historic building materials, architectural features and details help to convey the style, craftsmanship, and development period of a building. Proper treatment is important to preserving the character and integrity of Redlands' historic buildings.

Decorative gingerbread details and multi-colored shingles are defining features of Queen Anne and Stick architecture that should be preserved.

Repair and maintain historic architectural features, such as this cornice, to prolong its life.

Preserve

- Preserve architectural features and details that contribute to the overall historic character and style of the building.
- Preserve the location, design, scale, massing, proportion, and materials of historic architectural features and details.
- Avoid covering historic architectural features and details.

Maintain

- Maintain historic architectural features and details to prolong their life and protect investments made in their construction and repair. Proper routine maintenance is important to their long-term preservation.
- Routine maintenance may include: securing attachments; cleaning by hand; caulking; scraping, priming, and repainting; polishing; applying protective finishes; or other light treatments.

Repair

- Repair historic architectural features and details when the physical condition warrants additional work.
- Repair work may include: chemical cleaning, high-pressure washing; patching, splicing, or consolidating architectural elements; chemical paint stripping; scraping and repointing joints; or other treatments.
- All repairs should be carried out to match existing historic architectural features and details in material, size, pattern, texture, finish, and overall character.

Architectural Features & Details

Treatment Guidelines

Replace

- Replace historic architectural features and details only when deteriorated beyond repair.
- Replacement architectural features and details should be replicated from existing historic features and details to match in material, size, pattern, texture, finish, and overall character.
- Use of alternative compatible materials may be appropriate on secondary façades, not readily visible from the public right-of-way.

Restore

- Restore historic architectural features and details that are missing or covered up.
- Restoration may include the replacement of missing historic architectural features or details, based on physical or historic documentation, with the same materials or compatible substitutes.
- Restoration may include the removal of non-historic material or features in order to uncover historic features or details.

Alterations and Additions

- Avoid adding new historic architectural features and details where they did not exist historically, as this may convey a false sense of history or may change the architectural style of the building.
- If new features or details are required as part of a compatible addition or alteration, they should match with the overall historic character of the building in material, scale, pattern, texture, and finish.

Restore historic architectural features that are missing or are covered up.

Avoid adding new features that are not appropriate to the architectural style of a building, such as classical columns on a Ranch style house.

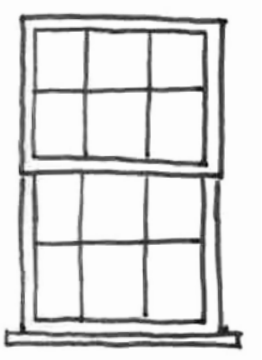
RELEVANT SOURCES

National Park Service Preservation Brief 17: Architectural Character - Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving their Character

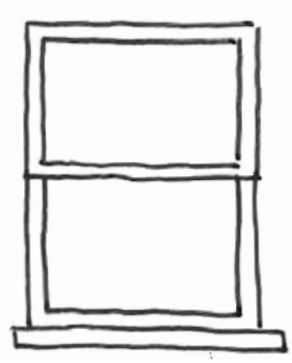
Windows

Historic Window Types Seen in Redlands

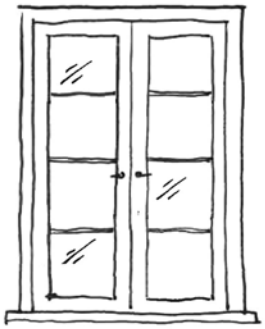
This section addresses the treatment of historic windows and the variety of window types that exist in Redlands. Windows, especially at the primary façade(s), are one of the most significant architectural features of a building. They typically comprise a large portion of the façade and help define the vertical and horizontal orientation of the building. The main components of a window, including the sash (rails, stiles, muntins), mullions, frame, sill, surround, glazing, transom, and apron, are all integral to its design. The size, design, configuration, operation, materials, profiles, details, and finish of a building's windows help convey its style and development period. Proper treatment of historic windows is important to preserving the character and integrity of historic buildings in Redlands.



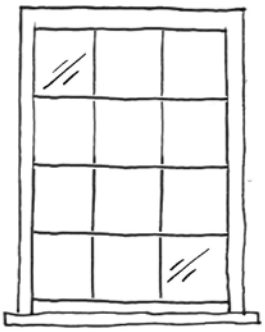
double hung (6/6)



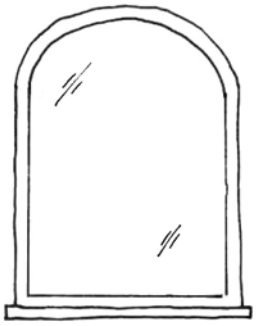
double hung (1/1)



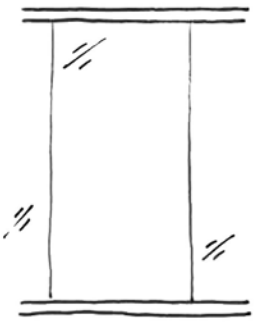
casement



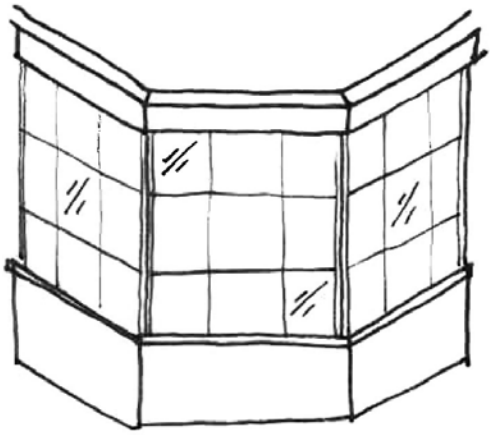
fixed (non-operable)



arch



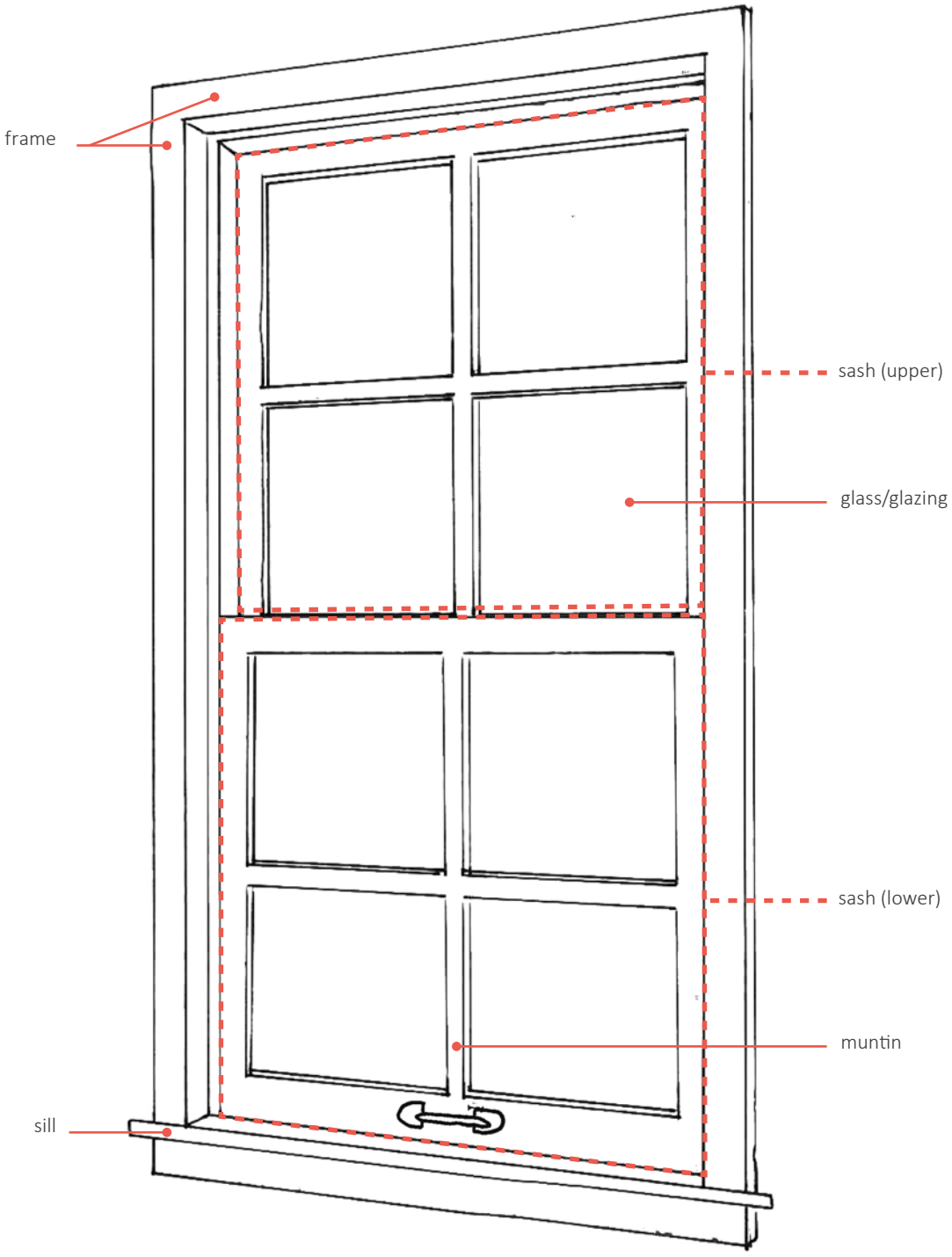
mitered/butt-glazed



bay

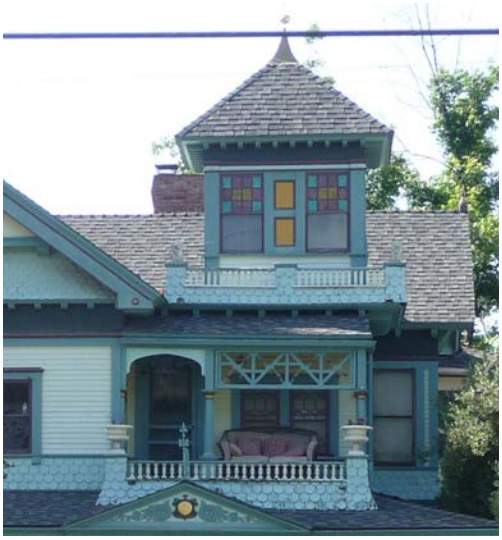
Windows

Historic Window Components



Windows

Treatment Guidelines



Stained or leaded glass windows are unique architectural features that should be preserved.

Repair historic windows when the physical condition warrants additional work.

Preserve

- A historic window is an important architectural feature that should be preserved.
- Preserve the location, number, and arrangement of historic windows, particularly at a building's primary façade and those most visible from the public right-of-way.
- Preserve a historic window's materials (i.e. glass, wood, metal) and components, including its surround, frame, sash, hardware, and glazing.
- Avoid infilling a historic window opening.
- Prioritize the preservation of stained or leaded glass, or corner steel windows, which are rare and unusual.

Maintain

- Maintain a historic window to prolong its life and protect investments made in its construction and repair. Proper routine maintenance is important to the long-term preservation of a historic window and its components.
- Routine maintenance may include: cleaning by hand; applying new glazing putty; scraping, priming, and repainting; applying protective finishes; securing or lubricating hinges or hardware to maintain operability; weather-stripping; or other light treatments.

Repair

- Repair a historic window when the physical condition warrants additional work.
- Repair work may include: replacing cracked or broken glass; patching, splicing, or consolidating elements such as the surround, frame, and muntins; or other treatments.
- Repair work may include the limited in-kind replacement of extensively deteriorated or missing window components.
- All repairs should be carried out to match an existing historic window in size, design, configuration, operation, materials, profiles, details, and finish.

Windows

Treatment Guidelines

Replace

- Replace a historic window only when it is deteriorated beyond repair.
- A replacement window should be replicated from an existing historic window to match the size, design, configuration, operation, materials, profiles, details, and finish.
- Match the exterior profiles and dimensions of the historic window as closely as possible. The original window opening and surround should not be altered to accommodate a larger or smaller window.
- Clear glazing should be replaced with clear glazing, and tinted glazing with tinted glazing, with transparency matching that of the historic glass. Consider replacing clear glass with clear low-e glazing.

Refer to the "Energy Conservation and Environmental Sustainability" section of Ch. 4 - Systems, Accessibility, and Sustainability for more information about energy improvements to historic glazing.

- Use of alternative configurations or compatible materials may be appropriate on secondary façades, not readily visible from the public right-of-way.

If window replacement is necessary, maintain the historic size, shape, and profiles of historic window openings.

Restore

- Restore a historic window that is missing, infilled, or altered.
- Restoration may include the replacement of a missing window, based on physical or historic documentation, to match the size, design, configuration, operation, materials, profile, details, and finish as closely as possible.

Restore a historic window that is missing, infilled, or altered.

Windows

Treatment Guidelines

Avoid altering the size or shape of historic window openings on the primary façade of the building.

Avoid replacing windows with stock items that are incompatible with the historic materials or colors of the building.

Alterations and Additions

- It may be appropriate to alter or add a new window when the original is missing or if it is required for the continued use or adaptive reuse of a building.
- If a new window is required, it should preferably be constructed at secondary façades, not readily visible from the public right-of-way.
- New windows should be compatible in scale, style, and material to the overall building or similar buildings in age and type, but contemporary in design, so as not to create a false sense of history.
- Consider fixing an existing window in place rather than enclosing/infilling. An enclosed window should maintain a reveal of the historic opening.
- An expanded or new window should be compatible with the location, pattern, scale, and proportions of the other openings on the façade.
- Significantly increasing or decreasing the solid to void ratio of the façade detracts from the historic character of the building and should be avoided.
- Retention and reuse of remaining surrounds and painting windows in a historic color are encouraged.

RELEVANT SOURCES

National Park Service Preservation Brief 9: The Repair of Historic Wooden Windows

National Park Service Preservation Brief 13: The Repair and Thermal Upgrading of Historic Steel Windows

National Park Service Preservation Brief 33: The Preservation and Repair of Historic Stained and Leaded Glass

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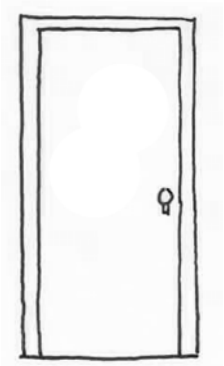
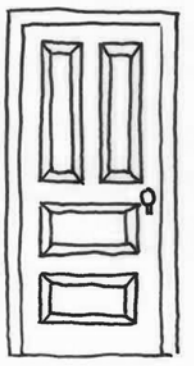
Doors

Historic Door Types Seen in Redlands

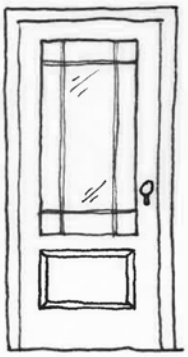
This section addresses the treatment of historic doors and the variety of door types that exist in Redlands. Doors, especially at the primary façade, are significant architectural features of a building. They typically relate to the window pattern and mark the main entrance and important points of egress. The main components of a door, including the paneling, hardware, frame, glazing, threshold, transom, and sidelights, are all integral to its design. The design, configuration, materials, details, and finish of doors help convey the style and development period of a building. Thus, proper treatment of historic doors is important to preserving the character and integrity of historic buildings in Redlands.



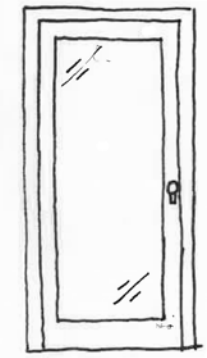
slab



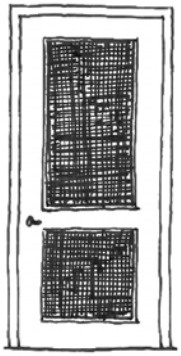
paneled



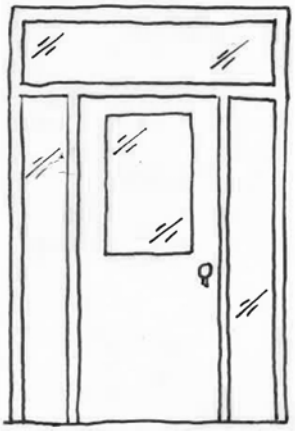
partially glazed



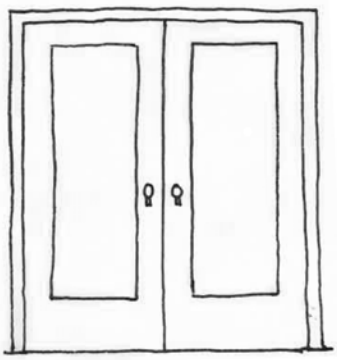
fully glazed



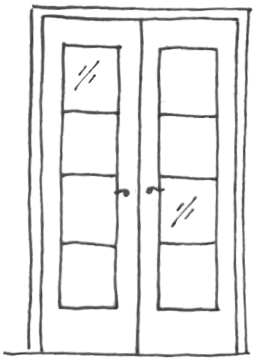
screen door



door with sidelights and transom



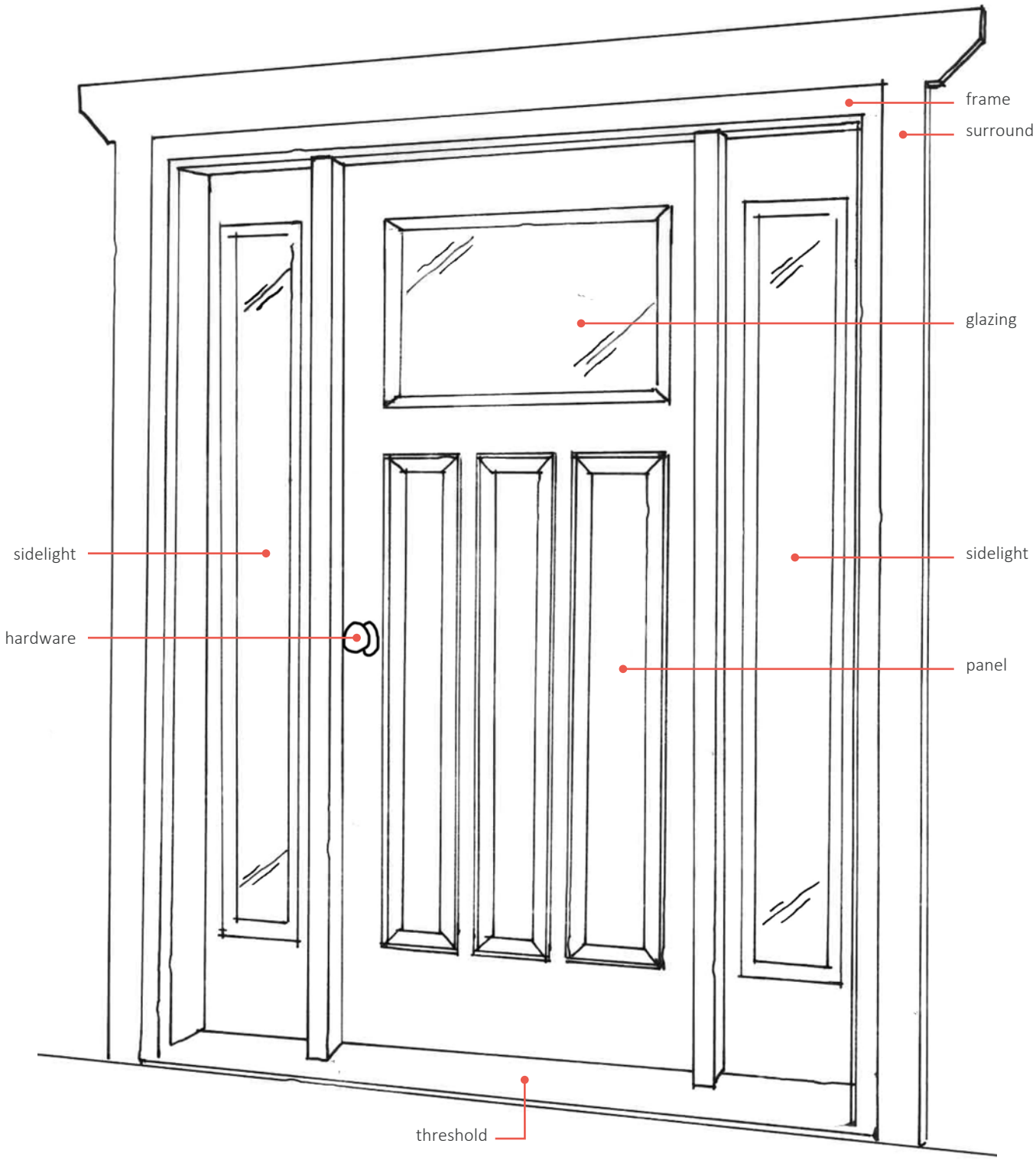
double doors



french doors

Doors

Historic Door Components



Doors

Treatment Guidelines

Paired wood slab doors are an important architectural feature of this Contemporary Ranch style house.

Maintenance, such as repainting and adding new glazing putty, will prolong the life of a historic door.

Preserve

- A historic door is an important architectural feature that should be preserved.
- Preserve the location, number, and arrangement of historic doors, particularly at a building's primary façade and those most visible from the public right-of-way.
- Preserve a historic door's materials (i.e. glass, wood, metal) and components, including its surround, frame, paneling, hardware, and glazing.
- Avoid filling in a historic door opening.
- Prioritize the preservation of doors with special glazing or shapes that are especially rare and unusual.

Maintain

- Maintain a historic door to prolong its life and to protect investments made in its construction and repair. Proper routine maintenance is important to the long-term preservation of a historic door and its components.
- Routine maintenance may include: cleaning by hand; applying new glazing putty (if the door has glazing); scraping, priming, and repainting; applying protective finishes; securing or lubricating hinges or hardware to maintain operability; weather-stripping; or other light treatments.

Repair

- Repair a historic door when the physical condition warrants additional work.
- Repair work may include: replacing cracked or broken glass; patching, splicing, or consolidating elements such as the frame and surround; chemical paint stripping; or other treatments.
- Repair work may include the limited, in-kind replacement of extensively deteriorated or missing door components.
- All repair work should be compatible with an existing historic door in size, design, configuration, operation, materials, profiles, details, and finish.

Doors

Treatment Guidelines

Replace

- Replace a historic door only when it is deteriorated beyond repair.
- A replacement door should be replicated from an existing historic door to match the size, design, configuration, operation, materials, profiles, details, and finish. The original door opening and surround should not be altered to accommodate a larger or smaller door.
- Clear glazing should be replaced with clear glazing, and tinted glazing with tinted glazing, with transparency matching that of the historic glass. Consider replacing clear glass with clear low-e glazing.

Refer to the "Energy Conservation and Environmental Sustainability" section of Ch. 4 - Systems, Accessibility, and Sustainability for more information about energy improvements to historic glazing.

- Use of alternative compatible materials may be appropriate on secondary façades, not readily visible from the public right-of-way.

Restore a historic door that is missing, infilled, or altered.

Restore

- Restore a historic door that is missing, infilled, or altered.
- Restoration may include the replacement of a missing door, based on physical or historic documentation, to match the size, design, configuration, operation, materials, profile, details, and finish as closely as possible.

Doors

Treatment Guidelines

An example of a historically compatible screen door.

Avoid installing a metal security door that obscures the original historic door from view.

Alterations and Additions

- It may be appropriate to alter or add a new door when the original is missing or if it is required for the continued use or adaptive reuse of a building.
- If a new door is required, it should be compatible in scale, style, and material to the overall building or similar buildings in age and type, but contemporary in design so as not to create a false sense of history.
- A new door should be constructed at secondary façades, not readily visible from the public right-of-way, if possible.
- Consider fixing an existing door in place rather than enclosing/ infilling. An enclosed door should maintain a reveal of the historic opening.
- An expanded or new door should be compatible with the location, pattern, scale, and proportions of the other openings on the façade.
- Significantly increasing or decreasing the solid to void ratio of the façade detracts from the historic character of the building and should be avoided.
- Retention and reuse of any remaining original fabric such as surrounds or hardware is encouraged.

RELEVANT SOURCES

National Park Service Preservation ITS No. 4: Inappropriate Replacement Doors

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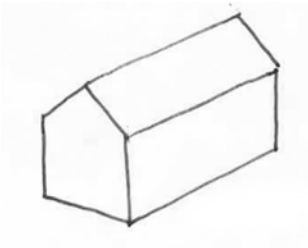
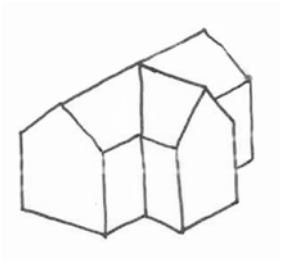
Roofs

Historic Roof Types

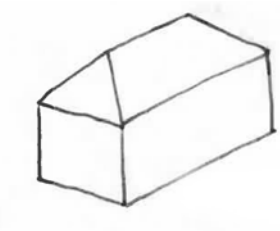
This section addresses the treatment of roofs and the variety of roof types that exist in Redlands. Roofs are a significant functional and distinguishing feature of a building. Roofs shelter the building from exterior environmental elements and serve as the overarching protection for all of the building's materials and features. Aesthetically, roofs define the form and massing of a building. The main components of a roof, including its structure, underlayment, flashing, gutters, covering (i.e. shingles, tiles), parapets, and trim, as well as its smaller architectural features, such as its eaves, chimney, dormers, and skylights, are all integral to the roof's design. The pitch, shape (i.e. gable, hipped, cross-gable, gambrel, mansard, or flat), materials (i.e. clay, wood, slate, or metal), pattern, profiles, color, and details of a roof all help convey the style and development period of a building. Proper treatment of historic roofs is important to preserving the character and integrity of historic buildings in Redlands.



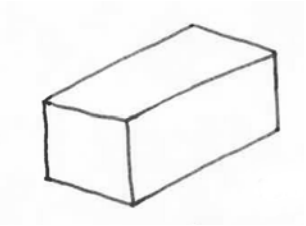
gable



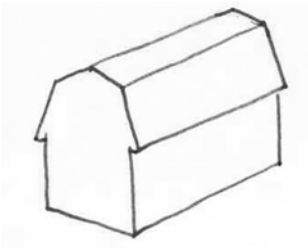
cross-gable



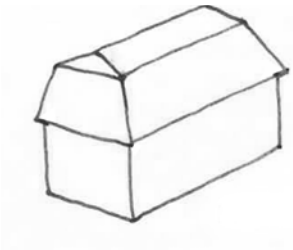
hipped



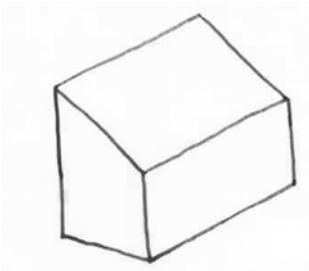
flat



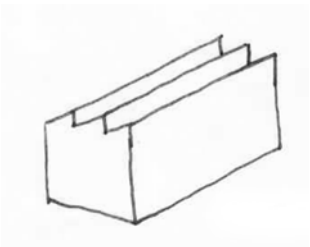
gambrel



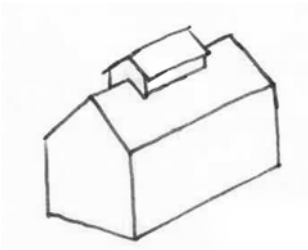
mansard



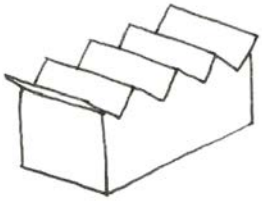
shed



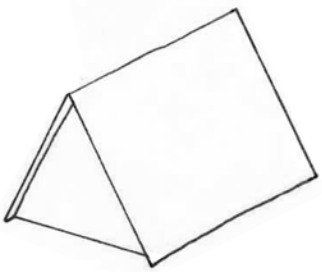
sawtooth



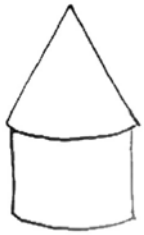
monitor



folded plate



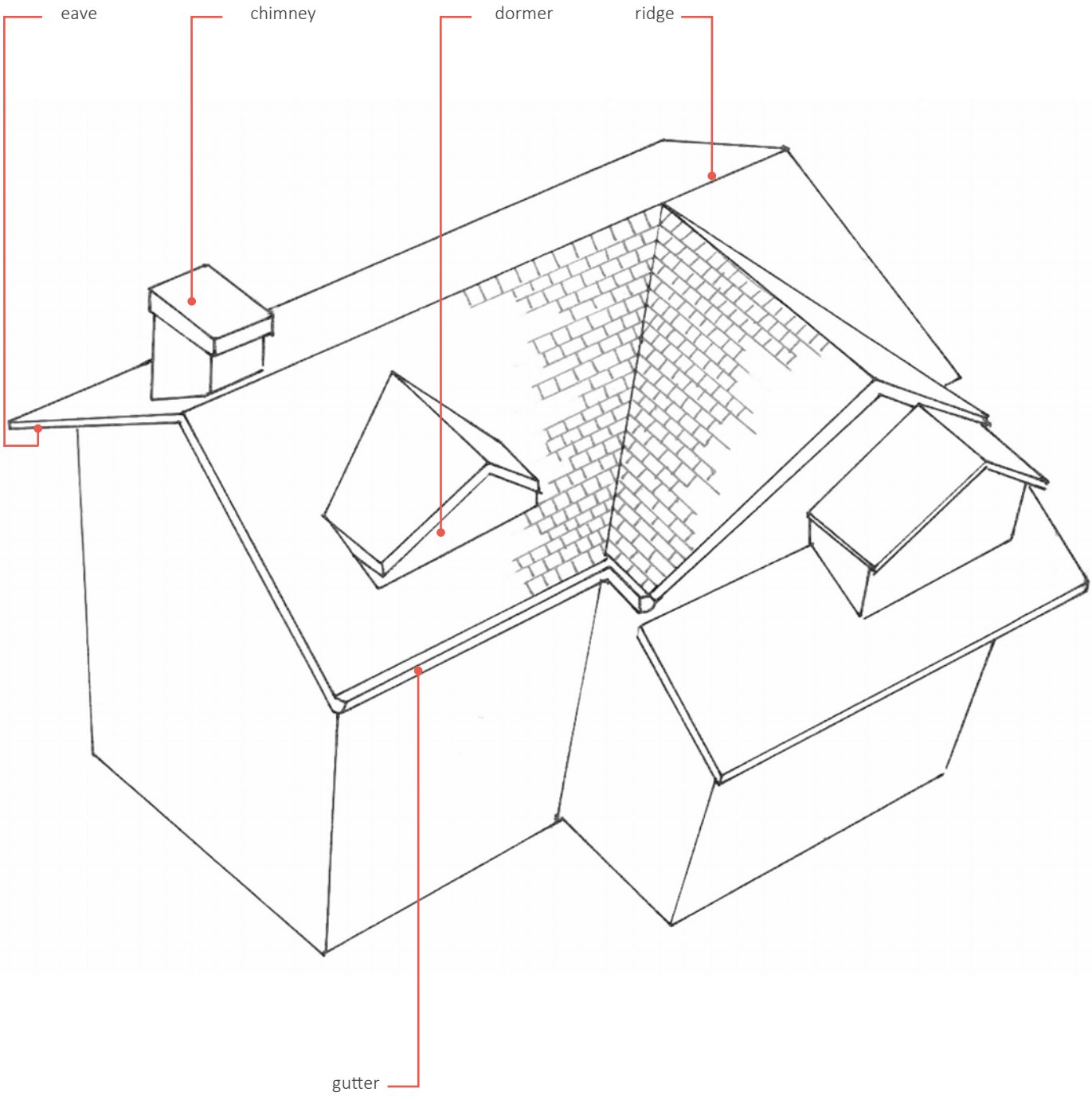
A-frame



conical

Roofs

Historic Roof Components



Roofs

Treatment Guidelines

A gambrel roof is an important architectural feature of this Shingle style building and should be preserved.

Routine maintenance is the key to preserving a wood shingle roof.

Preserve

- A historic roof is an important architectural feature that should be preserved.
- Preserve the original massing, form, design, and materials of a historic roof and its components.
- Prioritize the preservation of rare and unique roof types such as Mission-style roofs with sculptured parapets, Mid-Century Modern-style roofs with prominent curves, and industrial roof types/features, including sawtooth roofs and roof monitors.

Maintain

- Maintain a historic roof to prolong its life and protect investments made in its construction and repair. Proper routine maintenance is important to the long-term preservation of a historic roof, its materials components, and the building it shelters.
- Routine maintenance may include: inspecting for damage, cleaning gutters, remediating insect or bird nesting, removing vegetation growth, securing shingles, applying protective finishes, waterproofing, or other light treatments.
- Maintenance may include applying a temporary covering to protect a roof in need of repair.

Repair

- Repair a historic roof when the physical condition of materials or components warrants additional work.
- Repair work may include patching holes or seams, resetting shingles or tiles, spreading new gravel, or other treatments. Seek the gentlest repair solution possible.
- Repair work may include limited, in-kind replacement of extensively deteriorated or missing roof shingles, tiles, flashing, or other roof components.
- All repair work should be compatible with an existing historic roof in design, materials, profile, color, and details. New shingles/tiles should match the color and “aged” appearance of the historic and small-scale mixing of the new and old will provide a more unified appearance of the patched area.

Roofs

Treatment Guidelines

Replace

- Replace a historic roof only when it is deteriorated beyond repair.
- A replacement roof should match the existing historic roof in form, massing, materials, profiles, color, and details. The reinstallation of any salvageable tiles or shingles along with the new should be prioritized.
- Use of alternative compatible materials may be appropriate if the historic materials are not available, infeasible, or not visible, such as on a flat roof.
- New roofing material may also be appropriate when the historic material is against building code standards. For example, wood shingles, which are not compatible with modern fire code, may be treated with a fire retardant or replaced with composite shingles that closely match in size, profile, and color.
- Use of alternative compatible materials may be appropriate if the historic materials are not available, infeasible, non-visible, or against building code standards.

Restore

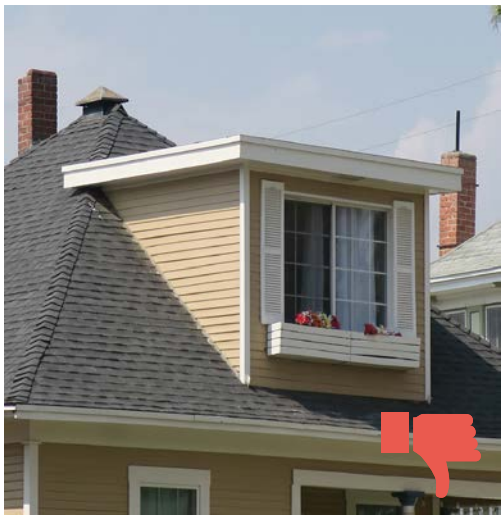
- Restore a historic roof that is missing or altered.
- Restoration may include the replacement of a missing roof or roof features, based on physical or historic documentation, to match the form, materials, profiles, color, and details as closely as possible.

Replace a historic roof only when it is deteriorated beyond repair.

New roof tiles or shingles should match the material, size, profile, and color of the historic roof as closely as possible.

Roofs

Treatment Guidelines



Avoid adding new roof features that are not compatible with the scale and style of the historic roof and overall building.

Alterations and Additions

- It may be appropriate to alter or add a new component on a roof, such as a chimney, dormer, or skylight, if the original is missing or if it is required for the continued use or adaptive reuse of a building.
- If a new roof component is required, it should be compatible in scale, style, and material to the overall building or similar buildings in age and type, but contemporary in design so as not to create a false sense of history.
- Prominent new design features, such as skylights or dormers, should be constructed at a secondary side of the roof, not readily visible from the public right-of-way. They should fit within the roof plane and match the profile and style of the roof.
- New utility features, such as satellite dishes, HVAC systems, or antennas, should be constructed at a secondary side of the roof, not readily visible from the public right-of-way and attached at the lowest level of the roof possible.
- Retention and reuse of any remaining original fabric is encouraged.

RELEVANT SOURCES

National Park Service Preservation Brief 4: Roofing for Historic Buildings

National Park Service Preservation Brief 19: The Repair and Replacement of Historic Wood Shingle Roofs

National Park Service Preservation Brief 29: The Repair, Replacement and Maintenance of Historic Slate Roofs

National Park Service Preservation Brief 30: The Preservation and Repair of Historic Clay Tile Roofs

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Foundations

Treatment Guidelines

This section addresses the treatment of historic visible foundation walls, which contribute to the architectural character of many buildings in Redlands. Foundations are the basis for a building's structure, separating the lower façade from the ground and framing the building against it. Foundation walls are typically constructed of stone, brick, or concrete and measure 1-3 feet from the ground. They may be flush, proud, or recessed in relation to the façade, and they may feature windows or vents. The form, materials, profiles, color, and features of a foundation wall help to convey the style and development period of a building. Thus, proper treatment of historic foundations is important to preserving the character and integrity of historic buildings in Redlands.

Arroyo stone foundations are an important architectural feature of many historic houses in Redlands and should be preserved.

Routine maintenance, such as cleaning and repointing, is important to prolong the life of a historic foundation.

Preserve

- A foundation is an important architectural feature that should be preserved.
- Preserve the original form, profile, materials, and details of a historic foundation.
- Avoid covering a historic foundation with new materials or painting a foundation that was originally unpainted.

Maintain

- Maintain a historic foundation to prolong its life and to maintain the building's structural capacity. Proper routine maintenance is important to the long-term preservation of a historic foundation, its material components, and the building it supports.
- Routine maintenance may include: cleaning by hand; low-pressure washing; repointing mortar joints at brick or stone foundations; scraping, priming, and repainting originally painted foundations; waterproofing; applying protective finishes; or other light treatments.
- Avoid planting too close to the foundation, as plants may cause drainage issues and/or structural damage.

Emergency Situations

Emergency situations, such as fire, flood, or earthquake, can pose serious risks of damage to or loss of historic buildings. In these situations, immediate intervention may be warranted - the owner should take all reasonable actions to preserve the property, recognizing that strict adherence to treatment guidelines may not be possible.

Foundations

Treatment Guidelines

Repair

- Repair a historic foundation when the physical condition of materials or features warrants additional work.
- Repair work may include: chemical cleaning, high-pressure washing, patching, or other treatments. Seek the gentlest repair solution possible.
- Repair work may include the limited, in-kind replacement of extensively deteriorated or missing materials or components.
- All repair work should be compatible with an existing historic foundation in form, profile, materials, and details.

A cast stone foundation that is in need of repair.

Replace

- Replace a historic foundation only when it is deteriorated beyond repair.
- A replacement foundation should match an existing historic foundation in form, profile, height, materials, and details.
- Use of alternative compatible materials may be appropriate if the historic building materials are not available, infeasible, or against building code standards.

Restore

- Restore a historic foundation that is missing or altered.
- Restoration may include the replacement of a missing foundation based on physical historic documentation, to match the form, materials, profiles, and details as closely as possible.

Historic Additions

Treatment Guidelines

This section addresses the treatment of historic additions to buildings in Redlands. Additions that were constructed very early in a building's history, such as a kitchen or sunroom added or enclosed from a porch, tell the story of the building's development, and may be significant features in their own right. Unifying the architectural features or details on a historic addition to match the original building may convey a false sense of history or change the style of the historic addition. Similar to the main building, proper treatment of a historic addition is important to preserving the character and integrity of historic resources in Redlands.

Existing additions that were constructed in the recent past and are not compatible with the historic character of the building, or have altered or obscured character-defining features, should be removed, if possible, without damaging the historic building. For information regarding new additions, refer to Ch. 5 - Guidelines for New Additions.

This porch addition tells the story of the building's development over time and should be preserved.

Preserve

- A historic addition is an important architectural feature that should be preserved.
- Preserve the historic location, design, massing, form, materials, features, and details of the historic addition.
- Avoid demolishing a historic addition that was constructed during the property's period of significance.
- Avoid unifying the historic addition with the design of the primary building, as this would convey a false sense of history.

Maintain

- Maintain a historic addition to prolong its life and protect investments made in its construction and repair. Proper routine maintenance is important to the long-term preservation of a historic addition and its material components.

Repair

- Repair a historic addition when the physical condition of its components and decorative details warrants additional work.
- All repair work should match the materials and finishes of the existing historic architectural features and details as closely as possible.

Refer to Ch. 3 - Guidelines for the Preservation, Rehabilitation, and Restoration of Historic Exterior Building Materials for additional information regarding appropriate repair and maintenance of a historic addition's materials.

Historic Additions

Treatment Guidelines

Replace

- Replace a historic addition's architectural features and details only when materials are deteriorated beyond repair.
- Replacement architectural features and details should be replicated from existing historic features and details to match the material, size, pattern, texture, finish, and overall character.
- Use of alternative compatible materials may be appropriate on secondary façades, not readily visible from the public right-of-way.

Restore

- Restore a historic addition's architectural features and details that are missing or covered up.
- Restoration may include the replacement of completely missing historic architectural features or details, such as a door or window, based on physical or historic documentation, with the same materials or compatible substitutes.

Alterations to Additions

- It may be appropriate to construct new architectural features or details at a historic addition if its original components are missing and cannot be discovered from historic documentation, or if it is required for the continued use or adaptive reuse of a building.
- If a new feature is required, it should be compatible in scale, style, and material to the overall building or similar buildings in age and type, but contemporary in design so as not to create a false sense of history.
- New features should be constructed at secondary façades, not readily visible from the public right-of-way, if possible.
- Reuse of any remaining original fabric is encouraged.
- During alterations or new construction, precautions should be taken to protect the materials, features, and details of the remaining historic addition and adjacent historic buildings on the site.

Note: Additions/Demolitions are covered under Ch. 5 - Guidelines for New Additions.

A historic rear addition.

RELEVANT SOURCES

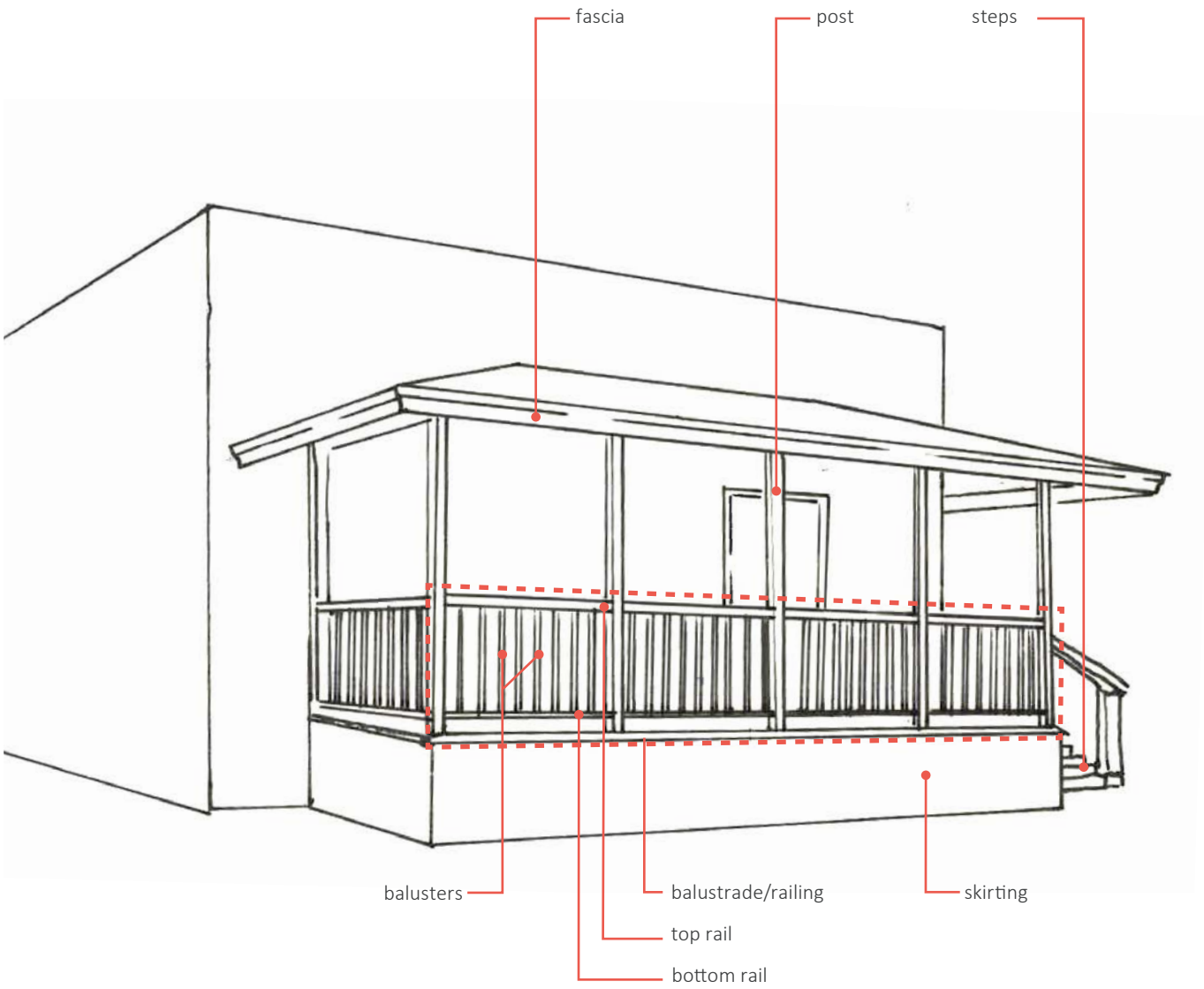
National Park Service Preservation Brief 14: New Exterior Additions to Historic Buildings: Preservation Concerns

Residential - Porches

Historic Porch Components

This section addresses the treatment of porches and the variety of porch types that exist in Redlands. Porches are prominent residential architectural features that project from the front, side, or rear of a building and help frame the primary façade(s) and main entrance. For the purposes of this document, the term "porch" includes stoops, patios, porticos, and entrance courtyards as well as partial-width and full-width porches. Porches provide weather protection, privacy, architectural definition, and separation between the street and residence. Their design, materials, scale, and details help convey the style and development period of a building, although these elements may vary widely between different architectural styles. Proper treatment of historic porches and their components is important to preserving the character and integrity of historic buildings in Redlands.

Porch Components:



Residential - Porches

Treatment Guidelines

Preserve

- A historic porch is an important feature of residential architecture that should be preserved.
- Preserve the location, design, massing, form, and decorative features of a historic porch.
- Preserve a historic porch's materials (i.e. wood, metal, masonry) and components, including its roof, decking, supports, balustrade, steps, and skirting.
- Avoid enclosing or removing a historic porch, particularly if the porch is on a primary façade and serves as a primary entrance.
- Avoid removing a historic porch enclosure; for example, a screened sleeping porch is a character-defining feature.

A porch is an important feature of historic residential architecture that should be preserved.

Maintain

- Maintain a historic porch to prolong its life and protect investments made in its construction and repair. Proper routing maintenance is important to the long-term preservation of a historic porch and its components.
- Maintain the historic path of egress (i.e. steps, stairs, walkway) to the porch.

Preserve the location, massing, form, materials, and decorative features of a historic porch.

Repair

- Repair a historic porch when the physical condition warrants additional work.
- Repair work may include the limited replacement of extensively deteriorated or missing porch components (i.e. wood decking, balusters, brackets) with in-kind or compatible substitute materials.
- All repair work should be compatible with existing historic porch components in design, scale, material, and finish.

Replace

- Replace a historic porch and/or porch components only when deteriorated beyond repair.
- Replacement architectural features and details should match existing historic features and details in location, design, massing, form, and materials as closely as possible.

Residential - Porches

Treatment Guidelines

Restore non-historic porch components, such as these piers supporting original porch columns, to their original condition.

Avoid enclosing a historic porch at the primary entrance to the building.

RELEVANT SOURCES

National Park Service Preservation Brief 45: Preserving Historic Wood Porches

Replace

- Use of alternative compatible materials may be appropriate at historic porches located at the rear or secondary façades, not readily visible from the public right-of-way.

Refer to the "Architectural Features and Details" section of this chapter and Ch. 3 - Guidelines for the Preservation, Rehabilitation, and Restoration of Historic Exterior Building Materials for additional information regarding appropriate replacement of a historic porch.

Restore

- Restore non-historic porch components and decorative features to their original condition.
- Restoration may include the replacement of completely missing historic architectural features or details, such as stairs or railing, based on physical or historic documentation, with the same materials or compatible substitutes.
- Avoid adding conjectural features that may create a false sense of history.

Alterations and Additions

- It may be appropriate to alter, enclose, or construct a new porch if it is required for the continued use or adaptive reuse of a building.
- The new or altered porch should be installed at a secondary façade in a manner that preserves the historic character of the building.
- The new or altered porch should be compatible in scale, style, and material to the building and any existing historic porches, but contemporary in design so as not to create a false sense of history.
- A new porch should be smaller in footprint and set back from the edges of the façade or existing historic porch to establish a subordinate relationship.
- A new porch enclosure should be installed behind the predominant porch structure (i.e. post, railings).

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Residential - Ancillary Structures

Treatment Guidelines

This section addresses the treatment of historic ancillary structures. In Redlands, ancillary structures typically include garages, carriage houses, porte-cochères, or storage sheds. These structures may be attached to the main building or located at the side or rear of the property. They may have been part of the building's original construction or added at an early date. Their design typically relates to the main building in style, form, material, and finish, although the design of an ancillary structure is usually simple in comparison to the main building. Similar to the main building, proper treatment of historic ancillary structures is important to preserving the character and integrity of historic resources in Redlands. However, due to their secondary, subordinate nature, there is greater flexibility in their treatment.

This porte-cochère is a historic ancillary structure that should be preserved.

Routine maintenance, such as painting, is important to the preservation of a historic ancillary structure.

Preserve

- A historic ancillary structure is an important residential architectural components worthy of preservation.
- Preserve the location, design, massing, form, materials, and details of a historic ancillary structure.
- Avoid demolishing a historic ancillary structure, as its existence helps to convey the primary building's history.

Maintain

- Maintain a historic ancillary structure to prolong its life and protect investments made in its construction and repair. Proper routine maintenance is important to the long-term preservation of a historic ancillary structure and its components.
- Maintain a historic ancillary structure's relationship and connection (i.e. path of egress) to the primary building.

Repair

- Repair a historic ancillary structure when the physical condition warrants additional work.
- All repair work should match the materials and finishes of the existing historic architectural features and details as closely as possible.

Refer to Ch. 3 - Guidelines for the Preservation, Rehabilitation, and Restoration of Historic Exterior Building Materials for additional information regarding appropriate maintenance and repair of a historic ancillary structure's materials.

Residential - Ancillary Structures

Treatment Guidelines

Replace

- Replace a historic ancillary structure's features and details only when materials are deteriorated beyond repair.
- Replacement architectural features and details should be replicated from existing historic features and details to match the material, size, pattern, texture, finish, and overall character.
- Use of alternative compatible materials may be appropriate at historic ancillary structures located at the rear or secondary façades, not readily visible from the public right-of-way.

Restore

- Restore non-historic components on an ancillary structure to their original condition.
- Restoration may include the replacement of completely missing historic architectural features or details, such as garage doors, based on physical or historic documentation, with the same materials or compatible substitutes.
- Avoid adding conjectural features that may create a false sense of history.

Restore a historic ancillary structure's missing components, such as historic garage doors or infilled openings.

Residential - Ancillary Structures

Treatment Guidelines

Avoid altering an ancillary structure in a way that obscures its historic character.

Alterations and Additions to Historic Ancillary Structures

- It may be appropriate to alter or construct new architectural features or details at a historic ancillary structure if its original components are missing and cannot be discovered from historic documentation, or if it is required for the continued use or adaptive reuse of a building.
- New features should be constructed at a secondary façade, not readily visible from the public right-of-way, if possible.
- If converting a garage for residential occupancy, consider fixing the existing garage door in place rather than enclosing/infilling at the exterior.
- It may be appropriate to expand, connect, or construct an addition at an ancillary structure if required for the continued use of the building. This solution is preferred to altering the main building when additional space is required.
- If an alteration or addition is required, it should be compatible in scale, style, and material to the overall building or similar buildings in age and type, but contemporary in design so as not to create a false sense of history.
- An addition should be constructed at the rear, side, basement, or upper level. It should be smaller in scale and footprint than the historic ancillary structure and set back from the primary façade far enough to establish a subordinate relationship. An addition's massing, roofline, materials, and design should be compatible with the existing buildings on the site.
- During alterations or construction of an addition, precautions should be taken to protect the materials, features, and details of the remaining historic structure.
- Demolition of a historic ancillary structure is only appropriate when it has been determined to be structurally unsound, deteriorated beyond repair, and a danger to life-safety.
- Leaving a physical reference of the historic ancillary structure is encouraged.
- An ancillary structure that was a constructed in the recent past and is not compatible with the historic character of the primary building should be removed, if possible, without damaging the historic building.
- During demolition, precautions should be taken to protect the materials, features, and details of attached historic buildings.

Residential - Ancillary Structures

Treatment Guidelines

New Ancillary Structures

- It may be appropriate to construct a new ancillary structure if required for the continued use of the building. This solution is preferred to altering the main building when additional space is required.
- If a new ancillary structure is required, it should be compatible in scale, massing, style, and material to the main building, but contemporary in design so as not to create a false sense of history.
- New ancillary structures should be constructed at the rear or side of the main building. It should be smaller in scale and footprint than the main building and set back and away from the primary façade far enough to establish a subordinate relationship.
- During new construction, precautions should be taken to protect the materials, features, and details of adjacent historic buildings.

Note: Additions/Demolitions are covered in Ch. 5 - Guidelines for New Additions and Ch. 8 - Guidelines for New Construction and Non-Contributing Buildings in Historic Districts.

A new ancillary structure should be located at the rear or side of the main historic building.

Residential - Miscellaneous Accessory Features

Treatment Guidelines

This section addresses the treatment of a variety of accessory features that are attached to a residential building. In Redlands, typical historic accessory features include light fixtures, mailboxes/mail doors, address numbers, original awnings and armature, vents and grilles. These historic features and fixtures embellish a building's style. Proper treatment of historic accessory features is important to preserving the character and integrity of historic resources in Redlands. However, due to their secondary, subordinate nature, there is greater flexibility in their treatment.

The clay tile awning on this house is an important historic accessory feature that should be preserved.

Preserve

- A historic accessory feature is an important residential architectural component worthy of preservation.
- Avoid removing a historic accessory feature, as it helps to convey the primary building's history.

Maintain

- Maintain a historic accessory feature's materials and details as part of the preservation of the overall historic character of the building.
- If replacing a light bulb, maintain the subtle lighting intensity that is historically appropriate.

Repair

- Repair a historic accessory feature when the physical condition of its materials and details warrants additional work.
- All repair work should match the materials and finishes of the existing historic accessory feature as closely as possible.

Refer to Ch. 3 - Guidelines for the Preservation, Rehabilitation, and Restoration of Historic Exterior Building Materials for additional information regarding appropriate maintenance and repair of a historic accessory's materials.

Replace

- Replace a historic accessory feature only when its materials are deteriorated beyond repair.
- Replacement accessory features should be compatible with the existing historic features in material, size, finish, and overall character.
- Use existing attachment holes for new features or fixtures where possible.

Residential - Miscellaneous Accessory Features

Treatment Guidelines

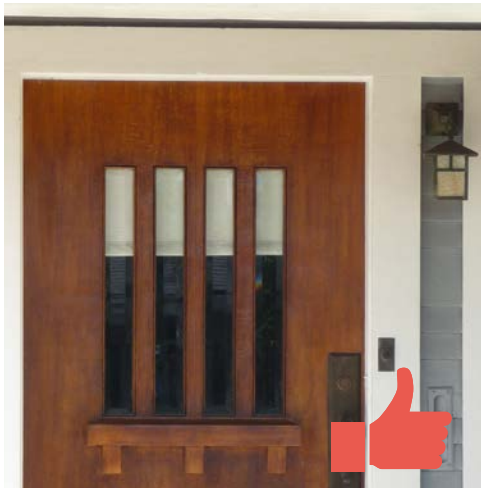
Restore

- Restore non-historic accessory features to their original condition.
- Restoration may include the replacement of a completely missing historic accessory feature, such as a light fixture or awning, based on physical or historic documentation, with a feature of the same design and material, or a compatible substitute.
- Avoid adding conjectural features that may create a false sense of history.

New Accessory Features

- It may be appropriate to install new accessory features if the original features are missing and cannot be discovered from historic documentation, or if it is required for the continued use or adaptive reuse of a building.
- New features should be compatible in scale, style, and material to the overall building in age and type, but contemporary in design so as not to create a false sense of history.
- If a new awning is required, it should be aligned with the window opening and installed directly above the window head. Awnings should be fixed or retractable at the ground floor and retractable at upper floors.
- The material and color should be appropriate to the style and period of the building, and the shape of the awning should match the shape of the fenestration opening.
- Avoid installing commercial style awnings, such as dome or box awnings, at a residential building.
- If a new light fixture or mailbox is required, it should be attached adjacent to the main entrance. Lighting conduit should be concealed.
- Residential signage should be limited to painted or dimensional address numbers. Dimensional address numbers should be attached with pins or with structural adhesive, above or adjacent to the main entrance.

These new valance and picket awnings are historically appropriate for a Spanish Colonial Revival style house.



A historically appropriate new light fixture for a Craftsman house.

Commercial - Storefronts

Treatment Guidelines

This section addresses the treatment of storefronts in Redlands. Storefronts are commercial architectural features that are located at the first story of either a commercial or mixed-use building. In Redlands, storefronts include retail shops, restaurants, bars, and offices. Historic storefronts are typically composed of a recessed entrance with single or double doors; large, framed display windows (sometimes in canted bays); bulkheads; and transoms all set within the structural piers of the building. Some retain decorative terrazzo or tile flooring at the entrance. In two-story commercial buildings, a horizontal detail (belt course, cornice, or spandrel) typically divides the ground floor from the upper level. A storefront's design, materials, scale, proportions, profiles, and details help convey the style, use, and development period of a building; however, these elements may vary widely between different architectural styles. Proper treatment of historic storefronts and appropriate design for new storefronts are important to preserving the character and integrity of historic buildings in Redlands.

This intact historic storefront is a commercial architectural feature that should be preserved.

Preserve a historic storefront's relationship to the public right-of-way.

Preserve

- A historic storefront is an important commercial architectural feature that should be preserved.
- Preserve the location, design, scale, proportion, profile, materials, and details of a historic storefront.
- Preserve a historic storefront's connection and relationship to the public right-of-way.
- Avoid infilling and/or altering the size and shape of a historic storefront.
- Avoid removing remnants of earlier storefront designs to unify the appearance of a historic storefront, as this detracts from the physical narrative of the storefront's development.

Maintain

- Maintain a historic storefront to prolong its life and protect investments made in its construction and repair. Proper routine maintenance is important to the long-term preservation of a historic storefront and its components.

Repair

- Repair a historic storefront when the physical condition of its features and materials warrants additional work.
- All repair work should match the materials and finishes of the existing historic storefront as closely as possible.

Refer to Ch. 3 - Guidelines for the Preservation, Rehabilitation, and Restoration of Historic Exterior Building Materials for additional information regarding appropriate maintenance and repair of a storefront's materials.

Commercial - Storefronts

Treatment Guidelines

Replace

- Replace a historic storefront's architectural features and details only when materials are deteriorated beyond repair.
- Replacement storefront features and details should be replicated from existing historic features and details to match the overall design, scale, and proportions of the historic storefront.
- In general, replacement storefront features should be made of the same materials as the historic. For example, use of wood or metal doors and display windows, as appropriate to the historic building.
- Clear glazing should be replaced with clear glazing, and tinted glazing with tinted glazing, with transparency matching that of the historic glass. Consider replacing clear glass with clear low-e glazing.

Refer to the "Energy Conservation and Environmental Sustainability" section of Ch. 4 - Systems, Accessibility, and Sustainability for more information about energy improvements to historic glazing.

- Use of alternative compatible materials may be appropriate if designed to closely match the historic.

A contemporary storefront with traditional features.

Restore

- Restore a historic storefront's features and details that are missing or covered up.
- Restoration may include the replacement of completely missing storefront features or details, such as a bulkhead or transoms, based on physical or historic documentation, with the same materials or compatible substitutes.

RELEVANT SOURCES

National Park Service Preservation Brief 11: Rehabilitating Historic Storefronts

Commercial - Storefronts

Treatment Guidelines

An example of a compatible contemporary storefront.

Alterations and Additions

- It may be appropriate to introduce a new storefront or components if the originals are missing and cannot be discovered from historic documentation, or if it is required for the continued use or adaptive reuse of a building.
- If a new storefront is required, it should be compatible in scale, style, and material to the historic building, but contemporary in design so as not to create a false sense of history.
- A new storefront should be installed within the structural piers of the building and maintain the size of the original opening.
- A new storefront should be composed of typical historic storefront features, including a bulkhead, display windows, transoms or a clerestory, recessed or covered entrance, and a sign band.
- Reuse of any remaining original fabric is encouraged.

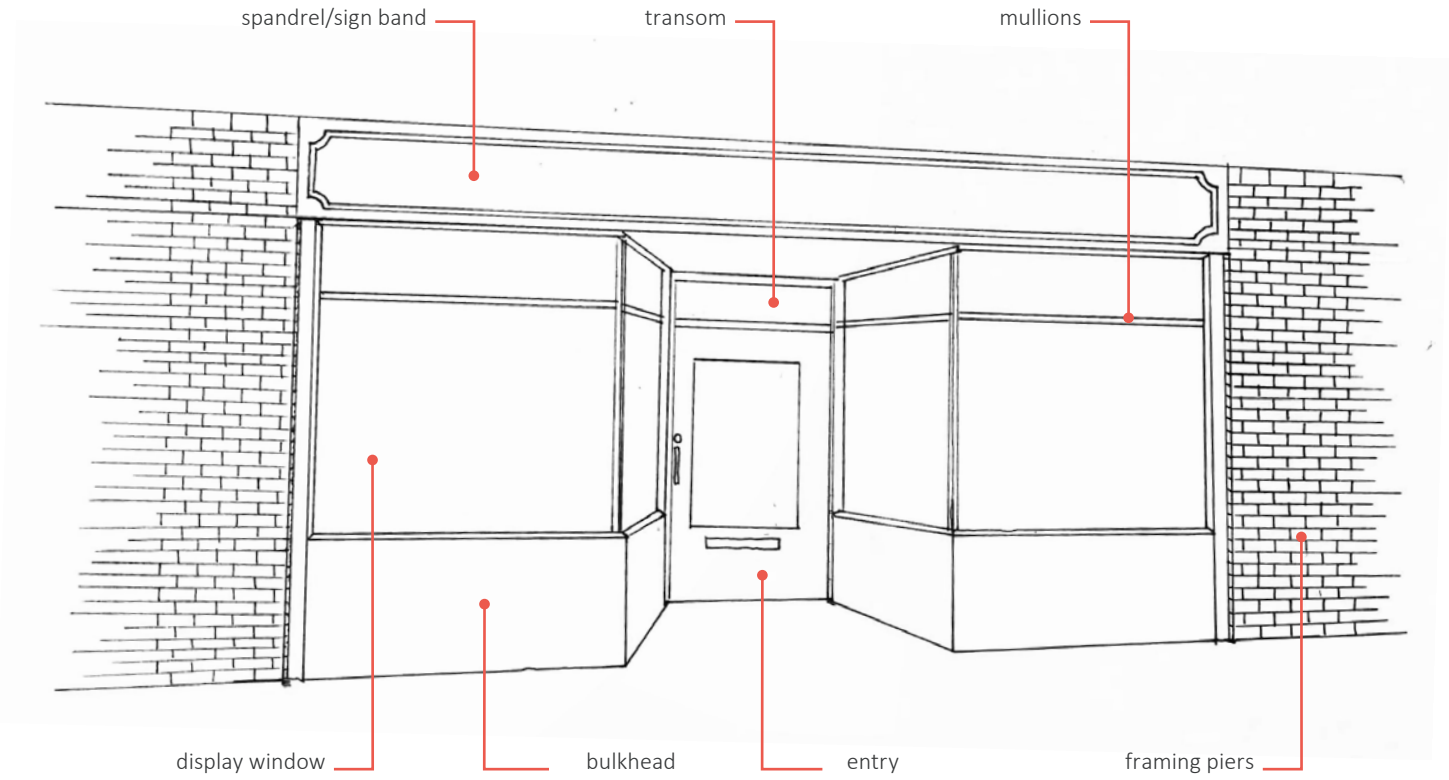
Mid-Century Modern Storefronts

Mid-Century Modern storefront on State Street.

Redlands has numerous storefronts dating to the post-World War II period, many of which reflect the Mid-Century Modern style. These storefronts often reference more traditional storefronts, with recessed entries, display windows, and bulkheads, and many of the design guidelines above apply to Mid-Century Modern storefronts too. Additional differentiating characteristics of these postwar commercial resources can include asymmetrical bays within masonry or metal-clad piers; angled storefronts; large aluminum-framed plate glass windows; cantilevered canopies; and expressive signage.

Commercial - Storefront

Traditional Storefront Components

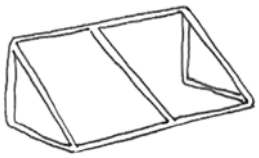


Commercial - Awnings & Canopies

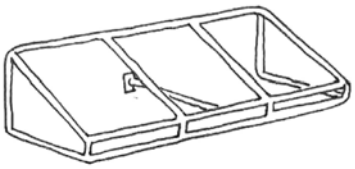
Commercial Awning Types

This section addresses the treatment of commercial awnings and canopies in Redlands. Awnings and canopies are typical accessory features of Redlands' commercial buildings. Installed above the first and/or second floor of the storefront or office, they serve to mark and shelter the entrance and display windows, as well as act as a means of advertisement. Historic awnings are typically composed of a solid or striped canvas covering attached to a wood or metal frame. Historic awnings project over the sidewalk at an angle in a triangular or circular form, depending on the shape of the window opening. Early awnings were fixed or retractable, while later awnings were rolled. Historic canopies are typically wood or metal box-like structures supported by wood or metal frames. They are either cantilevered over the sidewalk, or may have additional support in the form of iron chains, rods, or brackets. Signage may be painted or applied on the front of the awning skirt or canopy signboard. The location, operation, materials, proportions, color, and details of awnings and canopies help convey the style, use, and development period of a building. Proper treatment of historic awnings and canopies and appropriate design for new awnings and canopies are important to preserving the character and integrity of historic buildings in Redlands.

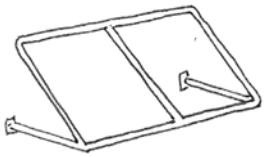
The following illustrate some commercial awning types found in Redlands:



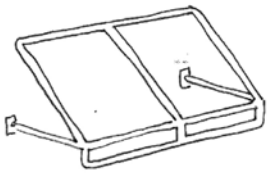
traditional



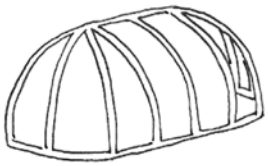
awning with rigid valence



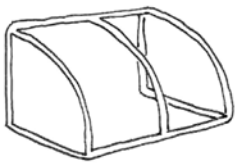
lean-to



lean-to with rigid valence



elongated dome



convex

Commercial - Awnings & Canopies

Treatment Guidelines

Preserve

- A historic awning or canopy is an important commercial architectural feature that should be preserved.
- Preserve a historic awning's location, design, dimensions, proportions, materials, and details as part of the preservation of the overall historic character of the building.
- Avoid removing remnants of an earlier awning or canopy, such as an awning pocket, as this detracts from the physical narrative of the commercial building's development.

Maintain

- Maintain a historic awning or canopy to prolong its life and protect investments made in its construction and repair. Proper routine maintenance is important to the long-term preservation of a historic awning and its components.
- Routine maintenance may include cleaning by hand; patching fabric; securing, polishing or lubricating framing or armatures; or other light treatments.
- Maintenance may include removing or retracting an awning covering seasonally or during inclement weather.

Repair

- Repair a historic awning or canopy when the physical condition of its features or materials warrants additional work.
- Repair work may include recovering with in-kind materials or repainting signage treatments.
- All repair work should be appropriate to the materials and finishes of the existing historic awning or canopy.

Example of a traditional, triangular-shaped awning, typical of a historic building.

Routine maintenance will help prolong the life of this historic canopy.

Commercial - Awnings & Canopies

Treatment Guidelines

Restore a historic canopy that has been removed or changed to an incompatible style.

Replace

- Replace a historic awning or canopy only when materials are deteriorate beyond repair.
- A replacement awning or canopy should match an existing historic awning in location, operation, materials, proportions, color, and details.
- Use of alternative compatible materials may be appropriate if designed to closely match the historic.

Refer to Ch. 3 - Guidelines for the Preservation, Rehabilitation, and Restoration of Historic Exterior Building Materials for additional information regarding appropriate maintenance and repair of an awning or canopy's materials.

Restore

- Restore a historic awning, awning pocket, or canopy that has been removed or changed to an incompatible style.
- Restoration may include the replacement of a completely missing awning or canopy, based on physical or historic documentation, with the same materials or compatible substitutes.

Commercial - Awnings & Canopies

Treatment Guidelines

Alterations and Additions

- It may be appropriate to introduce a new awning or canopy if it is required for the continued use or adaptive reuse of a building.
- If a new awning or canopy is required, it should be aligned with the storefront bays and installed above the top of the entrance, windows, and transoms, and below the sign band or cornice.
- The shape of the awning or canopy should match the shape of the opening. For example, shed awnings with open or closed sides are appropriate at rectangular openings, and circular or dome awnings are appropriate at arched openings.
- The operation of the awning or canopy should be fixed or retractable at the ground floor and retractable at upper floors. The material and color should be appropriate to the style and period of the building, and the component parts should be proportionate to one another.
- Reuse of any remaining original awning or canopy components, such as reuse of an awning pocket for a retractable awning, is encouraged.

An example of historically appropriate commercial awnings.

An example of a compatible contemporary awning on a historic building.

RELEVANT SOURCES

National Park Service Preservation Brief 11: Rehabilitating Historic Storefronts

Commercial - Signage

Treatment Guidelines

This section addresses the treatment of signage in Redlands. Signage is another typical accessory feature of Redlands' historic commercial buildings. Signs were historically used as a means of identification or advertisement, and historic signs often contribute to a building's identity. In Redlands, historic signage may include letters, numbers, logos, or figures/symbols. They may be painted, applied, or mounted to sign bands, windows, doors, transoms, awnings, on the side of a building wall, canopies, or plaques. Projecting blade signs may be attached adjacent to an entrance, and freestanding pole or board yard signs are present at some larger properties. The type, location, size, proportions, mounting method, material, and finish of historic signage help convey the style, use, and development period of a building. However, due to the transitory nature of commercial signage and the need to accommodate new signage as ownership or marketing identity change, few historic signs survive. Proper treatment of historic signage and appropriate design for new signage are important to preserving the character and integrity of historic buildings in Redlands.

A historic sign, such as this theater marquee, is an important architectural feature that should be preserved.

Preserve

- A historic sign is an important commercial architectural feature and it should be preserved.
- Preserve a historic sign's location, design, dimensions, proportions, materials, and details as part of the preservation of the overall historic character of the building.
- Avoid covering or removing vestiges of a historic sign that tell the history of the building.

Maintain

- Maintain a historic sign to prolong its life and protect investments made in its construction and repair. Proper routine maintenance is important to the long-term preservation of a historic sign and its components.

Repair

- Repair or replace a historic sign when the physical condition of its features or materials warrants additional work.
- All repair work should be appropriate to the materials and finishes of the existing historic sign.

Replace

- Replace a historic sign only when materials are deteriorated beyond repair.
- A replacement sign should be replicated from an existing historic to match location, materials, proportions, color, and details.
- Wood, metal, enameled, and plastic are appropriate materials for historic signage, depending on the sign's design, age, and type.

Commercial - Signage

Treatment Guidelines

Restore

- Restore a historic sign that has been removed or altered.
- Restoration may include the replacement of a completely missing sign, based on physical or historic documentation, with the same materials or compatible substitutes.

Restore a missing historic sign, such as this painted sign, based on historic documentation.

Alterations and Additions

- It may often be appropriate to introduce a new sign or signage as required for the continued use or adaptive reuse of a building.
- If a new sign is required, matching the style and location of historic signage is encouraged.
- New signage should be historically appropriate in quantity, type, placement, size, proportions, material, and finish.
- New signage should not detract from, damage, or obscure historic building fabric or transparency.
- New signage on glazing should be painted or decal.
- Applied dimensional letters and plaques should be attached with pins at mortar joints or with structural adhesive at the piers adjacent to an entrance or at the spandrel or sign band.
- Yard signs should be located near a driveway or sidewalk entrance, and consolidate tenants' names to one unified sign board.
- Bracket or blade signs should be limited to one per tenant and be located adjacent to an entrance.
- Conduit for illuminated signage should be concealed.
- Reuse of any remaining signage components, such as bracket or mounting holes, is encouraged.

See Redlands Sign Code for zoning rules on maximum allowable sign area, height, and permitted types.

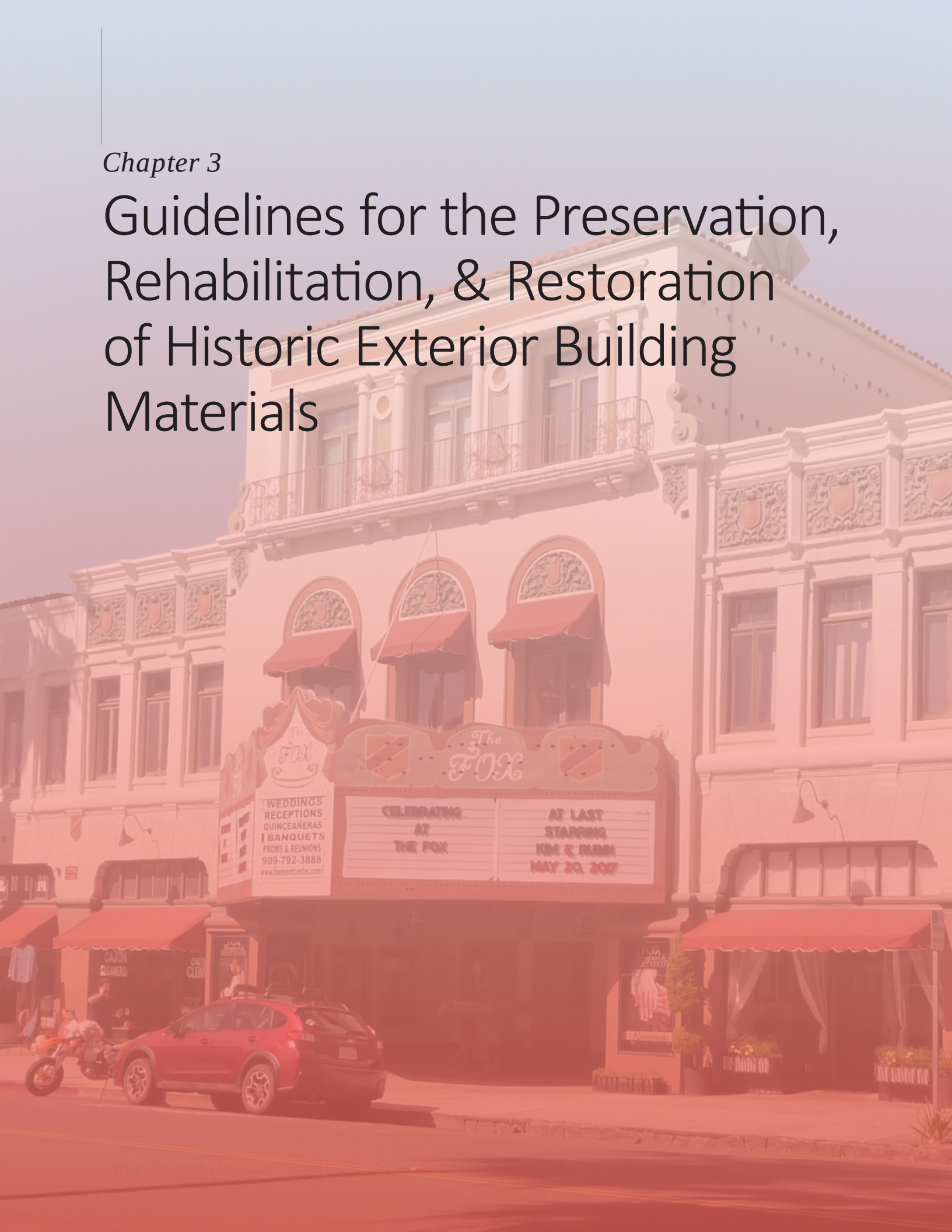
Example of compatible wall-mounted sign.

RELEVANT SOURCES

National Park Service Preservation Brief 25: The Preservation of Historic Signs

Chapter 3

Guidelines for the Preservation, Rehabilitation, & Restoration of Historic Exterior Building Materials



Chapter Overview

This chapter contains broad guidelines for the treatment of historic exterior building materials: masonry, stucco, woodwork, roofing, and metal. It also addresses the treatment of historic windows and doors, which combine multiple materials including wood, glass, and metal. More detailed material-specific recommendations are found in Appendix C - Material Inspection Checklists.

Use This Chapter If...

- You own a historic property and its building materials have deteriorated and are in need of repair or replacement.
- You are undertaking a restoration of your historic building to bring it back to its former glory.
- You are interested in replacing some of your building's historic materials in a way that is compatible with the building's historic character.

What's Inside...

General Treatment Guidelines
Exterior Masonry
- Types and Components
- Typical Problems
- Maintenance and Repair

Stucco
- Types and Components
- Typical Problems
- Maintenance and Repair

Exterior Woodwork
- Types and Components
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- Exterior Paints and Stains
  - Typical Paint and Stain Problems
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Roofing
- Types and Components
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  - Terra Cotta Tile
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  - Flat Roofs (Various Materials)
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- Maintenance and Repair

Windows and Doors
- Types and Components
- Typical Problems
- Maintenance and Repair

Metalwork
- Types and Components

Historic Building Materials

General Treatment Guidelines

This section addresses the treatment of historic building materials, including wall cladding and roof material at the exterior of a building and materials used in architectural trim. In Redlands, masonry (i.e. stone, brick, concrete/ cast stone, terra cotta, adobe), stucco, wood, roofing, and metal are common materials used in historic residential, commercial, industrial, and institutional architecture. Windows and doors with wood, glass, and metal components are also ubiquitous, and present their own challenges. The use of these materials, individually or in combination, in addition to their scale, texture, tooling, and finish, help to convey the style, craftsmanship, and development period of a building. Proper treatment of these materials is important to preserving the character and integrity of Redlands' historic buildings.

Preserve

- Preserve historic building materials that contribute to the overall historic character of the building.
- Retain historic materials that are in good condition, rather than replacing.
- Avoid covering historic materials with new materials.
- Prioritize the preservation of rare and unique building materials such as adobe or arroyo stone.
- When non-intervention best serves to promote the preservation of the cultural property, it may be appropriate to recommend that no treatment be performed.

Maintain

- Maintain historic materials to prolong their life and protect investments made in their construction and repair. Preventive conservation,(proper routine maintenance) is the most effective way to promote the long-term preservation of historic materials and of historic properties in general.
- Maintenance may include: cleaning by hand; low-pressure washing; caulking; scraping and repointing joints; scraping, priming, and repainting; polishing; applying protective finishes; or other light treatments.

Maintain or Repair?

In general terms, the items listed under Maintain are typically minor work; most may be completed by a non-professional, though if your building is designated, please consult with Planning staff for guidance. The items listed under Repair are typically work that should be conducted by a professional, and for designated buildings, requires Planning staff review. Always seek the gentlest maintenance and repair solutions possible. Consult with a professional conservator as needed.

Historic Building Materials

General Treatment Guidelines

Repair

- Repair historic materials when the physical condition warrants additional work.
- Repair work may include chemical cleaning or high-pressure washing, patching, splicing, consolidating, chemical paint stripping, scraping and repointing joints or other treatments, in order to repair and stabilize the historic materials.
- All repairs should be carried out to match existing historic materials in texture, composition, size, durability, appearance and overall character. Where possible, reversible treatments and methods are preferred.

Replace

- Replace historic materials only when they are deteriorated beyond repair.
- Replacement materials should match the existing historic materials in kind, including the texture, composition, size, durability, appearance, and overall character.
- Use of alternative compatible materials may be appropriate on secondary façades, not readily visible from the public right-of-way.
- During installation, match the grain, joints, orientation, and attachment method of the existing materials.

Investigation

Simple scientific investigations can ensure accuracy and appropriateness when it comes to replacing or restoring historic building materials. For example, a historic finishes analysis can determine the original paint color and recommend a match using modern paint, while stucco and mortar analysis can do the same for original mixes.

Health and Safety

Work in historic buildings may present potential hazards, such as lead paint, asbestos-containing materials, biological activity (mold or fungi). Some treatments may themselves involve the use of materials or methods -that could endanger the health and safety of workers and the public. Owners and professionals carrying out substantial work must comply with all relevant federal, state, and local standards and regulations (e.g. OSHA, NIOSH), and take the necessary steps to protect and mitigate risks to health and safety.

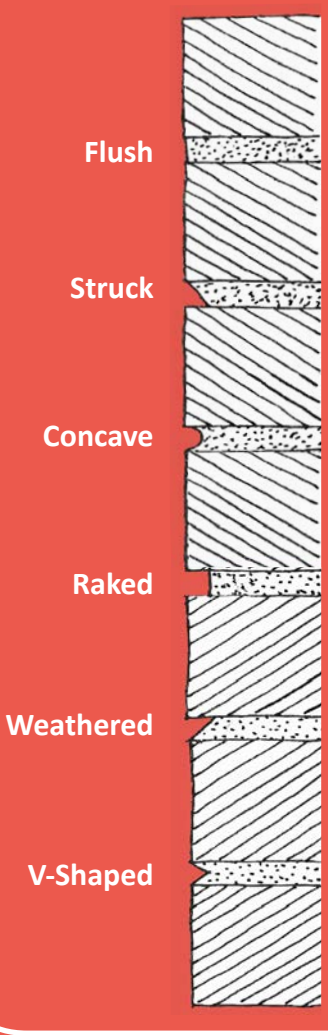
Exterior Masonry

Types & Components

Exterior masonry materials in Redlands include stone, brick, concrete (including cast stone, which is simulated stone made of concrete), terra cotta, and adobe. Masonry is commonly used for building walls or piers, or as architectural details and accent trim. Most buildings include some masonry, whether as a wall material, foundation element, or a chimney. Redlands is notable for its widespread use of local arroyo stone (natural rounded river rock), as well as cut and faced stone from both local and remote sources.

Typical Joint Profiles

There are numerous joint profile types, each producing different shadow lines and highlights. When repointing an area of exterior masonry, it is important to tool the mortar joint to match the existing joint profile for a consistent appearance.



Brick and Stone

Masonry walls and piers were traditionally constructed of either bricks or stones, stacked on top of each other, and bonded together with mortar. The construction type is load-bearing, meaning it carries its own weight to the ground, as well as the loads of other building elements, such as walls, floors and roofs. In more contemporary construction, the masonry became a non-load-bearing facing material, installed over other types of structural framing, such as wood studs.

Mortar

Mortar was traditionally composed of sand, lime, and water, and occasionally some additives. From the mid-19th century on, Portland cement was added to the mix to improve workability, hasten the setting time, and provide a more robust material. Most mortars in Redlands are likely Portland cement-based mixes.

Portland cement-based mortars are harder than traditional lime-based mortars and far less elastic. When cracks develop, or the mortar pulls away from the masonry, it leaves gaps for water to enter. Also, in some cases, the mortar is much stronger than the masonry it is bonding together, resulting in chipped edges and spalls on the masonry units. Selecting the proper mortar for repointing and repairs is important, for matching the historic appearance, long-term performance and preventing damage in the future.

Terra Cotta

Architectural terra cotta is a high-fired ceramic product, usually hollow cast in blocks and finished with a glaze. It was historically used primarily as an exterior decorative material, both for wall cladding and trim, and sometimes as part of a traditional load-bearing masonry wall (in modestly scaled buildings). Terra cotta is known for its elaborate molding, rich color, easy maintenance, and durability. When used as cladding or trim, terra cotta units are attached to wall framing systems with an extensive metal anchoring system.

Exterior Masonry

Types & Components

Adobe

Traditional adobe construction typically consists of adobe brick, molded from sand and clay, often with straw or grass as a binder, and sun-dried; stacked and "mortared" together with a similar mud mixture; and covered with a traditional mud render (plaster). In some cases, the mud render is also white-washed with lime. The mud and lime renders are the sacrificial material, and meant to be maintained and renewed after each rainy season. Over time, many of these traditional renders were replaced with cement-based stucco, which is much harder and less permeable than the adobe, causing deterioration of the mudbrick walls below.

Adobe house in Redlands.

Concrete and Cast Stone

Concrete is a mixture of fine aggregate (sand), coarse aggregate (gravel, crushed stone, or other coarse material), a binding agent (typically Portland cement since the early 1900s), and water. Concrete can either be cast in place, where it is poured, molded, and cured on site, or it can be precast off site. The introduction of reinforcement (metal bars/rods) in concrete in the mid- to late 19th century substantially increased the range, size, and types of buildings that could be constructed with the material. Concrete is extremely versatile, used for structural as well as ornamental purposes. Cast stone is a form of ornamental concrete or concrete veneer that is molded and sometimes pigmented to resemble a variety of natural building stones.

Damaged terra cotta detail.

Redlands' former City Hall (1941) features concrete cladding and details.

Stone house in Redlands.

Exterior Masonry

Typical Problems

Efflorescence on a historic brick wall.

Damage to masonry walls may be caused a number of ways, including the following:

- Ground movement from uneven settlement
- Ground movement from seismic activity
- Thermal movement (temperature cycling from hot to cold)
- Roof or floor movement, or shifting loads from other areas of the building
- Weathering from rain, wind or pollution
- Fire or flood damage
- Corrosion of embedded metal anchors or steel
- Salt damage (efflorescence)
- Poor drainage and rising damp
- Defective original materials or design
- Insufficient maintenance
- Poor previous repairs

Refer to Appendix C - Material Inspection Checklists for information regarding common masonry problems and recommended solutions.

Efflorescence

Efflorescence is water-soluble salts that have leached out of the masonry, evaporated, and deposited on the surface, usually as a white, powdery substance. The salt crystals expand as the water is evaporated, leading to surface damage, and in some cases, sub-surface damage (sub-florescence).

Inappropriate concrete repairs to cut stone curbing.

Exterior Masonry

Maintenance & Repair

Regular inspection and maintenance are key to keeping historic masonry intact and in good condition. Repairing damaged individual masonry units and repointing with an appropriate mortar mix will ensure survival of cladding, structural components, and trim. Regular cleaning is key– it goes a long way toward enhancing the character and overall appearance of a building. However, improper cleaning can be very damaging. The goal should be to remove surface soiling and staining using the gentlest means possible, and without damage to the masonry. Adobe should be treated differently than other masonry types.

For more detailed information on treating adobe and the other types of masonry, refer to Appendix C - Material Inspection Checklists.

- Inspect and maintain masonry regularly.
- Review for possible sources of moisture, and correct/ repair where possible to prevent efflorescence and cracking.
- Perform masonry repairs and repointing work prior to cleaning, to ensure building is water-tight.
- Repair individual masonry units as needed, by infilling cracks, pinning cracked units, patching, or resetting loose units with new mortar.
- Replace heavily damaged or missing individual masonry units with matching new or salvaged materials.
- Test cleaning products and methods first, in small inconspicuous areas.
- When using water cleaning, minimize water pressure to prevent surface damage (generally no more than 100 psi).
- When detergents are needed (for removal of stubborn or oily soiling), use a mild non-ionic detergent, such as a hand dishwashing detergent, diluted in water, and scrub with a natural bristle brush.
- Clean efflorescence from wall surfaces with low pressure water and a soft, natural bristle brush. A gentle detergent may also be added if needed.
- Where present, maintain existing paint coatings.

Matching Historic Mortar

Most pre-mixed mortar available from hardware stores is inappropriate for historic masonry. It is too hard, and contains too much cement. In general, you want to select a mortar with a lower compressive strength than the surrounding masonry (typically Type N or the slightly weaker Type O are used for historic masonry). Laboratory analysis of original mortar can tell you the ingredients (sand, lime, etc.) and the mix recipe (i.e. one part lime, six parts sand, etc.), the type of sand, and if any colorants or additives were used. This will provide the best match. However, a skilled mason can provide a good approximation, using the strength types suggested above, to provide a close match.

How Not to Clean Historic Masonry

Do not use abrasive blasting (sandblasting) or high pressurized water washing that can damage masonry surfaces.

Do not use metal brushes or grinders that can damage masonry surfaces.

Do not use harsh chemicals. Chemical cleaners can etch, stain, bleach or erode masonry surfaces.

Consult a professional with specialized knowledge of historic masonry cleaning when gentler cleaning methods are not successful.

Stucco

Types & Components

Stucco is commonly used on the exterior of many buildings in Redlands, in particular those in the Spanish Colonial Revival and Mediterranean Revival styles (though it is far from limited to those styles). The term stucco is generally used to describe a type of hard exterior plaster, traditionally a mixture of hydrated lime, water and sand, sometimes with additives to strengthen it. Most late 19th to early 20th century stuccoes included Portland cement for workability, fast curing, and durability, and most stuccoes in Redlands are likely Portland cement-based mixes.

Smooth stucco on a Spanish Colonial Revival house.

Textured stucco on a Redlands church.

Types of Stucco Finishes in Redlands

Stucco is typically trowel-applied, either directly onto a masonry wall, or with wood-framed structures, onto wood or metal lath support. It is applied in either a two- or three-part coating, consisting of a brown coat, scratch coat and finish coat. The finish coat can be textured a number of ways, depending on the aesthetic desired and the skill of the craftsman. Some common finishes include smooth, scored, raked, pebble-dashed, dry-dashed, fan and sponge, reticulated and vermiculated, roughcast (wet dash), and sgraffito. Stucco was often originally unfinished/unpainted; some were even integrally colored (pigmented). Today, stucco is most often painted with an elastomeric coating, which provides color and some water resistance.

Pre-Mixed and Synthetic Stucco

Pre-mixed stucco available from hardware stores is inappropriate for historic buildings. It is too hard, and contains too much cement – it will cause more problems than it solves.

Exterior Insulation and Finish System (EIFS) is a modern synthetic stucco system. It must be installed with control joints or grooves to allow for expansion and contraction, often resulting in odd wall patterns that do not match historic stucco. Also, it does not "breathe" and can trap moisture within the wall thickness, which can deteriorate historic wall materials, wood windows, etc. and encourage mold growth.

The City of Redlands discourages the use of pre-mixed stucco, EIFS, or similar synthetic stucco for use on historic buildings.

Stucco

Typical Problems

Damage to stucco walls may be caused a number of ways, including the following:

- Ground movement from uneven settlement
- Ground movement from seismic activity
- Thermal movement (temperature cycling from hot to cold)
- Roof or floor movement, or shifting loads from other areas of the building
- Weathering from rain or wind
- Fire or flood damage
- Corrosion of embedded metal anchors or steel
- Salt damage (efflorescence)
- Poor drainage and rising damp
- Poor original materials or design
- Poor previous repairs, including patching with non-matching stucco mix or synthetic stucco
- Lack of maintenance

Refer to Appendix C - Material Inspection Checklists for information on common stucco problems and recommended solutions.

Weathered stucco at a porch.

Incompatible stucco at an infilled door.

Void and spalling around stucco wall pipe intrusion.

Stucco

Maintenance & Repair

Matching Historic Stucco

The type of stucco finish on a historic building is integral to its appearance and character – a smooth stucco finish should not be replaced or covered with a heavily textured stucco finish.

- Refer to areas of the building likely to have original or early stucco, in particular in protected/ non-weathered locations. Select a compatible new stucco or stucco patching material.
- A skilled plasterer can provide a good approximation to the original stucco, and can provide a close match to the original. To ensure a match, consider a laboratory analysis that will provide the original ingredients, mix recipe, and sand type, and will tell you if any colorants or additives were used.
- There are some pre-bagged stucco products available from specialty suppliers. These may be a comparable product for your property; consult a professional for options. However, for a higher standard of care, we recommend matching the original stucco mix, color, and finish, including the traditional two- or three-coat application system.

RELEVANT SOURCES

National Park Service Preservation Brief 22: The Preservation and Repair of Historic Stucco

Regular inspection and maintenance are key to keeping historic stucco intact and in good condition. Performing minor repairs like filling cracks, patching spalled and missing areas, and maintaining existing paint (where present) will prevent major problems and prolong the life of stucco cladding. As with masonry, regular cleaning is key to maintaining historic stucco, but improper cleaning can be very damaging. The goal should be to remove surface soiling and staining using the gentlest means possible, and without damage to the stucco.

- Inspect and maintain stucco regularly.
- Review for possible sources of moisture, and correct/ repair where possible to prevent efflorescence and cracking.
- Perform repairs and prior to cleaning, to ensure building is water-tight.
- Repair as needed, by infilling cracks or patching spalls and damaged areas.
- Test cleaning products and methods first, in small inconspicuous areas.
- When using water cleaning, minimize water pressure to prevent surface damage (generally no more than 100 psi).
- When detergents are needed (for removal of stubborn or oily soiling), use a mild non-ionic detergent, such as a hand dishwashing detergent, diluted in water, and scrub with a natural bristle brush.
- Clean efflorescence from wall surfaces with low pressure water and a soft, natural bristle brush. A gentle detergent may also be added if needed.
- Where present, maintain existing paint coatings.

For more detailed information on treating historic stucco, refer to Appendix C - Material Inspection Checklists.

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Exterior Woodwork

Types & Components

Wood is used extensively in the architecture of Redlands, across a wide range of architectural styles. Its exterior applications include structural elements, wall cladding, and decorative trim (wood shingles and shakes are addressed in the Roofing Materials section). Exterior woodwork serves both a functional and aesthetic purpose, supporting and establishing a weather-tight enclosure, and acting as an important design feature. It is considered to be an important feature of historic buildings, and should be preserved. Paints and stains are crucial to the lifespan of woodwork, and are addressed in their own section below.

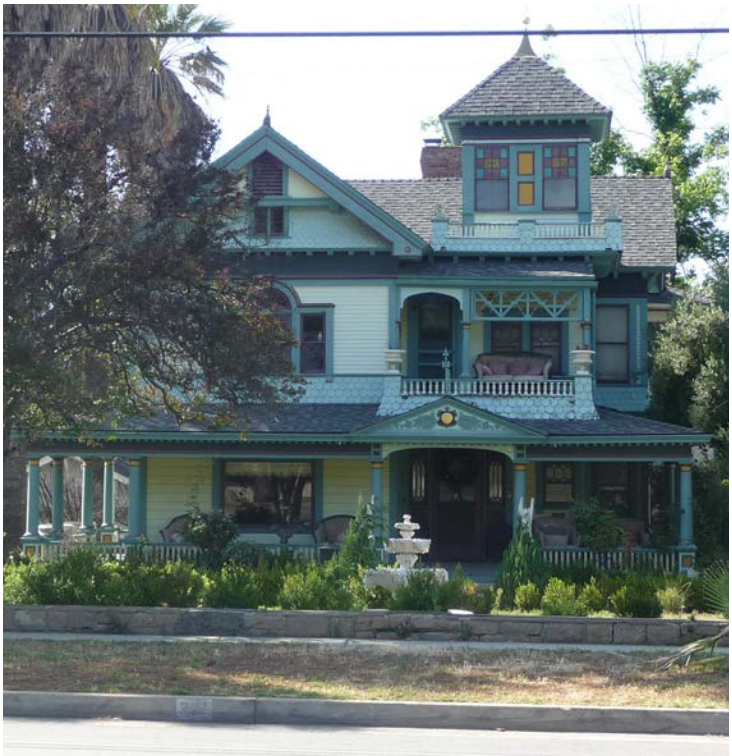
Wood shingle wall cladding.

Wood roof details on a Craftsman duplex.

Vertical board cladding on a ca. 1908 blacksmith shop.

Types of Exterior Woodwork in Redlands

Historically a widely available and relatively affordable building material, wood was key to the construction and ornamentation of most of Redlands' residential buildings during the late 19th and early 20th centuries. Builders also used it in commercial, industrial, and institutional buildings, though the City's preference for brick and other substantial masonry types resulted mostly in brick and stone non-residential buildings. Internal framing aside, wood is prominent on the exterior of many historic buildings in Redlands. Structural elements, such as half-timbering, columns, exposed rafters, and porch and entry components are highly visible. Wood is a common wall cladding material, ranging from clapboard siding to elaborate shingles, and is put to good use in decorative trim like corner boards, spindlework, railings, and moldings.



A Queen Anne style house with multiple types of wood cladding and decorative trim.

Exterior Woodwork

Typical Problems

Damage to exterior woodwork may be caused a number of ways, including the following:

- Weathering from cyclic wetting or drying, exposure to ultraviolet light, and erosion from wind-blown debris
- Structural overloading causing sagging, racking (skewing), or warping
- Mechanical damage
- Decay due to moisture infiltration or leaks, causing warping, stains, and peeling paint
- Decay due to fungal growth
- Decay due to insect attack – termites, carpenter ants, and various other wood-boring species
- Covering with synthetic siding
- Ground movement from uneven settlement
- Ground movement from seismic activity
- Fire or flood damage
- Poor original materials or design
- Poor previous repairs
- Lack of maintenance

Refer to Appendix C - Material Inspection Checklists for more information on common woodwork problems and recommended solutions.

Direct contact with the ground can lead to wood decay.

Poorly maintained wood cladding and trim.

Avoid covering or replacing wood siding with synthetic siding.

Deteriorated woodwork at a porch.

Exterior Woodwork

Maintenance & Repair

Decay-Resistant Wood

Some wood species are naturally more decay-resistant or have been treated in some manner during manufacture to increase their resistance, making them preferable for use as replacement material. These can include: cedar; mahogany; redwood; air-dried, pressure-treated southern yellow pine; new growth or salvaged cypress; and pressure treated wood (for framing members).

Alternatives for Trim and Siding

Wood trim and siding alternatives can include cellular PVC, wood waste composite material, fiber cement, asbestos, asphalt, steel, aluminum, and vinyl. When artificial siding is installed over original wood siding, it can cause damage by trapping moisture. Wood composite materials, such as MDF (medium density fiberboard composite, also called pressboard or hardboard) are prone to swelling, buckling, rotting, mildew, and insect damage.

The City of Redlands strongly recommends the removal of any artificial siding, particularly if installed over original wood siding.

If an economical alternative is needed, in particular for a new addition or outbuilding, a fiber-cement siding may be considered. It is visually more compatible with wood than other artificial materials.

In most instances, selective repair or replacement of damaged or deteriorated wood components, in conjunction with regular inspection and maintenance, is all that is required for exterior woodwork. In general, the simplest ways to control decay and insect damage are by keeping the materials dry.

- Inspect and maintain woodwork regularly.
- Review for possible sources of moisture, and correct/repair where possible. Provide drainage control elements, such as gutters and downspouts, to carry roof water away from the building.
- Fix any roof or plumbing leaks quickly, and take measures to dry out the materials.
- Redirect sprinkler heads or relocate them away from the building.
- Reduce dense vegetation around the building.
- Inspect the foundation and crawl space regularly, and clear away any accumulated debris or soil buildup from erosion.
- Apply borate-based wood preservatives to protect against decay and insect attack.
- Apply water repellents with mildewcide additives that will kill active fungi and guard against future growth.
- Maintain protective paint coatings.
- Consult with a qualified pest management company regarding insect issues.
- Conduct minor repairs (splitting and cracking) with a compatible exterior wood filler or wood epoxy consolidant, sand smooth and paint to match.
- Where replacement is necessary, use in-kind wood that matches the original in size, profile, and visual characteristics.

For more detailed information on treating historic woodwork, refer to Appendix C - Material Inspection Checklists.

Exterior Woodwork

Exterior Paints & Stains - Typical Problems

Exterior paints and stains provide a layer of protection to wood by adding a barrier that limits moisture infiltration, sun damage, and pests. They are typically composed of three elements: pigment(s), solvent(s), and a binder. In stains, the amount of pigment varies depending on opacity. Traditional paints and stains have a lower percentage of solvents and higher percentage of pigment compared to their modern counterparts. Whereas traditional coatings include natural, protein-based and plant-derived oil (i.e. linseed oil) paints, contemporary coatings use synthetic polymers, binders, or pigments, such as acrylic latex and alkyd oil. Modern coatings also contain additional chemicals that are intended to improve the workability, durability, resistance to mold, and drying speed of the paint or stain.

In general, oil-based coatings adhere better to wood surfaces than latex paint. Additionally, repeated layers of latex paint can form an impermeable barrier, preventing exterior wood from drying as it would have historically. Thus, the use of latex paints on historic wood exteriors should typically be avoided.

Typical Paint & Stain Problems

Common paint failure problems include:

- Weathering and deterioration due to sun exposure or improper application (for example, when the top coat dries before the underlying coat), causing chalking or fading; peeling, wrinkling, or blistering; cracking, crazing, or alligatoring; and areas of paint that are weathered away with bare wood showing.
- Damage due to moisture infiltration or leaks, causing blistering, cracking, or peeling

Refer to Appendix C - Material Inspection Checklists for more information on common paint and stain problems and recommended solutions.

RELEVANT SOURCES

National Park Service Preservation Brief 10: Exterior Paint Problems on Historic Woodwork

A brightly painted Victorian-era Vernacular cottage.

Weathered paint on exterior woodwork.

Paint samples from "The Master Painter's Partner" catalog, 1932.

Exterior Woodwork

Exterior Paints & Stains - Maintenance & Repair

Lead-Based Paint and Paint Removal Safety

Lead-based paint is a toxic material that was widely used on both exteriors and interiors of buildings well into the 1950's. Most historic buildings at least 50 years old will contain some lead-based paint. In its deteriorated form, it produces paint chips and lead-laden dust particles that are a known health hazard, particularly to children. In most cases, the lead-containing paint has been covered with newer paints, and any toxic materials are fully encapsulated and considered safe. However, during paint removal and surface preparation work, these earlier paint layers may be exposed. Consult a professional for potentially unsafe work, and follow these general guidelines when performing any paint removal work:

- Keep children and pets clear of work areas.
- Always wear safety goggles and a dust mask.
- Avoid open food or beverage containers in work areas.
- Thoroughly clean exposed skin, and thoroughly launder work clothes at the end of each day.
- Test painted wood in work areas first with lead test kits (obtained from hardware stores).

Exterior paints and stains should be inspected and renewed regularly (every five to eight years, with potential touch-ups at heavy wear areas during that time). This maintenance is crucial to the survival of exterior woodwork. When performing any repainting work, proper surface preparation is key to ensuring that the new paint will adhere and last. Surfaces should be clean, dry, and free of any loose dirt or peeled paint.

- Wash surfaces with a mild detergent solution and scrub with natural bristle brushes. Carefully hand-scrape to remove any old paint that is not tightly bonded to the surface, and hand-sand to smooth out any rough areas.
- Fill gaps, joints and holes over countersunk nails with putty or caulk.
- Use a high quality, exterior grade paint or stain; for staining, use a clear finish with some UV-resistance.
- Avoid encapsulating paints (for example "liquid siding") and clear waterproof coatings that can trap moisture in the wood and promote rot.
- Application methods and steps will vary, but in general, spot prime any bare wood areas first, followed by two coats of finish paint or stain.

For more detailed information on treating paints and stains on historic woodwork, refer to Appendix C - Material Inspection Checklists.

How Not to Prepare Surfaces for Repainting

The City of Redlands strongly recommends the following:

- Do not use strong, toxic chemical paint strippers, such as Jasco.
- Do not use open flame devices, such as torches, which can create sparks or fire, and will vaporize paint into highly toxic fumes.
- Do not sandblast, as it can be very damaging to the wood grain.
- Do not clean with high pressurized water, as it forces water into open joints, potentially causing leaks and damaging the framing and interior finishes.

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Roofing

Types & Components

Historic roof types and materials found in Redlands vary greatly depending on building type and architectural style. They include terra cotta (clay) tile, wood shakes and shingles, asphalt and composition shingles, metal roofs, and flat or membrane roofs. As a highly visible component of historic buildings, roofing material contributes to the overall appearance and character of a property and should be preserved. Roofing material obviously serves a purpose beyond aesthetics – namely, providing shelter and preventing water intrusion—and requires routine maintenance and, in many cases, periodic replacement to ensure the longevity of a building.

Clay tile (terra cotta) roofing on the Santa Fe Depot.

Wood shingle roofing on a Redlands Queen Anne house.

Composition shingle roofing.

Metal roof on a ca. 1906 warehouse building.

Roofing

Typical Problems

Maintaining the roof is key to keeping the building watertight, and avoiding potential interior damage from leaks. Traditional roofs achieve their weather-tightness mostly by overlapping elements such as shingles. The steeper the roof pitch, the less the length of overlap needed. Other roofs, such as flat membrane roofs or flat-seamed metal roofs, rely on the integrity of the roof material itself, and its proper installation, to remain watertight. Where roofs meet other elements, such as vertical walls, chimneys, or plumbing vents, they rely on flashings to redirect water or prevent water from entering critical joints. These are typical areas where leaks can occur.

We recommend inspecting your roof at least twice a year, and in particular after a heavy rainstorm. Keep an eye out for problem areas that may need repair, and clean out debris from drains or gutters. Consult a professional when needed. As typical roofing problems vary by material, they are grouped by material below.

Refer to Appendix C - Material Inspection Checklists for more information on typical roofing material problems and recommended solutions (grouped by roofing material).

Terra Cotta Tile

Terra cotta or clay tiles are one of the most distinctive and decorative roofs due to the variety of shapes, colors, profiles, patterns and textures available. They are typically used in the Spanish, Mediterranean, Mission, and Pueblo Revival styles. Clay tile has an exceedingly long lifespan (100 + years), but regular maintenance and repairs are necessary.

Common terra cotta tile problems include the following:

- Broken tiles
- Deteriorated fastening system (from weathering or improper installation)
- Manufacturing defects
- Water damage from deterioration or improper installation of underlayments and flashings

Concrete Tile

Concrete roofing tile was developed as a modern substitute for other roof materials, such as clay tile or wood shingles, and is increasingly common in Redlands in new construction and as a clay tile replacement material. Concrete tiles (including cement fiber composite) have a similar lifespan to clay tile, and have good fire-resistance and hail-resistance. Unfortunately, they are difficult to install correctly, prone to moisture problems, and tend to fade in color. The profile, color impermanence, and overall appearance make them inappropriate for use on historic buildings. The City of Redlands does not recommend the use of concrete tile on historic buildings.

RELEVANT SOURCES

National Park Service Preservation Brief 30: The Preservation and Repair of Historic Clay Tile Roofs

Roofing

Typical Problems

Biological growth on a wood shake roof.

Wood Shakes and Shingles

Wood shakes and shingles can be used for pitched roofs, as well as siding. Western red cedar, Alaskan yellow cedar, and redwood are the most common wood species used. The differences between shingles and shakes is based on wood grade and size. Shakes are often larger, thicker at the butt-end, and offered in many surface textures, including handsplit (split on face with sawn backs), straight or tapersplit (split on both sides), and tapersawn (sawn on both sides). Shingles are typically sawn on both faces, with thinner butt-ends (about 3/8- to ½-inch thick).

Common wood shake and shingle problems include the following:

- Loose or slipped shakes/shingles
- Missing shakes/shingles
- Splits through the wood
- Surface erosion
- Rust stains from corroded fasteners
- Moss or biological growth

Deteriorated asphalt shingle roofing on the former Harbert Residence (1907).

Asphalt and Composition Shingles

Composition shingles are very common in residential roofing, and many historic buildings originally had composition shingle roofs; it is also a common replacement material for buildings that originally had wood shingle/shake roofs, and even clay tile. Composition shingles are manufactured from various materials, such as asphalt, fiberglass, and recycled paper products. They are fire-resistant, and some are also resistant to mold growth and algae. Asphalt shingles are similar to composition but heavier in weight (due to larger asphalt content), and typically carry shorter warranties. Asphalt roofs can typically last up to 20 years; whereas composition roofs can last 30+ years, with good maintenance.

Common asphalt and composition shingle problems include the following:

- Loose or slipped shingles
- Missing shingles
- Surface erosion
- Damage from impact or weathering

Roofing

Typical Problems

Flat Roofs

Flat roofs are covered with a variety of materials, some of which date to the historic era and some of which do not; historic buildings with flat roofs typically have a parapet that conceals the rooftop, so materials tend to be utilitarian and do not contribute much, if anything, to the building's appearance. The most common types of historic flat roofs include: built-up roofs, consisting of hot-applied asphalt and covered with gravel or decorative ballast; modified bitumen roofs, consisting of a base sheet and cap sheet that are either hot-applied with asphalt, cold-applied with adhesive, torched-down, or self-adhesive (peel-and-stick) sheets; and rubber roofs, consisting of rubberized sheets that are either glued down or weighted down with decorative stone. A roofing professional can assist you with determining what type of roofing system you have, and provide information on the best ways to maintain or repair it.

Due to their flatness, these roofs generally rely on the integrity and installation of their membrane or coating to ensure the building remains watertight. In some cases, the system has 2 or even 3 layers overlapped, so there may be some redundancy for controlling leaks; whereas others are a single ply membrane only, and can be easily damaged. Depending on the system, flat roofs can last anywhere from 15-30 years, but should be replaced when the damage or deterioration exceeds 20% of the roof area.

Common flat roof problems include the following:

- Bubbles, blisters, or wrinkles in the membrane
- Cracking, tears, splits, and punctures
- Damaged or missing fasteners or plates
- Water ponding due to low spots or poor drainage
- Surface erosion
- Weathering of reflective paint or coatings
- Water intrusion

Roofing

Typical Problems

Corroded and warped corrugated metal roof.

Corrugated metal roof with open hole.

Exterior stone chimney.

Metal Roofs

Metal roofs can include various types including standing seam, flat seam, and corrugated or ribbed panels; they are most common on historic industrial buildings, but are sometimes seen on residential, commercial, and institutional properties as well. Standing seam roofs are used for pitched roofs. The edges of the metal sheets are crimped together, providing a watertight seam, and leaving the edges standing up to provide regular ridges down the roof slope. Flat seam roofs are used for very shallow or flat roofs. With these, the edges of the sheet metal are crimped together, but hammered flat to provide a watertight seam and flat walking surface. Prefabricated metal roof panels, such as corrugated roofing, are provided in larger sheets, and rely on sheet overlap and underlayment materials to provide watertightness.

Common metal roof problems include the following:

- Deterioration when protective painted or galvanized surfaces break down
- Corrosion from water intrusion and galvanic action (when dissimilar metals chemically react against each other)
- Inappropriate or improperly installed fasteners
- Slipping, buckling, or warping of metal sheets due to building movement (uneven settlement or seismic activity)
- Loosening and tearing of seams or edges
- Damage from impact or weathering

Chimneys

Chimneys are often a highly prominent feature of a historic building, designed to complement the architectural style. They are traditionally constructed of brick or stone masonry, and some styles feature stucco-covered chimneys. Due to their vertical height and exposure, along with exposure to heat, chimneys are prone to leaks and other problems, and should be regularly inspected and maintained. Consult a professional to assess the structural stability of your chimney.

Common chimney problems include the following:

- Falling or leaning due to seismic activity or structural problems
- Deterioration and damage due to water intrusion
- Deterioration and damage of component materials (brick, stone, stucco) as addressed above

Roofing

Typical Problems

Drains, Gutters and Downspouts

Roof drains, gutters, and downspouts are an equally important part of any roofing system, working to carry collected roof water away from the building, and often protecting and prolonging the life of the architectural materials. They are a regular maintenance concern for any property owner, but when properly inspected, cleaned, and maintained, they will work well into the future; twice-yearly inspection and cleaning is recommended.

Drains at flat roofs are most often "area drains", installed a low spots to collect surface water, which run through the building in concealed pipes. Some flat roofs may also have overflow scuppers (small openings in the parapet walls) as a backup in case drains become blocked. Gutters and downspouts typically drain and carry roof water to the ground along the outside of the building (although they can also be internal drains in the exterior walls, depending on the installation). These elements can vary in material and style. Some may be original to the building, or added later for water control. Depending on the style, gutters may be visible, and attached or hung from eaves; or they may be non-visible, built-into the eaves and concealed behind decorative cornicework. Downspouts may also be simple tubes or quite decorative with stamped sheet metal collection boxes (conductor heads) or decorative cast iron boots. Scuppered openings often have these conductor heads and downspouts as well.

Common problems with drains, gutters, and downspouts include:

- Clogging with leaves, trash, or other debris
- Loose or missing pieces
- Denting or crushing
- Open seams and broken welds
- Deterioration and corrosion due to weathering and moisture
- Water ponding or splashback at ground discharge area

Corroded downspout.

Drain with uneven grate panels.

Integral gutter at Santa Fe Depot.

Roofing

Typical Problems

Roof with multiple penetrations and flues.

HVAC equipment atop a commercial building.

RELEVANT SOURCES

National Park Service Preservation Brief 4: Roofing for Historic Buildings

Roof Appurtenances

Roofs can have any number of penetrations or equipment, such as vent stacks for plumbing, exhaust flues for cooking or mechanical equipment, air conditioning equipment, and solar panels. While some of these are historic, most are modern upgrades; nevertheless, they should be regularly inspected, maintained, and repaired to prevent problems with the overall roof system. For smaller penetrations and flues, these often are flashed into the roof system, or have some other type of integral flashing around them. Larger equipment, like solar panels and HVAC condensers are typically supported on their own framing or equipment curbs, which are attached to the roofs. For larger equipment, consult a roofing professional to ensure that the equipment is properly supported and attached to the structure, without damaging the roof.

Common problems with roof appurtenances include:

- Unstable attachments
- Loose or missing pieces
- Open seams and broken welds in integral flashing
- Deterioration and corrosion due to weathering and moisture

Solar panels on a composition shingle roof.

Roofing

Maintenance & Repair

Regardless of material type, roofing material should be regularly inspected (twice a year) and maintained. It is important to keep roofs and drainage systems dry and free of debris (like leaves, pine needles, and dirt). The recommended treatments below are broadly applicable to most roofing materials and roof types.

- Review for possible sources of moisture, and correct/repair where possible. Provide drainage control elements, such as gutters and downspouts, to carry roof water away from the building.
- Maintain underlayments and flashing
- Re-attach loose clay tiles, shingles, or shakes
- Treat wood shakes and shingles with biological growth inhibitors
- Replace individual clay tiles, shingles, shakes, or metal sheets where broken or missing; match existing in size, profile shape, and color
- When replacing large areas or a whole composition shingle roof, match existing shingles in size, shape, pattern, and color. Over-roofing (installing a new layer of shingles over existing) is not recommended due to added weight and installation issues.
- Patch damaged areas of flat or membrane roofs using compatible materials
- Clean, prepare, and repaint metal surfaces (with zinc-rich paint coatings for galvanized surfaces)
- Repair open or damaged seams and panels in metal roofs by re-soldering or patching
- Brace or reinforce chimneys
- Professional inspection, cleaning, and re-lining of chimney flues
- Seal or patch small voids or breaks in flashing or gutters with a bituminous paste (roofing tar) or sealant
- Repair damaged or open flashing or gutter seams by re-soldering, re-cleating, or riveting
- Use mesh screens on gutters and strainers on roof drains to catch larger debris
- Clean drainage system regularly, keeping free of debris
- Trim back overhanging tree limbs

For more detailed information on treating specific historic roofing materials, refer to Appendix C - Material Inspection Checklists.

Remove debris from roofs and gutters.

Reattach or replace loose or missing shingles.

Brace or reinforce chimneys.

Windows & Doors

Types & Components

Windows and doors present special issues when it comes to preservation because they often combine multiple material types in complex assemblies. Doors are often simpler than windows, with common examples including wood slab or paneled types without glazing. But glazed doors are also common in Redlands, ranging from paneled wood doors with partial glazing to wood French doors (narrow paired multi-light doors) to fully glazed aluminum doors. Windows by definition comprise multiple materials, with glass panes held in place by wood, steel, or metal components. Glazing variations can include stained, leaded, or diamond-paned glass.

Grouped multi-light wood windows at the Santa Fe Depot.

Door with arched opening, flanked by casement windows.

Picture window on a Tudor Revival house.

Types of Windows and Doors in Redlands

In Redlands, the most prevalent window types are single and multi-light double-hung windows; casement and fixed windows with multi-light configurations; aluminum sliding windows; bay windows; picture windows; and special windows (round, round-arch, pointed-arch, leaded, stained glass). Wood windows are the most common, but steel and aluminum are also present.

The most prevalent door types are rectangular paneled doors (either solid or partially glazed); solid doors (plain surface, not panelized); round or pointed-arched doors (either solid or paneled); fully glazed doors (one large full light); and French doors (paired multi-light doors). Wood doors are the most common, but steel and fiberglass composites are also present.

Refer to Ch. 2 - Guidelines for the Preservation, Rehabilitation, and Restoration of Historic Resources for more information on window and door types.

The tall wood doors and clerestory windows on this Contemporary Ranch house are integral to its character.

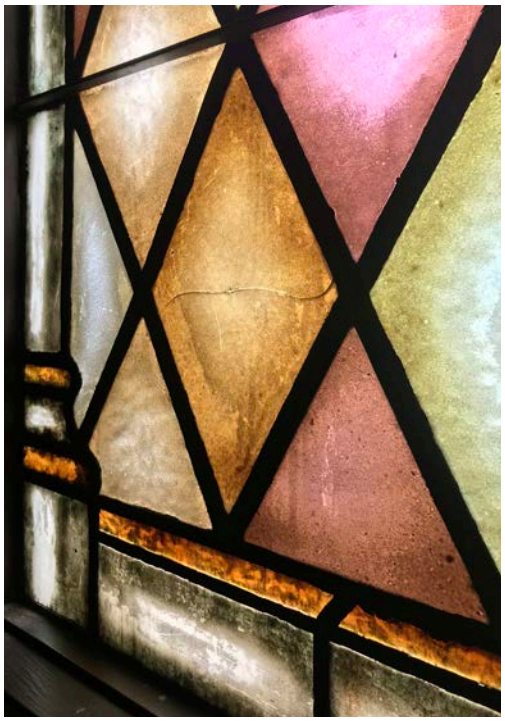
Windows & Doors

Typical Problems

Windows and doors can have a number of problems, most often related to the deterioration of the materials themselves from a lack of maintenance or over-use. Common problems with doors and windows include:

- Wood decay, rot, and deterioration due to moisture (in particular at window sills and door thresholds)
- Wood insect damage
- Racking (skewing) of window and door frames due to ground settlement or seismic activity
- Overpainting of window sashes and frames so they become difficult to open and close
- Steel corrosion and deterioration
- Aluminum oxidation
- Glass breakage from impact, vandalism, or cyclic temperature changes
- Broken, damaged, or corroded/deteriorated hardware
- Drafty openings

Refer to Appendix C - Material Inspection Checklists, for more information on common door and window problems and recommended solutions.



Cracked glazing in a stained glass window.

Weathered doors with corroded and missing hardware.

RELEVANT SOURCES

National Park Service Preservation Brief 9: The Repair of Historic Wooden Windows

Windows & Doors

Maintenance & Repair

Weathered and racked window needing repair.

A well-maintained door.

As with other historic building materials, routine maintenance of historic windows and doors is key to ensuring their survival. Gentle cleaning, oiling hardware, and other preventive maintenance will head off major issues. In general, replacement of an entire window because of a deteriorated piece is not necessary. Most often the damaged part can be either repaired or removed and replaced in kind. The type of repair will vary depending on the material (see "wood" and "metal" sections above). To maintain and prolong the life of the materials, it is important to control unwanted moisture by maintaining paint coatings, sealants, and putties. When these materials begin to peel, age or crack, water can get inside and propagate wood rot or metal corrosion.

- Inspect doors and windows for racking, damage, and problems with operation
- Clean surfaces regularly and repaint as needed
- Replace window putties and sealants regularly
- Clean and oil hardware as needed
- Remove built-up paint that may restrict movement
- Re-caulk perimeter joints and install weatherstripping between moving parts to reduce air infiltration
- Replace broken glazing in kind

For more detailed information on treating window and door materials, refer to Appendix C - Material Inspection Checklists.

Metalwork

Types & Components

Metalwork information forthcoming.

Chapter 4

Guidelines for Accessibility, Systems, and Sustainability

Chapter Overview

This chapter provides design guidelines for a variety of modern needs that can pose challenges for owners of historic properties: accessibility (ADA compliance); updated mechanical and utility equipment; security systems; and environmental sustainability (like energy efficiency, water conservation, and green energy technology). It also provides guidelines for the treatment of structural systems in historic buildings, including seismic upgrades.

Use This Chapter If...

- You own a historic building that needs to be upgraded to meet accessibility requirements.
- You are undertaking mechanical improvements, utility upgrades, or security upgrades that may be visible at the exterior of your historic building.
- You are interested in enhancing your historic building's energy efficiency or are pursuing other improvements related to environmental sustainability.

What's Inside...

Accessibility
    Sites and Entrances
Mechanical, Utility, and Security Equipment
Energy Conservation and Environmental Sustainability
    Treatment Guidelines
    Historic Doors & Windows: Retrofitting vs. Replacement for Energy Efficiency
    Energy Efficiency Upgrades and Water Conservation Strategies
    Energy-Generating Technologies
    Solar Technology
    Wind Power
    Cool Roofs and Green Roofs
Structural Systems
    Treatment Guidelines
    Seismic Upgrades

Accessibility

Guidelines for Accessibility

In 1990, the Americans with Disabilities Act (ADA) was passed, mandating that all public buildings be accessible to everyone, including those with disabilities. The ADA applies to historic buildings that are used for commercial, multi-family, rental, and public purposes. However, the law also allows for alternative measures to be considered when the integrity of a historic building may be threatened by standard accessibility upgrades. Redlands' owners of public historic properties should comply with accessibility requirements while still preserving the character and integrity of their historic buildings. As these Historic Design Guidelines are intended to direct the exterior treatment of historic buildings, treatment options related to making interior historic spaces accessible are not provided.

For more information regarding the ADA and historic buildings, refer to the 2016 California Historical Building Code, California Code of Regulation, Title 24, Part 8.

The accessibility ramp at the side of this building is painted and retains a simple design that is compatible with the historic building.

Site and Entrances

- Provide barrier-free access that promotes independence for those with disabilities, while preserving the significant historic features of the building and its site.
- Install accessibility ramps, railings, and lifts in such a way that their impact on the historic building is minimized. Accessibility features should be reversible so that if removed in the future, the integrity of the historic building should not be compromised.
- Integrate ramps, railings, and lifts with the building's architecture and historic setting. Use materials that are compatible with the original building materials and design. Avoid the use of pre-manufactured metal ramps or wheelchair lifts at the primary façade of the building.
- Retain historic doors when possible. Retrofit historic doors for accessibility by adding lever-handle devices to existing hardware and/or installing power assisted door openers.
- If the primary entrance to the building is too narrow for accessibility requirements, establish an entrance doorway that meets requirements at a secondary façade. The doorway should be no further than 200 feet from the primary entrance, per the State Historical Building Code.

RELEVANT SOURCES

National Park Service Preservation Brief 32: Making Historic Properties Accessible

Mechanical, Utility, & Security Equipment

Guidelines for Systems

New technologies in building operations and contemporary security requirements have introduced various types of equipment into (and onto) historic buildings where they were not present historically. The physical and visual impacts of such equipment should be minimized in order to preserve the character and integrity of Redlands' historic resources.

Mechanical Equipment

- Install mechanical equipment in areas and spaces that require the least amount of alteration to the historic features and fabric of the building. Avoid cutting holes in important architectural features, such as cornices, decorative ceilings, and wall paneling.
- Locate heating, ventilating, and air conditioning (HVAC) equipment, such as air handling units and heat pumps, at the rear roof or yard of the building to minimize its visibility from the public right-of-way. Avoid installing mechanical equipment at the primary façade of the building.
- If visibility from the public right-of-way is unavoidable, incorporate equipment with matte finishes and colors compatible with the historic building fabric.
- Place ground-mounted equipment in inconspicuous locations and consider installing a modest screen around the equipment.
- When feasible, install ductless air conditioning units or mini-duct systems so that ducts are not visible from the exterior.

For more information regarding mechanical, electrical, and plumbing requirements in historic buildings, refer to the 2016 California Historical Building Code, California Code of Regulation, Title 24, Part 8.

This mechanical equipment is located below the parapet of the building so that it is not visible from the public right-of-way.

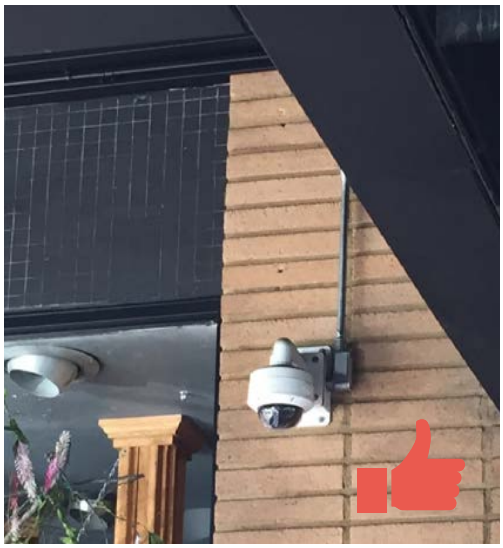
Utilities

- Install utilities in areas and spaces that require the least amount of alteration to the historic features and fabric of the building. Avoid cutting holes in solid walls to install conduit.
- When possible, group utility lines into one conduit to reduce the visual impact on the historic building.
- Do not use exposed conduit on the exterior of the historic building. If unavoidable, paint conduit to match the building's exterior.
- Antennas and satellite dishes should be located in places that are not readily visible from the public right-of-way (i.e. on the roof at the rear of the building).
- When possible, install automated teller machines (ATMs) on the interior of the building to avoid adverse impacts to the exterior. Avoid locating ATMs at the primary façade of the building.

Avoid installing utility features, such as this antenna, at the front of a building.

Mechanical, Utility, & Security Equipment

Guidelines for Systems



An example of a security camera installed at the upper storefront in an inconspicuous area, behind an awning.

Avoid the use of security bars and doors that obscure historic fenestration.

Security Equipment

- Install security equipment in such a way that it requires the least amount of alteration to the historic features and fabric of the building. The installation of security devices should be reversible so that if removed in the future, the integrity of historic materials would not be compromised.
- Security devices, such as cameras and lighting, should be small and located in inconspicuous areas (i.e. inside eaves or awnings) so that they do not detract from the historic character of the building.
- Security devices should not obscure significant architectural details or features.
- On commercial storefronts, use operable and transparent security screens, when necessary. Avoid using solid metal roll-up doors that hide historic storefronts when closed.
- Avoid the use of security bars and doors that obscure historic fenestration, particularly at the primary façade and those most visible from the public right-of-way. Security bars and doors may be acceptable for use on fenestration not visible from the public right-of-way (i.e. on the rear façade).

RELEVANT SOURCES

National Park Service Preservation Brief 24: Heating, Ventilating, and Cooling Historic Buildings -- Problems and Recommended Approaches

Energy Conservation and Environmental Sustainability

Guidelines for the Treatment of Inherently Sustainable Historic Building Components

In 2017, the City of Redlands adopted a Climate Action Plan (CAP) to demonstrate its commitment to reducing greenhouse gas (GHG) emissions and complying with the State of California's GHG emission reduction standards. The Redlands CAP sets forth the following goals related to energy reduction in existing buildings to more aggressively target GHG emissions:

- Encourage residential energy efficiency retrofits with the goal of a 50 percent energy reduction in 30 percent of the total homes citywide by 2035.
- Encourage commercial and industrial energy efficiency retrofits with the goal of a 25 percent energy reduction in 30 percent of the commercial and industrial square footage citywide by 2035.

Because older buildings are often less efficient than their newer counterparts, Redlands' substantial historic building stock presents a significant opportunity for reducing the city's GHG emissions. In order to preserve the character of Redlands' historic buildings, energy conservation measures should focus on retaining inherently sustainable, energy-saving historic features and implementing energy efficiency improvements that have minimal impact on historic integrity.

Prior to pursuing any energy efficiency upgrades in a historic building, the following treatment guidelines should be considered in order to optimize the energy-saving potential of the historic building's existing components and features.

Preserve

- Preserve the character and integrity of the historic building and its components during energy efficiency upgrades.
- Preserve inherent energy-saving features of the historic building. Energy-saving features include shutters, awnings, porches, skylights, vents, operable windows, and transoms, which together help to provide natural climate control.

Maintain

- Maintain the building's energy-saving features in operable condition. Regular, ongoing maintenance helps to preserve historic fabric and maximize operation efficiency.
- During regular maintenance, prioritize the use of sustainable products, such as non-toxic cleaning products that are compatible with historic finishes, and low volatile organic compound (VOC) paints when repainting.

In addition to preserving their historic character, the reuse and sensitive upgrading of historic buildings reduce the amount of energy needed to produce new building materials by preserving the energy already contained in existing buildings. The sum of all the energy consumed in the process of producing building materials is known as embodied energy.

Energy Conservation and Environmental Sustainability

Guidelines for the Treatment of Inherently Sustainable Historic Building Components

Repair rather than replace building materials to reduce the amount of waste being sent to the landfill.

Retrofitting original windows with historically compatible, low-e glass is a way to achieve greater energy efficiency. (Photo, City of Phoenix Planning and Development Department, Historic Preservation Office, 2018.)

Repair

- Repair, rather than replace, deteriorated building materials and components, in order to reduce the amount of waste being sent to the landfill and the need to produce new materials.

Refer to Ch. 3 - Guidelines for the Preservation, Rehabilitation, and Restoration of Historic Exterior Building Materials for additional information on appropriate repair options.

- Repair inoperable windows and transoms that were historically operable to increase natural ventilation.

Replace

- If historic windows are missing or are deteriorated beyond repair, install energy-efficient windows that match the material, design, size, proportion, and overall appearance of the existing historic windows.
- Replacement windows may include new windows with clear, low-emissivity (low-e) glass or laminated glass that is not noticeably different in profile or reflectivity than existing historic glazing.
- In general, double-glazed windows are incompatible replacement windows in a historic building because most double glazing reflects differently than single glazing, altering the historic appearance of the building. Additionally, double glazing often requires thicker muntin profiles than exist in historic windows, which can alter the historic character of the building. However, recently some manufacturers have begun to make slim-profile, double-glazed windows, which may be appropriate for historic buildings. The City may determine whether double-glazed window panes are acceptable on a case-by-case basis.

Restore

- Restore inherently sustainable, energy-saving historic features that have been removed or altered. Restoration of these features should be based on existing historic documentation.

Energy Conservation and Environmental Sustainability

Historic Doors & Windows: Retrofitting vs. Replacement for Energy Efficiency

There is a common misperception that historic windows are drafty, difficult to maintain, and not energy efficient. Window manufacturers propagate this myth, often by comparing a new window with an unrestored, unmaintained historic window. The principal offender affecting a building's energy efficiency is actually the infiltration of air, rather than heat gain or loss through window glass. According to the Journal of Building Physics (January 2012), studies estimate that infiltration can account for as much as 50% of the heating load in a building. Thus, the addition of weatherstripping at windows and doors, as well as caulking cracks and sealing mechanical ducts and pipes, can have a major impact on reducing air infiltration and increasing energy efficiency.

Keeping and restoring historic wood windows instead of replacing them is important not just to a building's authenticity, but also to sustainability. The original wood materials and thin profiles found in historic windows are difficult to replicate with new windows. Traditional windows were made from quality materials and used individual parts fitted together (stiles, rails, muntins, etc.). They incorporate both hardwoods and softwoods, often from early growth lumber, which is more dense, dimensionally stable, and termite-resistant compared to contemporary lumber. And when the parts are damaged, they can be individually repaired or replaced in kind.

Modern windows are manufactured using contemporary lumber as complete units. When one part fails, the entirety must be replaced. They are also visually bulkier and less refined in detail than their historic counterparts, a result of their need to accommodate double-glazed panes.

Maintaining and repairing historic windows can be as simple as adding weatherstripping, keeping components clean and operable, insulating wall cavities (like sash pockets in double-hung windows), and maintaining paint to prevent sashes and frames from warping and deteriorating.

Appropriate Window Glazing Alternatives

Redlands' hot summers can add significant energy costs associated with cooling a building, putting more strain on mechanical systems. Low-emittance ("low-e") glass has been proven to improve thermal performance by eliminating infrared radiation through the window, and can be installed in historic windows. Another option is laminated glass, which has some insulating value and can be equipped with a low-e coating to help offset heat gain. Some manufacturers are also making slim-profile, double-glazed panes, which may be appropriate for retrofitting historic windows. However, the City should be consulted before deciding on an appropriate window glazing alternative.

Energy Conservation and Environmental Sustainability

Energy Efficiency Upgrades and Water Conservation Strategies

Consider hiring a professional to conduct an energy audit in order to identify energy efficiency upgrades that can be undertaken without compromising the historic character of the building.

Seek less invasive weatherizing solutions first, such as installing interior curtains or shades.

Awnings are a historically appropriate solution to keeping a building cool.

There are a number of energy improvements and water conservation strategies that may be appropriate to implement in a historic building. While the appropriateness of different strategies may be determined on a case-by-case basis, any improvements that are undertaken should not compromise the historic character and integrity of the building.

- Prioritize energy upgrades and water conservation methods that are less invasive and thus less likely to damage historic building material. Less invasive improvements include:
    - The addition of weatherstripping at windows and doors
    - The installation of operable systems at historic fenestration (i.e. storm windows/doors, curtains, and awnings)
    - The application of clear window films to block ultraviolet (UV) rays
    - Sealing and insulating air ducts and water pipes
    - The installation of energy- and water-efficient systems (i.e. high efficiency air conditioning units, LED light bulbs, low-flow sprinkler heads, and timed sprinkler systems).
- Install insulation at the interior of the building so that the exterior historic appearance of the building is not impacted. Insulation should only be installed after other less invasive energy-efficient upgrades are implemented and air infiltration has been reduced.

Prior to insulating a historic building, consult with a professional to ensure the insulation can be installed safely without affecting the durability and lifespan of historic building material.

Energy Conservation and Environmental Sustainability

Energy Efficiency Upgrades and Water Conservation Strategies

- If the building's landscaping is not historically significant, consider planting drought tolerant, water conserving vegetation.
- Consider installing a graywater system, per City of Redlands Ordinance No. 2842 and the California Plumbing Code (Title 24, Part 5, and Chapter 16).
- Incorporate rainwater harvesting systems, such as rain barrels. Install barrels where they will have a minimal impact on the historic character of the building (i.e. at the rear or side of the building).
- When installing new paving (i.e. a walkway or driveway), consider using pervious concrete, a porous material that allows water to infiltrate, helping to manage runoff and recharge groundwater supplies. New concrete should match the tint, scouring pattern, and dimensions of existing historic concrete.

Refer to Ch. 9 - Guidelines for Site and Landscape Design for additional information regarding appropriate historic hardscaping treatments

Refer to the City of Redlands' website for more information about its free water use analysis by Water Conservation staff and its Water Rebate Program: https://www.cityofredlands.org/cms/One.aspx?portalId=6255746&pageId=7922580

Consider installing drought tolerant landscaping to conserve water.

Porous driveways help with water runoff.

Energy Conservation and Environmental Sustainability

Energy-Generating Technologies

Avoid installing solar panels at the front of a roof.

Solar Technology

- When installing solar technology, minimize potential adverse effects on the character and integrity of the historic building and, if applicable, the surrounding historic district.
- When possible, use ground-mounted solar technology. Site the equipment in an inconspicuous location, such as a rear or side yard.
- Locate solar equipment on new construction, additions, or on ancillary buildings, such as garages, in order to minimize any direct impacts to the historic building.
- If located on the roof of a historic building, solar equipment should be installed in such a way that its visibility is minimized from the public right-of-way. Solar equipment should not alter the historic roofline or roof profile. The size of the equipment should be subordinate to the overall size of the historic roof.
- Attach solar equipment using the least invasive methods possible so that it may be easily removed without adversely affecting historic building fabric.
- Ensure solar panels, framing, and conduits are compatible with the color of the surrounding historic fabric to minimize their visibility.
- As solar technology continues to advance, solar roof shingles may be acceptable for use on historic buildings, provided that the shingles are compatible with the historic appearance of the original roofing. Appropriateness may be determined by the City on a case-by-case basis.
- If installing solar equipment will negatively impact the historic character of the building or site, consider off-site renewable energy options.

RELEVANT SOURCES

National Park Service Preservation Brief 3: Improving Energy Efficiency in Historic Buildings
Association for Preservation Technology Technical Committee on Sustainable Preservation

Energy Conservation and Environmental Sustainability

Energy-Generating Technologies

Wind Power

- When installing wind-powered technology, minimize the potential adverse effects on the character and integrity of the historic building and, if applicable, the surrounding historic district.
- When possible, use ground-mounted wind-powered equipment. Site the equipment in an inconspicuous location, such as a rear or side yard.
- Locate equipment on new construction, additions, or ancillary buildings to minimize any direct impacts to the historic building.
- Only in rare instances may wind-powered equipment be acceptable on a historic building since in most instances, the equipment would be highly visible, impacting the historic character of the building.
- If installing wind-powered equipment will negatively impact the historic character of the building or site, consider off-site renewable energy options.

An example of wind-powered equipment located in a remote land location. (Photo, National Park Service, Illustrated Guidelines on Sustainability for Rehabilitating Historic Buildings, 2018)

Cool Roof vs. Green Roof

Cool Roof: a roof made of highly reflective paint, sheet coverings, tiles, or shingles. Cool roofs are designed to reflect more sunlight and absorb less heat than a standard roof. In turn, they lower roof temperatures during hot, sunny weather, keeping buildings cooler inside and increasing energy savings for cooling.

Green Roof: a roof that is partially or fully covered with vegetation and a growing medium, planted over a waterproof membrane. Green roofs provide increased thermal insulation, helping to further energy savings for heating

Cool Roofs and Green Roofs

- When installing a cool or green roof, minimize potential adverse effects on the character and integrity of the historic building.
- When possible, install a cool or green roof on the flat-roof portion of a building to minimize its visibility from the public right-of-way.
- If the cool roof is visible from street level, ensure the color and roofing material is compatible with the historic building fabric.
- Vegetation on a green roof should be appropriately scaled so that it does not extend above the roof parapet.
- Prior to installing a green roof, ensure the roof is water tight and that roof drains, gutters, and downspouts function properly. Include a moisture-monitoring system to protect the historic building from added moisture and unintended leakage.

An example of a green roof with appropriately scaled vegetation that does not extend above the parapet.

Structural Systems

Treatment Guidelines

A building's structural capacity is crucial to its long-term preservation. In the State of California, where buildings are likely to experience seismic activity, structural stability is imperative to ensuring a historic building's future existence and the safety of those who use it. Moreover, current seismic code requirements specify that historic buildings must meet a minimum level of structural capacity. Historic building owners should comply with seismic code requirements while retaining a building's historic character and integrity to the greatest extent feasible.

Prior to pursuing any additional seismic reinforcement, historic building owners should consider the following treatment options regarding the enhancement of a historic building's existing structural system.

In some cases, a historic building's structural system, such as an exposed interior roof truss, may be a character-defining feature in its own right and should be preserved.

Inspect seismically vulnerable historic components, such as chimneys, to ensure they are structurally sound.

Weakened or sagging features, such as this porch roof, suggest the need for structural repair.

Preserve

- Preserve the design, scale, massing, form, proportions, materials, and details of a historic building and its components during seismic reinforcement.
- Avoid removing seismically vulnerable components, such as chimneys, parapets, cornices, or turrets that are considered character-defining features of a historic building.

Maintain

- Maintain a historic building in good condition to ensure the building is not debilitated by rot, rust, decay, or other moisture problems. Well-maintained buildings, even those that have not been seismically retrofitted, are more likely to survive a seismic episode compared to similar buildings that have not been maintained.
- Routine maintenance may include keeping gutters and downspouts clear and the roof and foundation in good repair; alleviating any signs of corrosion of metal ties at parapets and chimneys; regularly inspecting and safeguarding wood structural members from insect infestation; repointing deteriorated mortar joints; and ensuring exit steps are securely connected to the building so that they do not collapse during an emergency exit.

Repair

- Repair a historic building's structural components to enhance its capacity to withstand a seismic event.
- Repair work may include augmenting existing structural components, such as weakened structural members, by pairing or sistering with a new member and bracing (or reinforcing in some other manner).

Structural Systems

Treatment Guidelines

Replace

- Restore historic features and details, such as cornices, parapets, chimneys, and balconies that may have been removed due to their seismic vulnerability. Restoration of these features should be based on existing historic documentation.

Seismic Upgrades

Often, additional structural reinforcement is necessary for the preservation of a historic building and the safety of its occupants. Seismic upgrades should be carried out sensitively, while still complying with code requirements.

- Prioritize seismic improvements that have a minimal visual impact on the historic exterior of a building. Such improvements may include interior diagonal bracing, moment frames, diaphragms, and shear walls that are set back (or otherwise not visible) from windows or storefronts, and hidden or grouted bolts and rods used to tie foundation, floors, and walls together.
- If visible from the right-of-way, reinforcement features such as anchor plates and washers should be designed to blend with the exterior of the building.
- Install exterior bracing at projecting elements, such as parapets, chimneys, and balconies, in such a way that the bracing is not visible from the public right-of-way and does not damage the decorative details of these elements.

For more information regarding structural requirements in historic buildings, refer to the 2016 California Historical Building Code, California Code of Regulation, Title 24, Part 8.

An example of seismic anchor plates that blend in with the surrounding brick.

An example of parapet reinforcement not visible from the public right-of-way.

RELEVANT SOURCES

National Park Service Preservation Brief 41: The Seismic Rehabilitation of Historic Buildings

Chapter 5

Guidelines for New Additions

Chapter Overview

Additions to historic buildings may be acceptable when the continued use or adaptive reuse requires more space, or space/use of a different nature than exists, within the historic building. Constructing an addition may be an alternative to removing historic interiors by accommodating the new or expanded use outside of the historic building envelope. The goal in designing a new addition is to achieve the necessary space or function for the new or expanded use while having a minimal physical and visual impact on the historic building. In Redlands, new additions should be contextual, rather than contrasting, in order to preserve its historic small town character.

During the construction of an addition, precautions should be taken to protect the materials, features, and details of the existing historic building and adjacent historic buildings and structures on the site. Loss, alteration, or obstruction of a significant architectural feature as a result of a new addition is inappropriate.

Use This Chapter If...

- You have outgrown your historic building and need to accommodate more square footage by adding on to the building or constructing next to it.
- You are undertaking a rehabilitation and require a different kind of space than your historic building currently offers.
- You are interested in filling the vacant or under-developed land adjacent to your property.

What's Inside...

Residential Additions
Commercial Additions

Residential Additions

It may be appropriate to construct a new residential addition if it is required for the continued use or adaptive reuse of an existing historic building. A residential addition should be compatible in scale, location, massing, materials, and design to the existing historic building and the immediate neighborhood context.

An example of an appropriate addition to a historic building. The addition is located on the side façade, set back from the front of the building; it is smaller in footprint and subordinate to the main building, and its roofline has a similar pitch as the historic roof pitch.

An example of a minimally visible, appropriate roof addition at the rear of a building.

Placement

- Avoid an addition at or flush with the primary façade.
- Consider a sub-grade addition, where structural conditions allow.
- Above ground residential additions should be constructed at secondary façades (preferably the rear), not readily visible from the public right-of-way.
- A residential rooftop addition should be positioned on the rear plane of the roof.
- Maintain the general yard pattern (i.e. rear and side setbacks) around the new addition.

Scale and Massing

- A new residential addition should relate to the scale, massing, and form of the existing historic building.
- A new residential addition should be smaller in footprint than the existing historic building and set back from the edges of the façade or roof enough to establish a subordinate relationship. Maintain a proportional lot coverage to the residential block.
- A new ground addition should be less than the height of the existing historic building and a new rooftop addition should rise no more than one-story above the existing historic building to establish a subordinate relationship.
- Align with the orientation and shape of the roofline or eaves of the historic building.

RELEVANT SOURCES

National Park Service Preservation Brief 14: New Exterior Additions to Historic Buildings: Preservation Concerns

Residential Additions

Materials

- A new residential addition should be constructed of materials that are compatible with the existing historic building and neighborhood context in scale, color, and texture. If the existing building is composed of multiple materials, relate to the original material closest to the addition.
- Use of alternative materials may be appropriate at the non-visible sides of an addition.

Design of Building Components

- A residential addition's architectural features and details should be compatible with the existing historic building and neighborhood context in overall character, but with minor variations and contemporary materials to differentiate the addition from the historic building. For example, single-light, double-hung wood windows may be appropriate at a rear addition to a building with multi-light, double-hung wood windows.
- Avoid copying the style of the historic building exactly or using conjectural features, such as a turret or shutters, that may create a false sense of history or change the style of the building.
- The new design, architectural features, and details should be modest so as not to detract from the historic building.
- Relate to the existing historic pattern and shape of window and door openings at the visible sides of an addition.

Avoid constructing additions at the primary façade of the building.

Avoid additions that are not compatible with the scale and style of the building.

Avoid large additions that compete with the scale, massing, and design of the building.

Commercial Additions

It may be appropriate to construct a new commercial addition where there is a gap in the street wall or if it is required for the continued use or adaptive reuse of an existing historic building. A commercial addition should be compatible in scale, location, massing, materials, and design to the existing historic building and the immediate commercial context.

A small side addition is appropriately positioned and scaled to this one-story historic building.

Placement

- Avoid an addition at or flush with the primary façade.
- Commercial additions should be constructed at the side, rear, and/or roof of an existing historic building.
- Commercial additions at the side of the building should maintain the street wall.

Scale and Massing

- A new commercial addition should relate to the scale, massing, and form of the existing historic building, but be differentiated enough to establish a subordinate relationship.
- A side addition should maintain the proportions of the primary façade and should not exceed the height of the existing historic building.
- Consider using a hyphen to connect a side addition to provide a distinction between the new construction and historic building.
- A rear or roof addition should be set back from the edges of the façade or roof and rise no more than one story above the historic building. A roof addition should be minimally visible from the public right-of-way, and typically, a 15-foot setback is sufficient to establish a subordinate relationship.

RELEVANT SOURCES

National Park Service Preservation Brief 14: New Exterior Additions to Historic Buildings: Preservation Concerns

Commercial Additions

Materials

- A new addition should be constructed of materials that are compatible with the existing historic building in scale, color, and texture. If the existing building is composed of multiple materials, relate to the original material closest to the addition.
- Use of alternative materials may be appropriate at a rear or roof addition.

Design of Building Components

- A commercial addition's architectural features and details should be compatible with the existing historic building in overall character, but with minor variations and contemporary materials to differentiate the addition from the historic building.
- The new design, architectural features, and details should be modest so as not to detract from the historic building.
- Avoid copying the style of the historic building exactly or using conjectural features that may create a false sense of history or change the style of the building.
- Relate to the existing historic pattern and shape of window and door openings and/or storefronts at the visible sides of an addition.

A simple one-story rear addition is compatible with the scale and design of this historic drive-thru restaurant. (Image, Google, 2018)

Chapter 6

Guidelines for Character Categories

Chapter Overview

Redlands reflects a variety of different development patterns, each of which contributes to the unique character and feeling of the city. In order to address these patterns of development, seven Character Categories have been identified throughout the city. Each Character Category is defined by its distinctive design features, including siting, orientation, vehicular and pedestrian access, and typical building design characteristics in the area. Some of the Character Categories apply to multiple geographic locations within the city, whereas others are confined to one location.

This chapter provides guidance for each identified Character Category in Redlands. Each Character Category includes a description of its general geographic location(s), its current development character, including property types and distinguishing features, illustrations of representative development, and detailed descriptions of design variables that should be considered. All of Redlands' currently designated historic districts lie within Character Categories, and have specific design guidelines beyond those outlined below – see Ch. 6 - Guidelines for Historic District for these specific guidelines.

Use This Chapter If...

- You own a building in an older residential neighborhood or commercial district and want to ensure your planned remodel is compatible with the character of the other older buildings in the area.
- You are constructing a new building in an older neighborhood and want to make sure the building's design and site features are compatible with the character, scale, and massing of adjacent older buildings.

What's Inside...

Character Category A: Pre-War Residential Neighborhoods
Character Category B: Post-War Developer-Built Single-Family Neighborhoods
Character Category C: Post-War Custom-Built Single-Family Neighborhoods
Character Category D: Post War Multi-Family Residential Development
Character Category E: Downtown Commercial Development
Character Category F: Auto-Oriented Commercial Development
Character Category G: Early Industrial Development

Character Category or Historic District?

The terms Character Category and Historic District are not interchangeable. A Character Category is a neighborhood, development type, and/or location which contains buildings and site features reflecting Redlands' historic patterns of development, but has not been formally designated as a historic district. Not every neighborhood in a Character Category may be eligible for designation, but they typically retain original site features and their overall development pattern is still recognizable.

A Historic District is a geographically defined area which contains buildings and site features reflecting Redlands' historic patterns of development and/or historic architectural character, and has also been formally designated as a historic district (local, National Register, or both). See Chapter 7 for more information about Redlands' Historic Districts

A. Pre-World War II Residential Neighborhoods

Introduction & Context

Character Category A encompasses residential neighborhoods constructed from Redlands' founding in the late 19th century to the years leading up to World War II. This Character Category is primarily defined by single-family residences (including some postwar infill). Small-scale multi-family properties (i.e. bungalow courts, duplexes, and small apartment houses), a handful of institutional buildings, and some commercial businesses located in historically residential buildings are present as well. Neighborhoods concentrated near Downtown and north Redlands comprise Character Category A.

A pre-war neighborhood in north Redlands.

Character Category A is defined by its gridded street pattern (northwest/southeast angle near Downtown and north/south orientation in north Redlands), paved streets of varying widths, concrete sidewalks, and cut stone curbs. Lot sizes are generally small and uniform (lots are larger and less regular on major east-west streets), and residences are oriented toward and parallel to the street. Front and side setbacks are typically uniform by street/block, but vary by residential neighborhood. Garages are located at the rear of properties and are typically accessed via narrow concrete driveways (some are accessed via alleys). Front yards are landscaped, often including a concrete pathway from the sidewalk to the front porch. Front yard fences and perimeter walls are rare, though some native stone or concrete retaining walls are present.

Buildings in this Character Category are typically one or two stories. They feature highly articulated front façades, with complex rooflines, recessed or projecting entrance porches, multiple window openings, and various architectural details. Buildings are primarily clad in horizontal wood or stucco, sometimes with masonry accent cladding. Windows and doors are primarily made of wood. A number of architectural styles are present, including various Victorian Era, Arts and Crafts, and Period Revival idioms.

For properties located in a predominantly pre-World War II residential neighborhood, but that do not fit this development context (i.e. post-World War II property types), the following Guidelines for the Treatment of Building Design Elements may not apply.

A. Pre-World War II Residential Neighborhoods

Guidelines for the Treatment of Site Design Elements

Building Placement

- Align the building with the established front setbacks on the block, which are typically uniform in Character Category A.

Side Setbacks

- Provide side setbacks in the range of those seen on the block. Typically, a larger setback is present on one side of a building to allow for vehicular access from the street, and the setback on the opposite side is relatively narrow. This pattern should generally be maintained.

Orientation

- The building should be parallel to and oriented toward the street.

Garage Placement

- Place the garage behind the rear façade of the primary residence wherever feasible. If siting the garage entirely behind the residence is not possible, set the garage back from the primary façade of the building so that it remains subordinate to the building.
- Generally, a garage should not be flush with or project in front of the primary residence in this Character Category.

Vehicular Access

- Provide vehicular access to the primary residence via a side driveway.
- Where an alley is present, a detached garage should be accessed via the alley, rather than a driveway.
- Avoid adding curb cuts and driveways when they are not present on the block in order to maintain the original streetscape and yard patterns in the area. Similarly, avoid expanding curb cuts and driveways.

Residences in pre-war neighborhoods typically retain uniform setbacks from the street.

Pre-war residential garages are typically located at the rear of the property.

A. Pre-World War II Residential Neighborhoods

Guidelines for the Treatment of Site Design Elements

Historic Districts Within Character Cateogry 1

Almost all of Redlands' existing designated Historic Districts fall under Character Category A:

- Eureka Street Historic District
- West Highland Avenue Historic & Scenic District
- Early Redlands Historic & Scenic District
- Normandie Court Historic District
- East Fern Avenue Historic & Scenic District
- Garden Hill Historic & Scenic District
- La Verne Street Historic & Scenic District
- Smiley Park Neighborhood Historic & Scenic District

Refer to Chapter 7 for design guidelines specific to each of these Historic Districts and to Chapter 8 for design guidelines on new construction in residential Historic Districts.

A direct connection to the sidewalk via a paved path is characteristic of houses in Redlands' pre-war neighborhoods.

Pedestrian Access

- Provide a direct connection from the sidewalk to the building's primary entrance via a paved pathway through the front yard.
- In the case of a small-scale multi-family development, such as a bungalow court, each apartment unit should be connected to an internal pathway system that ultimately leads to the sidewalk.

Front Yard Fence

- As most front yards in this Character Category do not retain fences, a front yard fence is discouraged. However, if a front yard fence is necessary or desired, the fence should be compatible with the architectural style of the primary residence.
- The front yard fence should generally be low in scale and visually transparent. Fencing material may vary depending on the style of the building.

Retaining Wall

- A retaining wall, if required, should be designed to match other existing retaining walls in this Character Category and should be finished in the same material as the house (typically stucco or stone).

A. Pre-World War II Residential Neighborhoods

Guidelines for the Treatment of Building Design Elements

Scale and Massing

- Design the building to be compatible with the scale and massing of the predominant one- to two-story residences in the Character Category.

Roof Form

- The building's roof type and pitch should be compatible with the architectural style of the building.

Façade Composition

- Design the building so that its façades, particularly its primary façade and those most visible from the public right-of-way, retain similar proportions, fenestration pattern, and level of articulation as others in the Character Category.
- The building's architectural detailing should be compatible with surrounding residential properties. Details should be simple in design and should complement, rather than visually compete with, the character of adjacent residences.

Entrance Porch or Stoop

- Design a projecting or recessed entrance porch or stoop at the primary façade of the building.
- The front porch/stoop should be one-story in scale and oriented toward the street.
- The building's front porch/stoop should be a prominent visual feature in Character Category A.

Exterior Materials

- Apply a primary cladding material that is compatible with the wood siding and stucco typically present in the Character Category. If a substitute material is used, choose a material that is similar in finish, texture, and overall appearance as wood or stucco siding.

A one-and-half story residence, typical of Redlands' pre-war neighborhoods.

An full-width entrance porch is a prominent feature of houses in Redlands' in pre-war neighborhoods.

A. Pre-World War II Residential Neighborhoods

Guidelines for the Treatment of Building Design Elements

Vertically oriented, double-hung wood windows are typical of houses in the city's pre-war neighborhoods.

Single wood doors with paneling and glazing are common features of pre-war houses in Redlands.

Windows

- Design a new window to be compatible in scale, style, and material to the overall building or similar buildings in age and type.
- A typical window in this Character Category has a vertical orientation and may be a wood double-hung or wood/steel casement depending on the age and style of the building.

Doors

- Design the building with one primary, street-facing entrance.
- Design a new door to be compatible in scale, style, and material to the overall building or similar buildings in age and type.
- A typical door in this Character Category is a single wood door, sometimes with paneling and/or glazing. A rectangular transom and/or sidelights may be appropriate.

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B. Post-War Developer-Built Single-Family Neighborhoods

Introduction & Context

Character Category B encompasses single-family residential neighborhoods constructed immediately after World War II through the 1960s. It includes neighborhoods southeast and southwest of Downtown and to a lesser extent, in north Redlands. Single-family residences are the predominant property type in Character Category B.

A developer-built subdivision in southeast Redlands.

A cul-de-sac is a defining feature of Redlands' postwar subdivisions.

Redlands' developer-built subdivisions largely follow the design principles that had been set forth by the Federal Housing Administration (FHA) in the postwar period, a requirement in order for developer plans to guarantee FHA financing. FHA design principles included the incorporation of cul-de-sacs; minimal numbers of four-way intersections; and curvilinear streets (though some postwar subdivisions, particularly in north Redlands, follow the gridded street pattern of the city's earlier development). While all of the neighborhoods in this Character Category feature concrete sidewalks, the type of curb (cut stone or concrete) varies. Lot sizes are generally modest, and front and side setbacks are consistent. Residences in Character Category B are oriented toward and parallel to the street. Garages may be attached to the residence, or in the case of earlier postwar subdivisions, detached at the rear of the property. Vehicular access is provided via a concrete driveway, or if the garage is detached, via an alley (a less common pattern). Front yards are landscaped, often including a concrete pathway from the sidewalk to the primary entrance. Front yard fences are rare.

Buildings in these postwar residential neighborhoods are typically one story in height. Front façades are less articulated than the façades of prewar houses, with modest porches or entrance stoops and minimal applied ornamentation. Buildings are primarily clad in wood and/or stucco, sometimes with masonry accent cladding. Windows may be constructed of wood or metal, whereas front doors are primarily wood. Prevalent architectural idioms include Minimal Traditional and various iterations of the Ranch style.

For properties located in a predominantly post-World War II residential neighborhood, but that do not fit this development context (i.e. pre-World War II or modern property types), the following Guidelines for the Treatment of Building Design Elements may not apply.

B. Post-War Developer-Built Single-Family Neighborhoods

Guidelines for the Treatment of Site Design Elements

Building Placement

- Align the building with the established front setbacks on the block, which are typically uniform in Character Category B.

Side Setbacks

- Provide side setbacks in the range of those seen on the block. Side setbacks are generally narrow in Character Category B.
- In some neighborhoods in Character Category B, a larger setback is present on one side of a building to allow for vehicular access from the street to a rear detached garage; the setback on the opposite side is relatively narrow. This pattern, when present, should generally be maintained.

Orientation

- The building should be parallel to and oriented toward the street.

Garage Placement

- Conform to the typical garage placement present on adjacent properties.
- If neighboring garages are attached, the building's garage should be attached.
- If surrounding garages are detached, the building's garage should also be detached. A detached garage should be placed behind the rear façade of the primary residence wherever feasible. If siting the garage entirely behind the residence is not possible, set the garage back from the primary façade of the building so that it remains subordinate to the building.

Vehicular Access

- Provide vehicular access to the attached/detached garage via a driveway. The placement and configuration of the driveway may vary.

Houses in Redlands' postwar neighborhoods typically retain uniform setbacks from the street.

Postwar developer-built residences, like this Ranch style house, are typically parallel to and oriented toward the street.

B. Post-War Developer-Built Single-Family Neighborhoods

Guidelines for the Treatment of Site Design Elements

A paved walkway provides pedestrian access from the sidewalk to the front entrance of this postwar residence.

Pedestrian Access

- Provide a direct connection from the sidewalk to the building's primary entrance via a paved pathway through the front yard.

Front Yard Fence

- As most front yards in this Character Category do not retain fences, a front yard fence is discouraged. However, if a front yard fence is necessary or desired, the fence should be compatible with the architectural style of the building.
- The front yard fence should generally be constructed of wood, low in scale, and visually transparent.

Retaining Wall

- A retaining wall, if required, should be designed to match other existing retaining walls in this Character Category and should be finished in the same material as the house (typically stucco or stone).

The front yards of most postwar houses in the city are not fenced.

B. Post-War Developer-Built Single-Family Neighborhoods

Guidelines for the Treatment of Building Design Elements

Scale and Massing

- Design the building to be compatible with the scale and massing of the predominantly one-story, horizontally oriented residences in the Character Category.

Roof Form

- The building should be designed with a low- to medium-pitch, gable or hipped roof, compatible with the architectural style of the building and other buildings in the area.
- Maintain the continuous eave line of the roof.

Façade Composition

- Design the building so that its façades, particularly its primary façade and those most visible from the public right-of-way, retain similar proportions, fenestration pattern, and level of articulation as others in the Character Category.
- Applied ornamentation should be minimal in Character Category B.

Entrance Porch or Stoop

- Incorporate an entrance porch or stoop into the primary façade of the building.
- The porch or stoop should be modest in scale, with minimal articulation.

Exterior Materials

- Apply a primary cladding material that is compatible with the wood siding and stucco typically present in the Character Category. If a substitute material is used, choose a material that is similar in finish, texture, and overall appearance as wood or stucco siding.

Postwar developer-built houses are typically one story with horizontal massing.

An example of stucco cladding and stone accent cladding, typical of houses in Redlands' postwar neighborhoods.

B. Post-War Developer-Built Single-Family Neighborhoods

Guidelines for the Treatment of Building Design Elements

Aluminum sliders are a common window type for postwar houses.

An example of an attached garage, a common characteristic of the city's postwar residences.

Windows

- Design a new window to be compatible in scale, style, and material to the overall building or similar buildings in age and type.
- A typical window in this Character Category may be a wood double-hung or steel casement, or an aluminum slider depending on the age and style of the building. A single multi-light picture or bay window may also be appropriate.

Doors

- Design the building with one primary, street-facing entrance.
- Design a new door to be compatible in scale, style, and material to the overall building or similar buildings in age and type.
- A typical door in this Character Category is a single or double, solid or partially glazed wood door with no paneling or with simple geometric paneling. A rectangular transom and/or sidelight(s) may be appropriate.

Attached Garage

- Install a garage door that is compatible with the configuration, proportions, and material of those found in the Character Category.
- A typical garage door in this Character Category is a single-panel, wood tilt door or a metal roll-up door. There is simple geometric paneling or design, or no paneling at all, and doors typically have no glazing.

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C. Post-War Custom-Built Single-Family Neighborhoods

Introduction & Context

Character Category C encompasses single-family subdivisions consisting of custom-built, single-family residences dating from the 1950s through the 1970s. Less common than the developer-built subdivisions in Character Category B, neighborhoods in this Character Category are concentrated in the hillsides southeast of Downtown. These subdivisions are defined by their curvilinear street pattern; long blocks; wide paved streets, often featuring cul-de-sacs; concrete curbs; and general lack of sidewalks. Lot sizes are typically large and irregularly shaped, and front and side setbacks vary from lot to lot. The orientation and alignment of residences also vary. Garages are typically attached to the primary residence and accessed via a wide concrete driveway leading from the street. Concrete walkways provide a path to the primary entrance from the driveway or the sidewalk. Front yards are landscaped, and front yard fences are rare. Concrete retaining walls are common in hilly areas.

A winding custom-built subdivision along Sunset Drive in south Redlands.

Buildings in this Character Category are typically one story in height, with a few two-story properties. Front façades are less articulated, with subdued entryways and minimal ornamentation. Buildings are primarily clad in wood and/or stucco, sometimes with masonry accent cladding. Architectural styles include Mid-Century Modern and various Ranch style iterations.

Custom-built houses in the Country Club Estates area of Redlands.

C. Post-War Custom-Built Single-Family Neighborhoods

Guidelines for the Treatment of Site Design Elements

Building Placement

- As Character Category C contains a range of front setbacks, variety in front setbacks is appropriate.

Side Setbacks

- Promote flexibility in the size of side setbacks. Side setbacks do not need to be equal in width.

Orientation

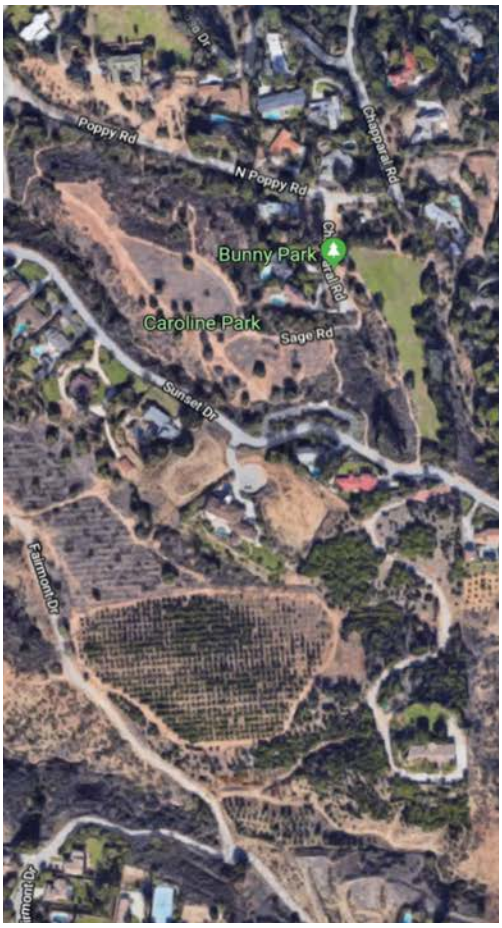
- Where the building is largely visible from the street, generally orient the building toward the street. However, the primary façade does not need to be parallel to the street.

Garage Placement

- The garage should generally be attached to the primary residence. It may be projecting from or flush with the primary façade. The garage's orientation toward the street may vary.

Vehicular Access

- Provide vehicular access to the primary residence via a driveway. The placement and configuration of the driveway may vary.



This Google aerial view illustrates the variety in setbacks and orientation in the city's custom-built postwar neighborhoods.

Modernist Architects Working in Redlands

Many of Redlands' custom-built postwar houses were designed by notable local and regional architects specializing in Mid-Century Modern styles, including Clinton Marr, Richard Neutra, C. Paul Ulmer, Leon Armantrout, and Clare Henry Day. The Redlands-based Day was particularly known for his residential designs, featuring horizontal massing, expanses of windows, and wide, flat roof eaves. His houses survive in nearly every custom-built postwar subdivision in the city, including at least four on Sunset Drive alone.

A custom-built house designed by architect Clare Henry Day on Sunset Drive.

C. Post-War Custom-Built Single-Family Neighborhoods

Guidelines for the Treatment of Building Design Elements

A paved walkway provides pedestrian access to the primary entrance from the driveway at this postwar house.

Pedestrian Access

- A paved walkway should provide access to the building's primary entrance, either directly from the sidewalk or from the driveway.

Front Yard Fence

- As most front yards in this Character Category do not retain fences, a front yard fence is discouraged. However, if a front yard fence is necessary or desired, the fence should be compatible with the architectural style of the building.
- The front yard fence should generally be constructed of wood, low in scale, and visually transparent.

Retaining Wall

- A retaining wall, if required, should be designed to match other existing retaining walls in this Character Category and should be finished in the same material as the house (typically stucco or stone).

The front yards of most custom-built postwar houses in the city are not fenced.

C. Post-War Custom-Built Single-Family Neighborhoods

Guidelines for the Treatment of Building Design Elements

Scale and Massing

- Design the building to be compatible with the scale and massing of the predominantly one-story, horizontally oriented residences in the Character Category.

Roof Form

- The building should be designed with a low- to medium-pitch, gable or hipped roof, compatible with the architectural style of the building and other buildings in the area.

A low-pitched roof, typical of postwar architecture.

Façade Composition

- Design the building so that its façades, particularly its primary façade and those most visible from the public right-of-way, retain similar proportions, fenestration pattern, and level of articulation as others in the Character Category.
- Applied ornamentation should be minimal in Character Category C.

Postwar residential entrances are modest in scale, with minimal articulation.

Entrance Porch or Stoop

- Incorporate an entrance porch or stoop into the primary façade of the building.
- The porch or stoop should be modest in scale, with minimal articulation.

Exterior Materials

- Apply a primary cladding material that is compatible with the wood siding and stucco typically present in the Character Category. If a substitute material is used, choose a material that is similar in finish, texture, and overall appearance as wood or stucco siding.

C. Post-War Custom-Built Single-Family Neighborhoods

Guidelines for the Treatment of Building Design Elements

An example of the types of windows and doors that are appropriate for Redlands' postwar neighborhoods.

Windows

- Design a new window to be compatible in scale, style, and material to the overall building or similar buildings in age and type.

Doors

- Design the building with one primary, street-facing entrance.
- Design a new door to be compatible in scale, style, and material to the overall building or similar buildings in age and type.

Attached Garage

- Install a garage door that is compatible with the configuration, proportions, and material of those found in the Character Category.

An example of an attached garage in one of Redlands' custom-built postwar neighborhoods.

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D. Post-War Multi-Family Residential Development

Introduction & Context

Character Category D comprises multi-family residential development primarily constructed during the 1950s and 1960s. This Character Category is concentrated west of Downtown Redlands and includes one- and two-story, small-scale multi-family properties, such as duplexes, courtyard apartments, and garden apartments. Some single-family residences are interspersed with the duplex properties, which are single-family in appearance. Character Category D features wide, curvilinear streets, concrete curbs and sidewalks, and uniform front and side setbacks. Whereas lots containing duplexes and courtyard apartments are relatively modest, lots with garden apartments are large to accommodate multiple buildings. Duplex buildings are oriented toward and parallel to the street. In the case of courtyard and garden apartments, some units and/or buildings in the complex face a landscaped courtyard. Both attached and detached, multi-car garages are present in this Character Category; those that are detached are located at the rear of the property. Driveways provide vehicular access to garages, and concrete walkways provide access to the primary entrance from the driveway or sidewalk. Front yards are landscaped, and front yard fences are largely nonexistent.

A multi-family residential development in west Redlands.

A multi-family residential development in southwest Redlands.

Buildings in this Character Category are typically one to two stories in height. Front façades are less articulated, with subdued entryways and minimal ornamentation. Buildings are primarily clad in wood and/or stucco, sometimes with masonry accent cladding. Minimal Traditional and Minimal Ranch are the predominant architectural styles.

An example of a postwar duplex in Redlands.

D. Post-War Multi-Family Residential Development

Guidelines for the Treatment of Site Design Elements

Building Placement

- Place the building within the established range of front setbacks on the block.

Side Setbacks

- Provide side setbacks in the range of those seen on the block. Setbacks may vary depending on the location of the garage and placement of the driveway.

Orientation

- A duplex building should be parallel to and oriented toward the street.
- A courtyard apartment or garden apartment may have units and/or buildings oriented toward a landscaped court. The building/complex may be perpendicular or parallel to the street.

Garage Placement

- Conform to the typical garage placement present on the adjacent properties.
- If neighboring garages are attached, the building's garage should be attached.
- If surrounding garages are detached, the building's garage should also be detached. A detached garage should be placed at the rear of the property whenever feasible. If siting the garage entirely behind the building is not feasible, set the garage back from the primary façade so that it remains subordinate to the building.

Setbacks may vary in Redlands' multi-family residential developments.

An attached garage on a postwar duplex.

D. Post-War Multi-Family Residential Development

Guidelines for the Treatment of Site Design Elements

Pedestrian access to this garden apartment complex is provided via a paved walkway.

Postwar multi-family complexes typically have open front yards.

Vehicular Access

- Provide vehicular access to the attached/detached garage via a driveway.
- Where an alley is present, a detached garage should be accessed via the alley, rather than a driveway. Avoid adding curb cuts and driveways when they are not present on the block in order to maintain the original streetscape and yard patterns in the area.

Pedestrian Access

- Provide a direct connection from the sidewalk to the building's primary entrance via a paved pathway through the front yard.
- Where apartment units face an interior court, each unit should be connected to an internal pathway system that ultimately leads to the sidewalk.

Front Yard Fence

- As most front yards in this Character Category do not retain fences, a front yard fence is discouraged. However, if a front yard fence is necessary or desired, the fence should be compatible with the architectural style of the building.
- The front yard fence should generally be constructed of wood, low in scale, and visually transparent.

Retaining Wall

- A retaining wall, if required, should be designed to match other existing retaining walls in this Character Category and should be finished in the same material as the house (typically stucco or stone).

D. Post-War Multi-Family Residential Development

Guidelines for the Treatment of Building Design Elements

Scale and Massing

- Design the building to be compatible with the scale and massing of the predominantly one- and two-story multi-family properties in the Character Category.

Roof Form

- The building should be designed with a low- to medium- pitch, flat, gable, or hipped roof, compatible with the architectural style of the building and other buildings in the area.

Façade Composition

- Design the building so that its façades, particularly its primary façade and those most visible from the public right-of-way, retain similar proportions, fenestration pattern, and level of articulation as others in the Character Category.
- Applied ornamentation should be minimal in Character Category D.

Entrance Porch or Stoop

- Incorporate an entrance porch or stoop into the primary façade of the building.
- The porch or stoop should be modest in scale, with minimal articulation.

Exterior Materials

- Apply a primary cladding material that is compatible with the wood siding and stucco typically present in the Character Category. If a substitute material is used, choose a material that is similar in finish, texture, and overall appearance as wood or stucco siding.

An example of a two-story building, common in Redlands' postwar multi-family developments.

Postwar apartments are typically low in scale and compatible with a single-family residential context.

D. Post-War Multi-Family Residential Development

Guidelines for the Treatment of Building Design Elements

An example of aluminum slider windows, typical of Redlands' postwar multi-family development.

Windows

- Design a new window to be compatible in scale, style, and material to the overall building or similar buildings in age and type.
- A typical window in this Character Category has a horizontal orientation and is grouped symmetrically across the multiple units of the building. A window may be wood double-hung, steel casement, or an aluminum slider depending on the age and style of the building.
- An awning may be appropriate if applied in a consistent manner.

Doors

- Design the building with two or more entrances.
- The building's entrance(s) may be located at the front or side of the building.
- Design a new door to be compatible in scale, style, and material to the overall building or similar buildings in age and type.
- A typical door in this Character Category is a single, solid wood door with no paneling or simple geometric paneling. Doors may be grouped in pairs or in symmetrical arrangements with the windows.
- An awning may be appropriate if applied in a consistent manner.

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E. Downtown Commercial Development

Introduction & Context

Character Category E encompasses Redlands' Downtown commercial development, dating from the turn of the 20th century to the 1960s. This Character Category is defined by small-scale commercial properties, including mixed-use buildings, retail/office buildings, restaurants, and banks. This Character Category is defined by its gridded street pattern, paved narrow streets, and wide sidewalks. Lots are narrow, and buildings sit flush with the sidewalk, creating a strong street wall presence and sidewalk edge. Onsite parking is minimal. Where it is provided, parking is located behind buildings or on side lots.

Downtown Redlands commercial corridor.

Commercial development in Redlands Mall.

Buildings in Character Category E are primarily one to two stories in height. They are rectangular in form and are sheltered by flat roofs. Masonry and/or stucco cladding are the primary building materials. Large ground story display windows provide a visual connection to the interior, and buildings are accessed by street-facing entrances (most buildings contain multiple entrances). Canopies, awnings, wall-mounted signage, and articulated parapet walls and cornices are common characteristics of buildings in this Character Category. Architectural styles vary in the Downtown commercial area and include prewar classical interpretations as well as various iterations of postwar modernism.

Historic Districts within Character Category E

One of Redlands' existing designated Historic Districts falls under Character Category E:

- Redlands Santa Fe Depot District

The eastern portion of this National Register Historic District (east of Orange Street) is largely commercial in nature, while the western portion is primarily industrial. Refer to Chapter 7 for design guidelines specific to the industrial portion of this Historic District and to Chapter 8 for design guidelines on new construction in Historic Districts.

E. Downtown Commercial Development

Guidelines for the Treatment of Site Design Elements

Building Placement

- Place the building flush with the sidewalk to retain the commercial street wall presence and continuity of the sidewalk edge.

Side Setbacks

- Side setbacks should be minimized to maintain continuity of the sidewalk edge.

Orientation

- The building should be parallel to and oriented toward the street.

Pedestrian Access

- Pedestrian access should be provided at the building's primary entrance, located at the sidewalk.

Parking

- Parking should be located at the rear of the building, or to the side when rear parking is not feasible, in order to maintain the building's pedestrian orientation and relationship with the sidewalk.

The flush façades of these commercial buildings creates a uniform streetwall.

Storefronts are parallel to and oriented toward the street in the city's commercial areas.

E. Downtown Commercial Development

Guidelines for the Treatment of Building Design Elements

Most commercial buildings in Redlands have flat roofs.

An example of a one-story commercial building, typical of Redlands' downtown commercial development.

Scale and Massing

- Design the building to be compatible with the scale and massing of other one- and two-story commercial buildings in the area. Consider stepping back or using other articulation methods to modulate floors above two stories, in order to maintain the pedestrian scale of the Character Category.
- The building should be composed of simple, rectangular forms that are consistent with the form and massing of adjacent buildings in the area.

Roof Form

- The building should be designed with a flat roof to maintain the commercial character of the area.

Façade Composition

- Design the building so that its façades, particularly its primary façade, retain similar proportions, fenestration pattern, and level of articulation as others in the Character Category.
- Design the building to have a similar solid-to-void ratio as others in the area. Transparency should be highest at the first story, ground level, in order to provide a connection to the interior for pedestrians and passing traffic.
- The front façade should be divided into smaller parts through use of display windows, bulkheads, stringcourses, and/or other decorative detailing. Details should be simple in design and should complement, rather than visually compete with, the character of adjacent buildings. Long unarticulated wall planes should be avoided.

E. Downtown Commercial Development

Guidelines for the Treatment of Building Design Elements

Entrance(s)

- Design the building with one or more entrances.
- The building's entrance(s) may be recessed or flush with the sidewalk.
- The entrance(s) should be articulated through use of decorative surrounds and/or other architectural detailing.

Exterior Materials

- Utilize a primary cladding material that is compatible with the typical masonry and stucco used on buildings in the Character Category. If a substitute material is used, choose a material that is similar in finish, texture, and overall appearance as masonry or stucco.

An example of a recessed storefront entrance, a common characteristic of the city's downtown commercial buildings.

Brick and stucco are the primary materials used in Redlands' downtown commercial buildings.

F. Auto-Oriented Commercial Development

Introduction & Context

Character Category F encompasses Redlands' auto-oriented commercial development, including restaurants, walk-up/drive-thru food stands, auto repair shops, gas stations, motels, retail establishments, and various other property types. This Character Category encompasses low-scale commercial properties concentrated on major thoroughfares (particularly Redlands Boulevard/old Highway 99). While most properties date to the post-World War II period, some were constructed in the 1920s and 1930s as automobile use proliferated throughout the city. In contrast to the pedestrian-oriented buildings of the Downtown commercial core (Character Category E), the commercial properties of Character Category F were designed to attract and accommodate customers arriving via car.

An auto-oriented commercial development along Redlands Boulevard.

An auto-oriented commercial corridor.

Character Category F is identified by its wide, heavily trafficked streets. Lot sizes and front and side setbacks vary. Buildings are typically oriented toward the street or their associated parking lot. They are often accompanied by ample parking and prominent street-facing signage. Buildings are primarily one story in height and feature flat or low-pitched roofs, often with wide eaves; extensive glazing; and stucco cladding. Most properties in this Character Category are modest examples of the Mid-Century Modern style.

An automobile service center along Redlands Boulevard.

F. Auto-Oriented Commercial Development

Guidelines for the Treatment of Site Design Elements

Building Placement

- As Character Category F includes a range of front setbacks, variety in front setbacks is appropriate.

Side Setbacks

- Promote flexibility in the size of side setbacks. Side setbacks do not need to be equal in width.

Orientation

- Orient the building to face the street or associated parking lot. The building does not need to be parallel with the street.

Pedestrian Access

- The building's primary entrance should be designed to open directly onto the sidewalk or pathway leading to the parking lot.

Parking

- Parking should be prominently featured, fronting the building and/or wrapping around the sides and rear of the property.

Auto-oriented buildings typically face the street or associated parking lot.

Parking at this auto-oriented building is prominently featured at the front of the building.

F. Auto-Oriented Commercial Development

Guidelines for the Treatment of Building Design Elements

A simple, rectangular auto-oriented building.

A row of low-scale commercial buildings, typical of the city's auto-oriented commercial development.

Scale and Massing

- Design the building to be compatible with the scale and massing of other one-story, low-scale commercial buildings in the Character Category.
- The building should be composed of simple, rectangular forms that are consistent with the form and massing of adjacent commercial development.

Roof Form

- The building should be designed with a flat- or low-pitch roof to maintain the commercial character of the area.
- Wide eaves may be incorporated into the roof design so that the building blends in with the postwar modern aesthetic of surrounding properties.

Façade Composition

- Design the building so that its façades, particularly its primary façade, retain similar proportions, fenestration pattern, and level of articulation as others in the Character Category.
- Design the building to have a similar solid-to-void ratio as others in the area. The building should retain extensive transparent glazing at the primary façade in order to provide a connection to the interior for passing traffic.
- The front façade should be divided into smaller parts through use of glazing, canopies, and other article/horizontal elements. Long unarticulated wall planes should be avoided; however, applied ornamentation should be minimal.

F. Auto-Oriented Commercial Development

Guidelines for the Treatment of Building Design Elements

Entrance(s)

- Design the building with one or more entrances.
- The building's entrance(s) may be recessed or flush with the façade.
- The entrance's should generally be understated, typical of auto-oriented commercial buildings.

Exterior Materials

- Utilize a primary cladding material that is compatible with the typical stucco used on buildings in the area.

The primary entrance at this commercial building is understated, incorporated into the glazing system surrounding it.

Stucco is the primary cladding material used on the city's auto-oriented commerical buildings.

G. Early Industrial Development

Introduction & Context

Character Category G comprises Redlands' early industrial development, which is located in Downtown and oriented east-west along the former Santa Fe Railroad line. It includes small-scale industrial properties on the west side of Orange Street. This Character Category is identified by its largely rectilinear street grid pattern. Street widths vary, and concrete curbs and sidewalks are present throughout. Lots are large and irregularly shaped, and front and side setbacks vary.

Buildings in this Character Category are one to two stories in height. The scale, massing, roof forms, and façade composition of industrial properties differ; stucco and masonry are the predominant cladding materials. While a vernacular industrial aesthetic is most prevalent throughout, Character Category G also includes more refined, classically inspired buildings (i.e. the Santa Fe Depot building).

The Redlands Santa Fe Train Depot.

Historic Districts within Character Category G

One of Redlands' existing designated Historic Districts falls under Character Category G:

- Redlands Santa Fe Depot District

The western portion of this National Register Historic District (west of Orange Street) is largely industrial in nature, while the eastern portion is primarily commercial. Refer to Chapter 7 for design guidelines specific to the industrial portion of this Historic District and to Chapter 8 for design guidelines on new construction in industrial Historic Districts.

Early industrial development occurred along the Santa Fe Railroad line.

G. Early Industrial Development

Guidelines for the Treatment of Site Design Elements

Building Placement

- Variety in front setbacks in appropriate in Character Category G.

Side Setbacks

- As this area was historically characterized by large expanses of vacant land, side setbacks are flexible and open space, including parking and/or landscaped areas, is encouraged.

Orientation

- A building in Character Category G may be oriented toward the street or associated parking lot/landscaped space.

Pedestrian Access

- A building's entrance may be designed to open directly onto the sidewalk or a path leading to a parking lot in this area.

Parking

- Parking may be provided at the front, side, or rear of a building in this area.

Industrial buildings are often surrounded by expanses of open land.

An example of side parking at an industrial building.

G. Early Industrial Development

Guidelines for the Treatment of Building Design Elements

Brick pilasters provide some articulation to this industrial building.

Large, utilitarian openings are characteristic of industrial architecture.

Brick is a prominent material in Redlands' industrial architecture.

Scale and Massing

- Design the building to be compatible with the scale and massing of other one- and two-story industrial buildings in the area.
- The building should be composed of simple, rectangular forms that are consistent with the form and massing of other properties in Character Category G.

Roof Form

- The building's roofline should be compatible with the roof lines of adjacent historic properties.
- A building in this Character Category may be designed with a sawtooth roof or incorporate roof monitors, in order to blend in with its surrounding industrial properties.

Façade Composition

- Design the building so that its façades, particularly its primary façade, retain similar proportions, fenestration pattern, and level of articulation as others in the Character Category.
- The façade composition of buildings in this area vary significantly. Thus, a building may be designed with a range of compatible façade configurations. Long unarticulated wall planes should be avoided; however, applied decoration should be minimal.

Entrance(s)

- A building in Character Category G may be designed with one or more entrances. The building's entrance(s) may be recessed or flush with the primary façade.
- A building's entrance should generally be understated and utilitarian in appearance, in line with the typically modest entrances of industrial buildings in this area.

Exterior Materials

- Utilize a primary cladding material that is compatible with the typical stucco and masonry used on buildings in the area. If a substitute material is used, choose a material that is similar in finish, texture, and overall appearance as masonry or stucco.

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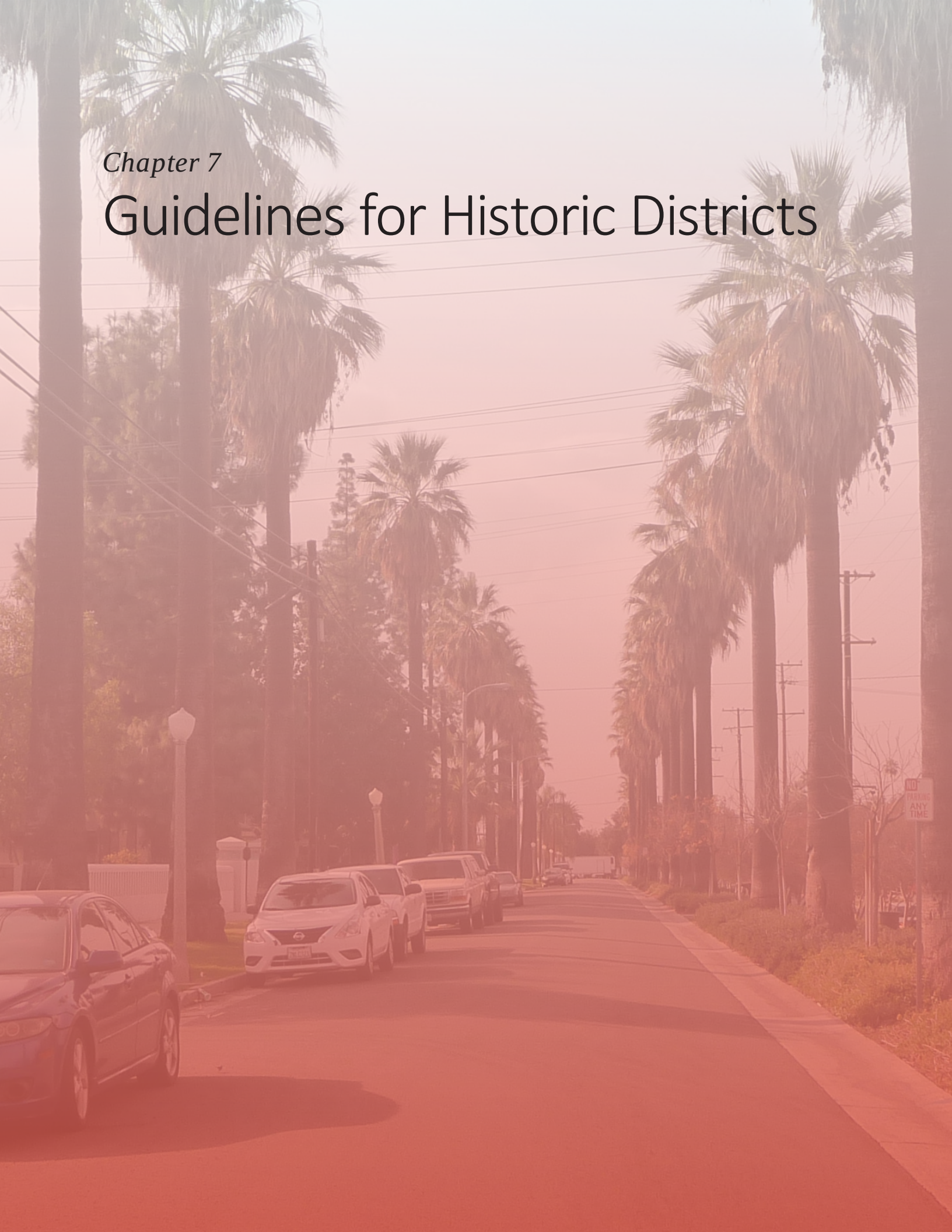
Chapter 7

Guidelines for Historic Districts



Chapter Overview

As of 2018, Redlands contains nine historic districts. Most are locally designated, while one (the Redlands Santa Fe Depot Historic District) is a National Register of Historic Places District, and another (the Smiley Park Historic District) is a National Register district as well as a local Historic and Scenic District. The level of designation does not matter in terms of the design guidelines presented in this chapter. Chapter 7 provides a description and list of character-defining features (architectural styles, common building materials, and site and landscape features) for each district, to help owners of district properties recognize which characteristics of their district are most crucial to maintain and preserve.

Use This Chapter If...

- You live in or are planning to buy in a historic district and want to understand what makes the neighborhood unique and important to Redlands' history.
- You are pursuing a restoration or rehabilitation of your contributing historic building and need to know which design characteristics and site features are important to preserve.

What's Inside...

Redlands Santa Fe Depot District
Eureka Street Historic District
West Highland Avenue Historic & Scenic District
Early Redlands Historic & Scenic District
Normandie Court Historic District
East Fern Avenue Historic & Scenic District
Garden Hill Historic & Scenic District
La Verne Street Historic & Scenic District
Smiley Park Historic & Scenic District

Redlands Santa Fe Depot District

District Description

The Redlands Santa Fe Depot District is a National Register-listed district near Downtown Redlands. The topography of the district is flat, and streets follow an orthogonal grid pattern, in line with the cardinal directions. The district retains an assortment of small-scale industrial properties and early commercial storefronts that developed along the historic Santa Fe Railroad line from the 1880s to the early 1940s. The majority of the industrial buildings are located on the west side of Orange Street, which runs north-south through the district. Most of the buildings on the east side of Orange Street are commercial, with some industrial properties fronting on 5th Street. Most industrial buildings are sited on large irregular-shaped lots and are separated by sections of undeveloped, open space. Commercial buildings on the east side of Orange Street fill narrow rectangular lots and sit flush with the sidewalk, forming a cohesive street wall.

The district is significant for its association with Redlands' early industrial and commercial development and as a "significant architectural assemblage containing numerous individually distinguished buildings and the works of notable local architects and designers," per the district's National Register nomination. The Redlands Santa Fe Depot District is the only non-residential historic district in the city.

Aerial view of the Redlands Santa Fe Depot District looking north.

Is my property in this district?

To find out whether your property is in the Redlands Santa Fe Depot National Register District, check the City of Redlands List of Historic Resources (https://www.cityofredlands.org/city-hall/departments/development_services/planning_division/historic_preservation)

Redlands Santa Fe Depot District

Character-Defining Features

Architectural Styles & Building Types

- Utilitarian/Vernacular
- Classical Revival

Refer to Appendix B for more information regarding the architectural styles and vernacular building types included in this district.

Building Materials

- Roofing: rolled asphalt/built-up, metal (standing seam or corrugated), clay tile
- Wall Cladding: brick, stucco
- Foundations: concrete, brick
- Windows/Doors: wood, metal

Refer to Ch. 3 - Guidelines for the Preservation, Rehabilitation, & Restoration of Historic Exterior Building Materials for information related to the treatment of character-defining materials in this district.

The historic Santa Fe Depot.

Site & Landscape Features

- Arrangement of buildings along the historic Santa Fe Railroad line, with primarily industrial buildings west of Orange Street and primarily commercial buildings on the east side of Orange.
- Large, irregularly shaped lots, varied setbacks, and large sections of open space on the west side of Orange Street.
- Narrow, consistent-sized lots, with buildings filling the entire lot, on the east side of Orange Street.
- Concrete sidewalks

Refer to Ch. 9 - Guidelines for Site and Landscape Design for information related to the treatment of character-defining site ad landscape features in this district.

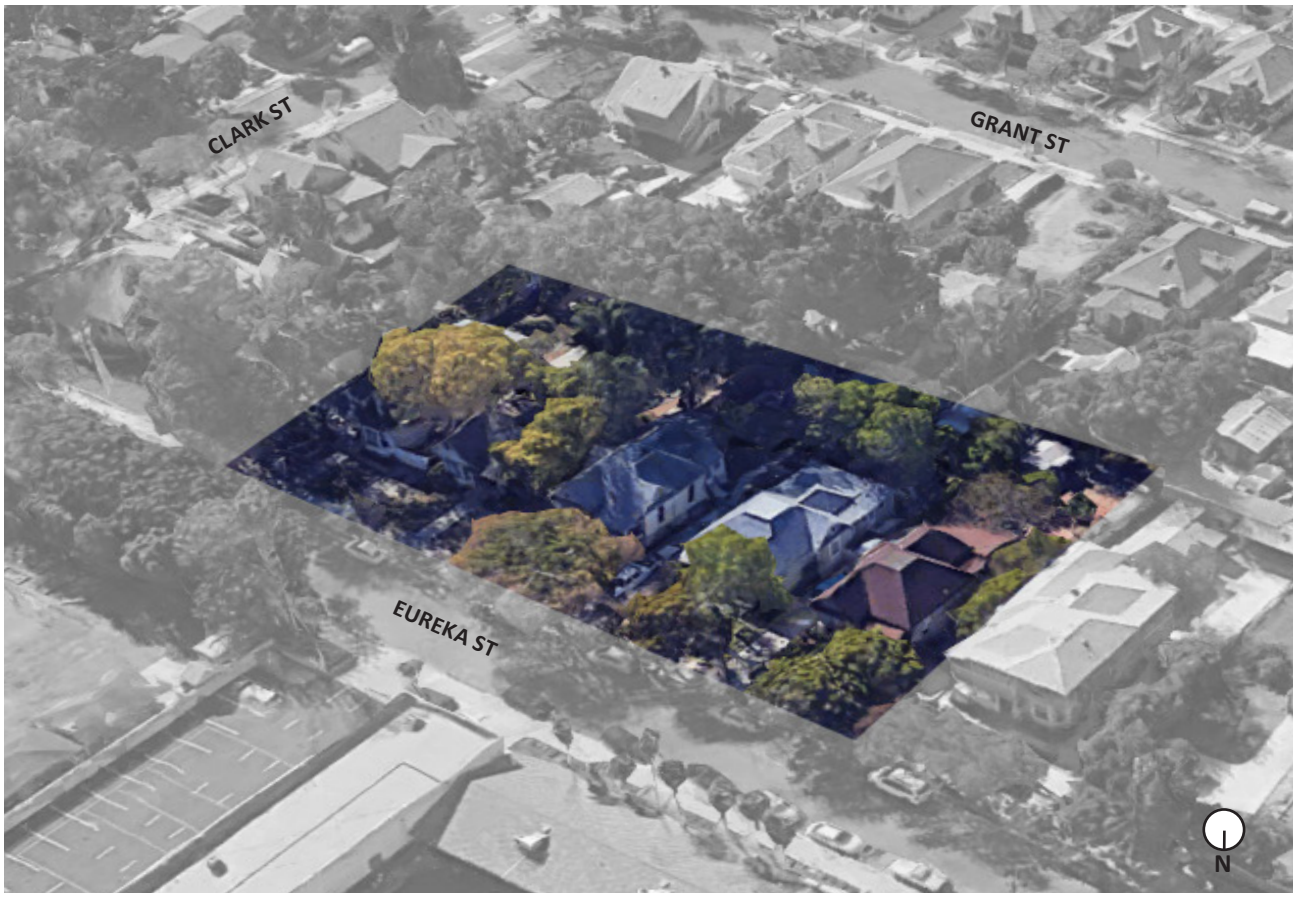
A view looking north down the historic Orange Street commercial corridor.

Eureka Street Historic District

District Description

The Eureka Street Historic District is a locally designated residential district south of Downtown Redlands. The district includes five properties on the west side of Eureka Street between Olive Avenue and Clark Street. The topography of the area is flat, and Eureka Street is linear, running at a northwest-southeast angle, in line with the skewed street grid that characterizes the area immediately south of Downtown. The district is composed of one- and two-story, single-family residences, sited on small lots with uniform setbacks. Front yards, bounded by cut stone edging, are traversed by concrete walkways leading from the sidewalk to front porches. Narrow concrete driveways extend along the north side of each house and lead to detached garages. This block of Eureka Street features cut stone curbs, cast stone streetlights, and street trees.

Developed between 1890 and 1900, the Eureka Street Historic District was part of the Bonnie Brae subdivision. It is distinguished by its cohesive collection of Victorian-era Vernacular buildings, indicative of Redlands' earliest residential development south of Downtown. This small historic district was Redlands' first, designated in 1981.



Aerial view of Eureka Street Historic District looking south.

Is my property in this district?

To find out whether your property is in the Garden Hill Historic & Scenic District, check the City of Redlands List of Historic Resources (https://www.cityofredlands.org/city-hall/departments/development_services/planning_division/historic_preservation)

Eureka Street Historic District

Character-Defining Features

Architectural Styles & Building Types

- Victorian-era Vernacular Cottage

Refer to Appendix B for more information regarding the architectural styles and vernacular building types included in this district.

A Victorian style cottage.

Building Materials

- Roofing: composition shingle
- Wall Cladding: wood shingle/clapboard
- Foundations: concrete, wood post and pier
- Windows/Doors: wood

Refer to Ch. 3 - Guidelines for the Preservation, Rehabilitation, & Restoration of Historic Exterior Building Materials for information related to the treatment of character-defining materials in this district.

An example of a clapboard-clad house.

Site & Landscape Features

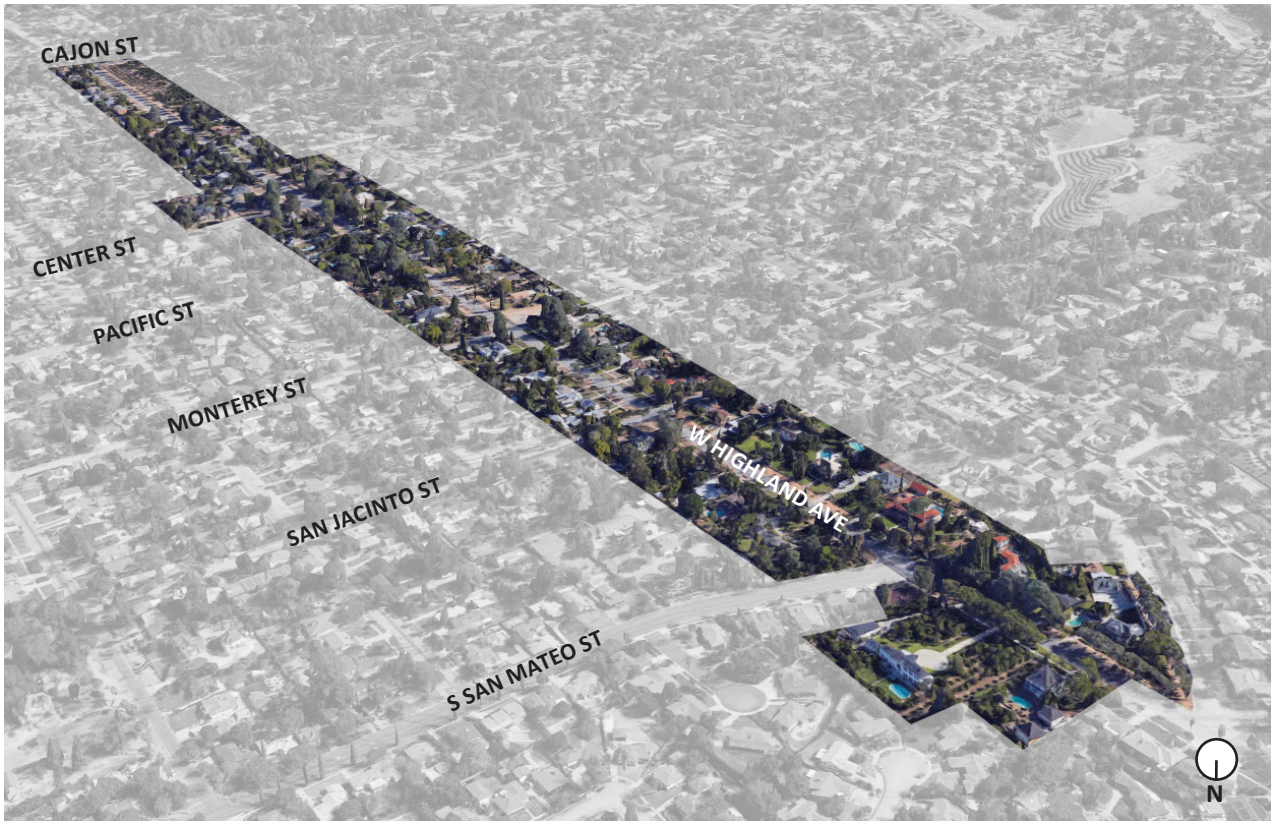
- Linear street running at the northwest-southeast angle
- Uniform lots (narrow and rectangular)
- Orientation of residences (primary façades and entrances face the street)
- Consistent setbacks
- Front yards with cut stone edging
- Concrete walkways leading from the street to the primary entrance
- Narrow concrete driveways
- Detached garages
- Concrete sidewalks
- Cut stone curbs
- Cast stone streetlights
- Street trees

Refer to Ch. 9 - Guidelines for Site and Landscape Design for information related to the treatment of character-defining site and landscape features in this district.

West Highland Avenue Historic & Scenic District

District Description

The West Highland Avenue Historic and Scenic District is a locally designated residential district in south Redlands. The district comprises properties on both sides of West Highland Avenue between Cajon Street and Cedar Avenue. The topography of the district is flat. Highland Avenue is wide and linear, running at a northeast-southwest angle, in line with the skewed street grid characterizing the area immediately south of Downtown. The district consists of one- and two-story, single-family residences sited on large irregular lots with deep setbacks and landscaped front yards. Residences range in scale and architectural style, but most are grand two-story buildings designed in various Victorian-era and Arts and Crafts sub-styles. Properties were largely constructed between the late 1880s and the 1920s; however, a substantial amount of post-World War II infill is also present, primarily on the south side of Highland Avenue, where an orange grove was subdivided. Most houses are accessed via concrete walkways connecting to the sidewalk, and concrete driveways lead to detached garages. Highland Avenue is characterized by its concrete sidewalks (in some places, wide dirt paths are present instead of sidewalks); cut stone curbs; cast stone streetlights; street trees (palms are dominant); and an orange grove (part of Prospect Park) on the south side of the street, at the east end of the district. A cut stone wall at the northeast corner of Highland Avenue and San Mateo Street marks the boundary of an early estate (no longer extant).



Aerial view of West Highland Ave Historic & Scenic District, looking south.

The West Highland Avenue district was subdivided by Redlands' founders Edward Judson and Frank Brown as part of the Residence Tract in 1886. Following the Redlands Domestic Water Company's announcement to service the tract in 1887, the neighborhood experienced a surge in construction during the late 1880s and continuing through the early 20th century. Highland Avenue was originally home to some of Redlands' most prestigious residents, including oil magnates, land developers, a newspaper publisher, and both of Redlands' founders. During its early development, the street had been nicknamed the "Butler Belt", in recognition of its numerous residences attended to by domestic servants. The historic district is unique for its collection of large, highly articulated Victorian-era and Arts and Crafts buildings, reflecting the city's early development as a winter home and recreation destination for the wealthy.

West Highland Avenue Historic & Scenic District

Character-Defining Features

Architectural Styles & Building Types

- Queen Anne
- Victorian-era Vernacular Cottage
- Craftsman
- Shingle
- American Colonial Revival
- Spanish Colonial Revival
- Mediterranean Revival

Refer to Appendix B for more information regarding the architectural styles and vernacular building types included in this district.

The West Highland Avenue Historic District is characterized by a variety of sizes and styles.

Building Materials

- Roofing: composition shingle, wood shingle, clay tile
- Wall Cladding: wood shingle/clapboard, stucco
- Foundations: concrete, stone, wood post and pier
- Windows/Doors: wood

Refer to Ch. 3 - Guidelines for the Preservation, Rehabilitation, & Restoration of Historic Exterior Building Materials for information related to the treatment of character-defining materials in this district.

An American Colonial Revival style house.

A view north down West Highland Avenue.

West Highland Avenue Historic & Scenic District

Character-Defining Features

A broad dirt path that spans the southern section of the historic district.

A large Craftsman style house.

Site & Landscape Features

- Wide linear street running at a northeast-southwest angle
- Large, irregular lots
- Orientation of residences (primary façades and entrances face the street)
- Inconsistent (but generally deep) setbacks
- Landscaped front yards, some with low concrete or cut stone retaining/perimeter walls
- Concrete walkways leading from the street to the primary entrance
- Concrete driveways (widths and configurations vary)
- Detached garages
- Concrete sidewalks and wide dirt paths
- Cut stone curbs
- Cast stone streetlights
- Street trees (various species, but palms are dominant)
- Cut stone wall at the northeast corner of Highland Avenue and San Mateo Street
- Orange grove comprising the east end of the district, on the south side of Highland Avenue, at Prospect Park

Refer to Ch. 9 - Guidelines for Site and Landscape Design for information related to the treatment of character-defining site and landscape features in this district.

Is my property in this district?

To find out whether your property is in the West Highland Avenue Historic & Scenic District, check the City of Redlands List of Historic Resources (https://www.cityofredlands.org/city-hall/departments/development_services/planning_division/historic_preservation)

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Early Redlands Historic & Scenic District

District Description

The Early Redlands Historic and Scenic District is a locally designated residential district south of Downtown Redlands. The historic district contains buildings on both sides of 4th and Cajon streets between Fern and Cypress avenues. The topography of the district is flat, and 4th Street and Cajon Street run at a northwest-southeast angle, in line with the skewed street grid that typifies the area south of the Downtown commercial core. The district primarily consists of one- and two-story, single-family residences, as well as a few small-scale multi-family properties, houses that have been adaptively reused for commercial purposes, and some postwar commercial infill present on Cajon. Buildings are sited on relatively uniform lots (lots are larger on Cajon, which is much wider than 4th) with consistent setbacks and landscaped front yards (some yards bounded by cut stone or concrete edging). Developed primarily between the 1890s and 1910, most residences are designed in myriad sub-styles of the Victorian-era and Arts and Crafts idioms, with some Period Revival-style houses from the 1920s. Though generally constructed during the same time period, the residences on Cajon Street are larger and more highly articulated than the relatively modest houses on 4th Street, a result of Cajon's development as a prominent residential thoroughfare historically occupied by a streetcar line. Houses are primarily accessed via concrete walkways connecting to the sidewalk, and concrete driveways lead to detached garages. (An alley provides access to garages on the north side of 4th and the south side of Cajon.) The district features cut stone curbs, cast stone streetlights, and street trees (palms are most prevalent).

View looking northwest up Cajon and 4th Streets.

The historic district is distinguished by its relatively intact collection of Victorian-era and Arts and Crafts residential properties, indicative of the spread of residential development south of Downtown at the turn of the 20th century. The grander scale and more highly articulated styles of residences on Cajon Street reflect its development as a prominent thoroughfare, historically occupied by a streetcar line.

Early Redlands Historic & Scenic District

Character-Defining Features

Architectural Styles & Building Types

- Queen Anne
- Victorian-era Vernacular Cottage
- Craftsman
- American Foursquare
- Shingle
- Spanish Colonial Revival

Refer to Appendix B for more information regarding the architectural styles and vernacular building types included in this district.

An American Foursquare style house.

Building Materials

- Roofing: composition shingle, wood shingle, clay tile
- Wall Cladding: wood shingle/clapboard, stucco
- Foundations: concrete, stone, wood post and pier
- Windows/Doors: wood

Refer to Ch. 3 - Guidelines for the Preservation, Rehabilitation, & Restoration of Historic Exterior Building Materials for information related to the treatment of character-defining materials in this district.

Is my property in this district?

To find out whether your property is in the Early Redlands Historic & Scenic District, check the City of Redlands List of Historic Resources (https://www.cityofredlands.org/city-hall/departments/development_services/planning_division/historic_preservation)

A row of Victorian style cottages.

Early Redlands Historic & Scenic District

Character-Defining Features

A Craftsman house.

Note the uniform side setbacks between this historic building and its neighbors.

Site & Landscape Features

- Wide linear street running at a northeast-southwest angle
- Substantial width of Cajon Street, indicative of its historic use as a streetcar thoroughfare
- Relatively uniform lots (larger lots on Cajon Street)
- Orientation of residences (primary façades and entrances face the street)
- Consistent setbacks
- Landscaped front yards, some with low concrete or cut stone retaining/perimeter walls
- Concrete walkways leading from the street to the primary entrance
- Narrow concrete driveways (some in the original "ribbon" style)
- Lack of driveways at properties on the north side of 4th Street and south side of Cajon Street
- Detached garages
- Concrete sidewalks
- Cut stone curbs
- Cast stone streetlights
- Street trees (various species, but palms are most prevalent)

Refer to Ch. 9 - Guidelines for Site and Landscape Design for information related to the treatment of character-defining site and landscape features in this district.

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Normandie Court Historic District

District Description

The Normandie Court Historic District is a locally designated residential district near the center of Redlands. The historic district comprises properties lining both sides of a narrow paved street known as Normandie Court. Normandie Court is entered off of Clark Street at its north end and culminates in a cul-de-sac at its south end. The topography of the area is flat, and Normandie Court runs at a northwest-southeast angle, in line with the skewed street grid characterizing the area south of Downtown. The district is composed of one- to one-and-a-half-story, single-family residences, sited on small lots with shallow uniform setbacks. Front yards, some of which are sloped, are traversed by short walkways with steps leading from the sidewalk to front entrance stoops. Narrow concrete driveways, some in their original "ribbon" configuration, extend along the side of each house and lead to detached garages.

The Normandie Court Historic District is unique for its cohesive collection of Storybook/French Norman Revival-style buildings developed by F.E. Corson and E.R. Hudson and constructed in 1926.

Aerial view of Normandie Court looking southeast.

Is my property in this district?

To find out whether your property is in the Normandie Court Historic District, check the City of Redlands List of Historic Resources (https://www.cityofredlands.org/city-hall/departments/development_services/planning_division/historic_preservation)

Normandie Court Historic District

Character-Defining Features

Architectural Styles

- Storybook/French Norman Revival

Refer to Appendix B for more information regarding the architectural styles and vernacular building types included in this district.

A Storybook/French Norman Revival style house.

Building Materials

- Roofing: composition shingle
- Wall Cladding: stucco
- Foundations: concrete
- Windows/Doors: wood

Refer to Ch. 3 - Guidelines for the Preservation, Rehabilitation, & Restoration of Historic Exterior Building Materials for information related to the treatment of character-defining materials in this district.

Narrow driveways lead to detached garages at the rear.

Site and Landscape Features

- Narrow, northwest-southeast linear street with cul-de-sac at the south end
- Uniform narrow lots, with residences closely spaced together
- Orientation of residences (primary façades and entrances face the street)
- Consistent shallow setbacks
- Landscape front yards, some of which are slightly sloped
- Walkways (some with steps) leading from the street to the primary entrance
- Narrow driveways (original driveways were “ribbon” style) with cut curbs
- Detached garages, most of which date to the construction of the houses
- Concrete sidewalks and curbs

Refer to Ch. 9 - Guidelines for Site and Landscape Design for information related to the treatment of character-defining site and landscape features in this district.

East Fern Avenue Historic & Scenic District

District Description

The East Fern Avenue Historic and Scenic District is a locally designated residential district south of Downtown Redlands. The district includes properties on both sides of East Fern Avenue, generally between La Paloma and La Verne streets. The topography of the district is flat, and Fern Avenue extends linearly at a northeast-southwest angle, in line with the skewed street grid that characterizes the area south of Downtown. The district primarily consists of one- and two-story, single-family residences sited on varying sized lots (lots larger on south side of Fern). Setbacks are largely consistent and feature landscaped front yards, some of which are elevated/sloped and bounded by concrete or stone retaining walls. Most residences were built between the early 1900s and the 1920s and were primarily designed in the Craftsman and Spanish Colonial Revival styles. Houses are generally large and highly articulated, a product of Fern Avenue's development as a prominent residential thoroughfare historically occupied by a streetcar line. Houses are accessed via concrete walkways linking to the sidewalk, and concrete driveways lead to detached garages. The district features cut stone curbs, cast stone streetlights, and street trees (palms are dominant).

Aerial view of East Fern Ave Historic & Scenic District.

The East Fern Avenue district is notable for its intact collection of Arts and Crafts and Period Revival houses, indicative of the expansion of residential development south of Downtown during the early 20th century. The grand scale and highly articulated styles of residences on Fern Avenue reflect its development as a prominent thoroughfare, historically occupied by a streetcar line.

East Fern Avenue Historic & Scenic District

Character-Defining Features

Architectural Styles

- Queen Anne
- Victorian-era Vernacular Cottage
- Craftsman
- American Foursquare
- Spanish Colonial Revival

Refer to Appendix B for more information regarding the architectural styles and vernacular building types included in this district.

Landscaped front yards are typical throughout the historic district.

Building Materials

- Roofing: composition shingle, clay tile
- Wall Cladding: wood shingle/clapboard, stucco
- Foundations: concrete, stone, brick
- Windows/Doors: wood

Refer to Ch. 3 - Guidelines for the Preservation, Rehabilitation, & Restoration of Historic Exterior Building Materials for information related to the treatment of character-defining materials in this district.

A row of Craftsman bungalows.

East Fern Avenue Historic & Scenic District

Character-Defining Features

A Spanish Colonial Revival style house.

Paved sidewalks and walkways are a typical feature of the historic district.

Site and Landscape Features

- Wide linear street running at a northeast-southwest angle
- Varying lot sizes, with generally larger lots on the south side of Fern Avenue
- Orientation of residences (primary façades and entrances face the street)
- Generally consistent setbacks
- Landscaped front yards, some of which are elevated/sloped and bounded by concrete or stone retaining walls
- Concrete walkways leading from the street to the primary entrance
- Narrow concrete driveways
- Detached garages
- Concrete sidewalks
- Cut stone curbs
- Cast stone streetlights
- Street trees (various species, but palms are dominant)

Refer to Ch. 9 - Guidelines for Site and Landscape Design for information related to the treatment of character-defining site and landscape features in this district.

Is my property in this district?

To find out whether your property is in the East Fern Avenue Historic & Scenic District, check the City of Redlands List of Historic Resources (https://www.cityofredlands.org/city-hall/departments/development_services/planning_division/historic_preservation)

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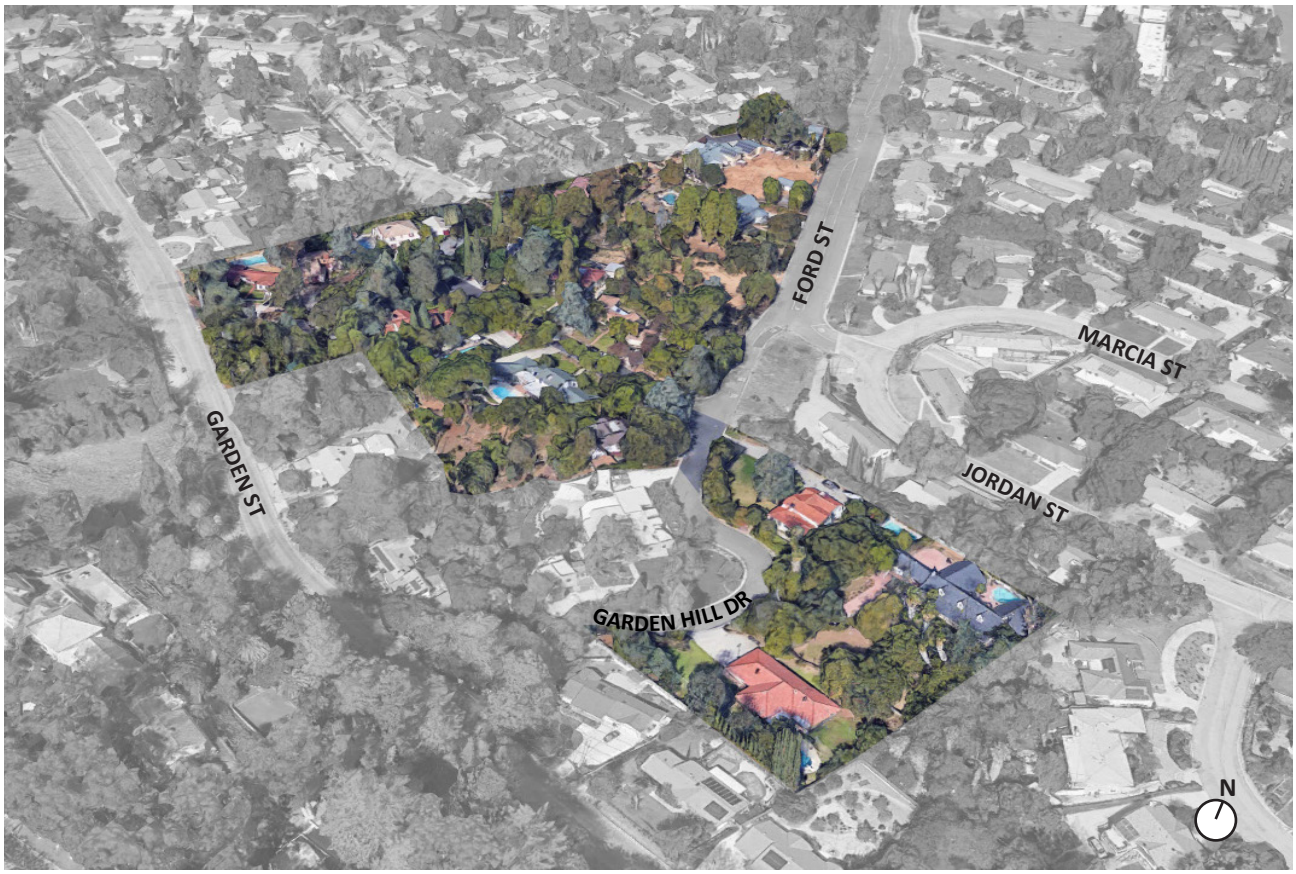
Garden Hill Historic & Scenic District

District Description

The Garden Hill Historic and Scenic District is a locally designated residential district in south Redlands. Properties on both sides of Garden Hill Drive comprise the district. The topography of the district is hilly, and Garden Hill Drive is curvilinear, forming a "U" shape, with both ends providing egress onto Garden Street. The district comprises one- and two-story, single-family residences on irregular-shaped lots. Setbacks are inconsistent and front yard landscaping is lush. Developed primarily between the late 1910s and 1920s, most residences in the district were built in various Period Revival styles, including Spanish Colonial Revival, American Colonial Revival, and Tudor Revival. The district is characterized by its concrete entrance markers, lack of sidewalks, cut stone curbs, and stone retaining walls.

The Garden Hill district was subdivided as the Garden Court tract by noted local developer Elliott A. Moore. By the late 1910s, Moore had begun constructing residences on the tract's large residential lots, including one for himself. The historic district is notable for its intact collection of Period Revival houses, reflecting the expansion of residential development in south Redlands during the early 20th century.



Aerial looking up Ford Street toward the northwest.

Is my property in this district?

To find out whether your property is in the Garden Hill Historic & Scenic District, check the City of Redlands List of Historic Resources (https://www.cityofredlands.org/city-hall/departments/development_services/planning_division/historic_preservation)

Garden Hill Historic & Scenic District

Character-Defining Features

Architectural Styles & Building Types

- Spanish Colonial Revival
- American Colonial Revival
- Tudor Revival

Refer to Appendix B for more information regarding the architectural styles and vernacular building types included in this district.

A Spanish Colonial Revival style house is setback within the hilly topography of the historic district.

Building Materials

- Roofing: composition shingle, clay tile
- Wall Cladding: wood clapboard, stucco
- Foundations: concrete
- Windows/Doors: wood

Refer to Ch. 3 - Guidelines for the Preservation, Rehabilitation, & Restoration of Historic Exterior Building Materials for information related to the treatment of character-defining materials in this district.

An American Colonial Revival style house.

Site and Landscape Features

- Hilly topography
- Curvilinear street
- Large irregular lot sizes
- Inconsistent setbacks
- Varied orientation of residences (primary façades and entrances may or may not face the street)
- Manicured lawns and lush, mature landscaping
- Driveways of varying widths
- Attached and detached garages
- Concrete entrance markers
- Lack of sidewalks
- Cut stone curbs and stone retaining walls in some areas

Refer to Ch. 9 - Guidelines for Site and Landscape Design for information related to the treatment of character-defining site and landscape features in this district.

A lack of sidewalks is typical of this historic district.

La Verne Street Historic & Scenic District

District Description

The La Verne Street Historic District is a locally designated residential district south of Downtown Redlands. The district includes properties on both sides of La Verne Street between Fern Avenue and Home Place. The topography of the district is flat, and La Verne Street extends linearly at a northwest-southeast angle, in line with the skewed street grid south of Downtown. The district is composed of one- and two-story, single-family residences sited on small lots with uniform setbacks and landscaped front yards. Houses are accessed via concrete walkways connecting to the sidewalk, and narrow concrete driveways lead to detached garages. La Verne Street is characterized by its cut stone curbs and street trees of various species.

Developed primarily between the 1890s and 1910, the La Verne Street district is distinguished by its cohesive collection of mostly Victorian-era Vernacular buildings, indicative of Redlands' earliest residential development in the Downtown area.

Aerial view looking northwest up La Verne Street.

Is my property in this district?

To find out whether your property is in the La Verne Historic & Scenic District, check the City of Redlands List of Historic Resources (https://www.cityofredlands.org/city-hall/departments/development_services/planning_division/historic_preservation)

La Verne Street Historic & Scenic District

Character-Defining Features

Architectural Styles & Building Types

- Victorian-era Vernacular Cottage
- Craftsman
- Spanish Colonial Revival

Refer to Appendix B for more information regarding the architectural styles and vernacular building types included in this district.

Building Materials

- Roofing: composition shingle
- Wall Cladding: wood shingle/clapboard, stucco
- Foundations: concrete, stone, wood post and pier
- Windows/Doors: wood

Refer to Ch. 3 - Guidelines for the Preservation, Rehabilitation, & Restoration of Historic Exterior Building Materials for information related to the treatment of character-defining materials in this district.

Site and Landscape Features

- Linear street running at a northwest-southeast angle, in line with the skewed Downtown street grid
- Uniform lot sizes (narrow and rectangular)
- Orientation of residences (primary façades and entrances face the street)
- Slight variation in setbacks
- Landscaped front yards
- Concrete walkways leading from the street to the primary entrance
- Narrow concrete driveways
- Detached garages
- Concrete sidewalks

A one-story, single-family house within the La Verne Street Historic and Scenic District.

An example of a two-story, single family house within the historic district.

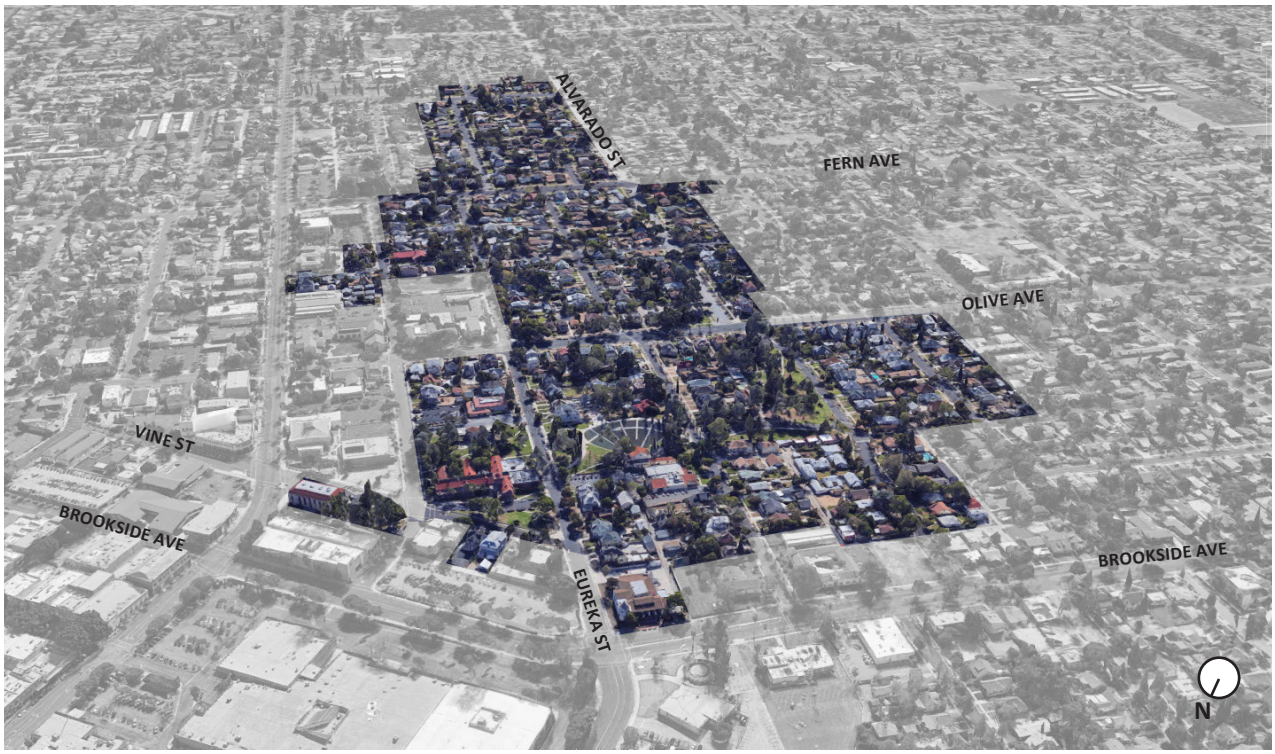
- Cut stone curbs
- Street trees (various species, but palms are most prevalent on the south side of La Verne)

Refer to Ch. 9 - Guidelines for Site and Landscape Design for information related to the treatment of character-defining site and landscape features in this district.

Smiley Park Neighborhood Historic & Scenic District

District Description

The Smiley Park Neighborhood Historic and Scenic District is a locally designated historic district south of Downtown Redlands; it is also a National Register-listed district. The topography of the district is flat, and streets align with the skewed street grid comprising the area immediately south of Downtown. The historic district comprises a neighborhood of primarily single-family and some small-scale, multi-family residences dating from the turn of the 20th century to the decades leading up to World War II. Some institutional properties, dating to the same time period, as well as a handful of postwar residential and commercial infill properties, are also present. Most residences are sited on narrow, rectangular lots with consistent setbacks and landscaped front yards. Buildings are primarily accessed via concrete walkways connecting to the sidewalk, and concrete driveways lead to detached garages. The district is characterized by its cut stone curbs, cast stone streetlights, street trees of various species, and its integration of public and private institutional properties, which served as the focal point for neighborhood activity.



Aerial view of the Smiley Park Historic District looking southeast.

The Smiley Park Historic District is significant as an early middle class residential neighborhood that developed adjacent to the commercial Downtown during the late 19th and early 20th centuries. The district comprises several residential tracts originally subdivided by Redlands' founders E.G. Judson and Frank E. Brown. The neighborhood experienced tremendous growth from the late 1880s until the 1913 Freeze, which took a major toll on Redlands' agricultural economy. Following the Freeze and World War I, the district witnessed a second development boom during the late 1910s and 1920s, reflected in its significant collection of houses from this period. The district is also significant as the "largest and most intact residential neighborhood" built during the city's initial phase of development, per the district's National Register nomination. It contains a number of buildings that are excellent examples of their respective architectural styles, including sub-styles of Victorian-era, Arts and Crafts, and Period Revival architecture.

Smiley Park Neighborhood Historic & Scenic District

Character-Defining Features

Architectural Styles & Building Types

- Queen Anne
- Victorian-era Vernacular Cottage
- Craftsman
- American Foursquare
- Shingle
- Classical Revival
- American Colonial Revival
- Tudor Revival
- Spanish Colonial Revival
- Mediterranean Revival
- Mission Revival

Refer to Appendix B for more information regarding the architectural styles and vernacular building types included in this district.

Building Materials

- Roofing: composition shingle, wood shingle, clay tile
- Wall Cladding: wood shingle/clapboard, stucco, brick
- Foundations: concrete, brick, stone, wood post and pier
- Windows/Doors: wood

Refer to Ch. 3 - Guidelines for the Preservation, Rehabilitation, & Restoration of Historic Exterior Building Materials for information related to the treatment of character-defining materials in this district.

Is my property in this district?

To find out whether your property is in the Smiley Park Neighborhood Historic & Scenic District, check the City of Redlands List of Historic Resources (https://www.cityofredlands.org/city-hall/departments/development_services/planning_division/historic_preservation)

Buildings within the historic district are sited on narrow lots with uniform setbacks.

A Queen Anne style building.

Smiley Park Neighborhood Historic & Scenic District

Character-Defining Features

A Tudor Revival style building.

Site & Landscape Features

- Largely linear streets that align with the skewed street grid south of Downtown
- Uniform lot sizes (narrow and rectangular)
- Orientation of residences (primary façades and entrances face the street)
- Consistent setbacks
- Landscaped front yards, some with the low concrete or stone retaining walls
- Concrete walkways leading from the street to the primary entrance
- Narrow concrete driveways (some in the original "ribbon" style)
- Detached garages
- Concrete sidewalks
- Cut stone curbs
- Street trees (various species)
- Integrated public institutions, such as Smiley Park, Smiley Public Library, and two church properties

Refer to Ch. 9 - Guidelines for Site and Landscape Design for information related to the treatment of character-defining site and landscape features in this district.

View of a large Mediterranean revival style building.

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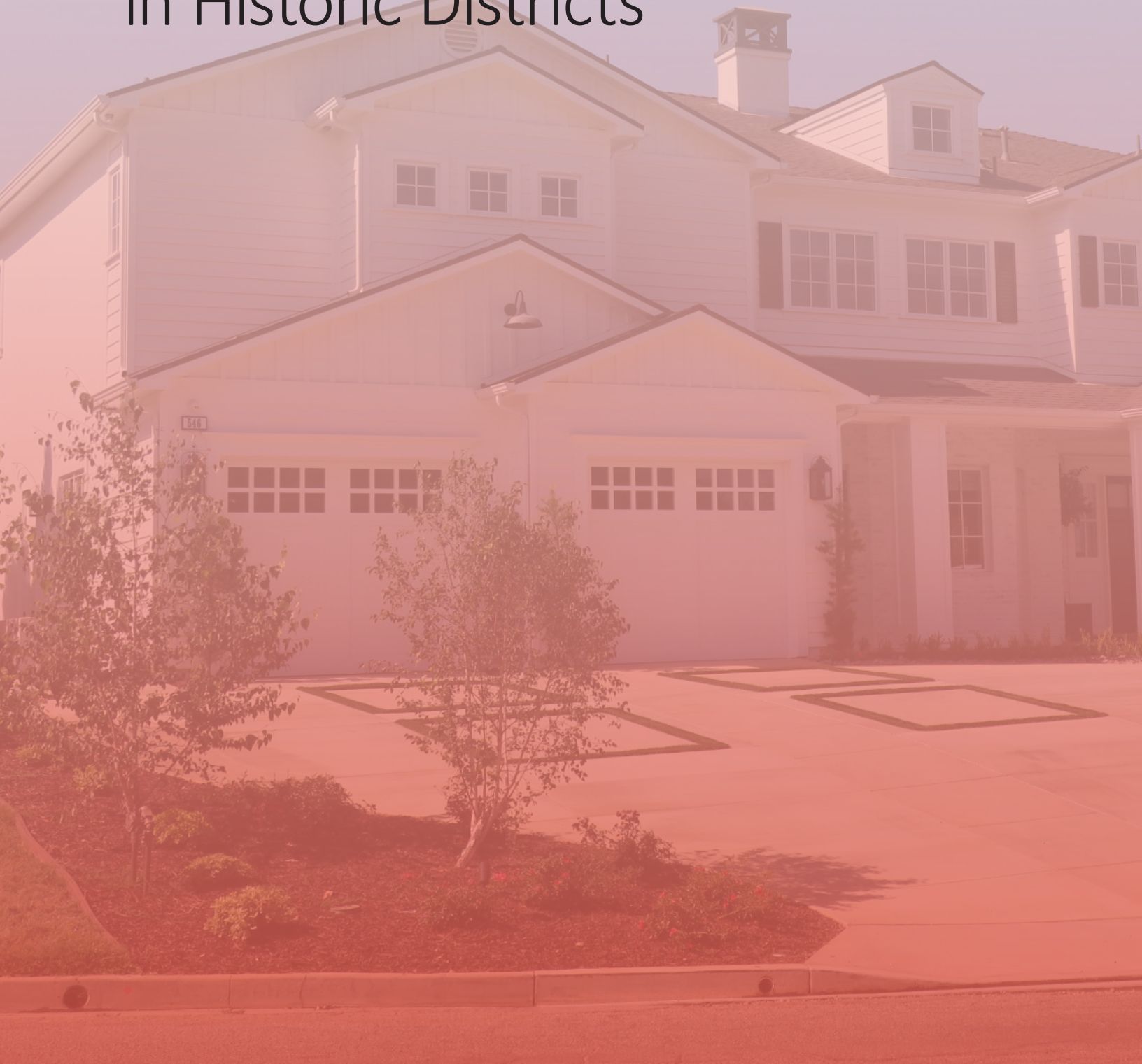
Chapter 8

Guidelines for New Buildings and Non-Contributing Buildings in Historic Districts



Chapter Overview

Use This Chapter If...

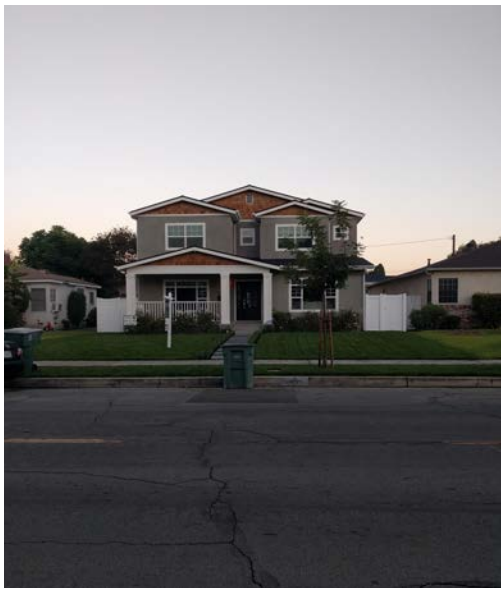
- You own a non-contributing building within a historic district and need to make repairs or alterations.
- You are undertaking a new building project on a vacant lot within a historic district and would like guidance on elements to consider when planning your design.
- You are planning to make alterations to your non-contributing building and wish to maintain a compatible appearance with the historic buildings in the historic district.

What's Inside...

Compatibility Considerations
Guidelines for New Residential Construction
Guidelines for New Commercial Construction
Guidelines for New Construction in Historically Industrial Areas

Compatibility Considerations

See pages 20-21 in Ch. 1 for information regarding the Design Review process for New Construction.



Incompatible (out-of-scale) residential infill.

Compatible commercial infill.

This chapter addresses the construction of new buildings in Redlands' historic districts, as well as alterations to non-contributing properties within a historic district. These guidelines are intended to help promote design that is compatible with the historic district in which it is located and to ensure that it does not adversely affect the integrity or historic character of the district. As Redlands' historic districts are not suspended in time, they must be allowed to evolve while still retaining their essential historic character.

New construction should be compatible with its context and surroundings. It should be distinguishable from surrounding historic properties, expressing its true age, without detracting from the historic character of the district.

To achieve compatibility, new construction should:

- Relate to the character-defining features of the historic district, including building placement, setbacks, orientation, relationship to ancillary structures, and other features.

Refer to Ch. 7 - Guidelines for Historic Districts for each district's character defining features.

- Relate to features that characterize neighboring historic properties, including scale and massing of building components and architectural features, roof form, façade composition, and materials.
- Illustrates its true age, as opposed to directly imitating a historic style or applying false historic treatments, to avoid misinterpretation as a historic resource.

Compatibility may be achieved through the application of simplified versions of architectural styles that are present within the district, as well as through contemporary designs that incorporate compatible architectural features.

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Guidelines for New Residential Construction

Site Design Guidelines

The following guidelines for new residential construction may be applied to single-family residences and small-scale, multi-family properties, such as duplexes, smaller apartment houses, bungalow courts, and garden apartments, located in Redlands' historic residential districts. As some of the city's residential districts are zoned to allow for commercial use, the following guidelines should also be applied to new commercial construction in historic residential neighborhoods.

In historic neighborhoods with detached rear garages and driveways leading from the street, the building's side setback may be wider on one side to accommodate the driveway.

An example of a compatible new building in the Early Redlands Historic District.

Building Placement

- Place a new residence to reflect the established setbacks along the block.
- Where front setbacks are uniform, locate the building in alignment with its neighbors.
- Where front setbacks vary, locate the building within the established range of setbacks on the block.

Side Setbacks

- Locate the new residence to maintain the side setback spacing pattern on the block as discernible from the public right-of-way.

Orientation

- In general, a new residence should be oriented to face the street in residential historic districts.
- Locate the primary entrance, consisting of a porch or entrance stoop, on the front façade of the building, where it is highly visible.
- Where there is more than one building on a site, orient a least one of the buildings to face the street. The other building(s) may face the street or a common courtyard area.

Garage Placement

- Locate a garage or other ancillary structure to be consistent with the location of other ancillary structures within the surrounding block/neighborhood. Typically, garages are either detached, located at the rear of the property, or attached, flush with or projecting from the primary façade of the residence.

Guidelines for New Residential Construction

Site Design Guidelines

Vehicular Access

- Place a driveway to be consistent with the placement of other driveways within the historic district.
- Driveways may be located alongside the residence, leading to a rear detached garage, or they may be aligned with the residence, leading to an attached garage.
- Avoid constructing a new curb cut or driveway where an alley can provide access to a rear detached garage. In order to maintain the historic streetscape and yard patterns of the historic district, avoid widening an existing curb cut or driveway.
- Design a new driveway to be compatible with the material composition, width, and overall appearance of existing historic driveways within the district.

Refer to Ch. 9 - Guidelines for Site and Landscape Design for additional information regarding appropriate driveway design.

Pedestrian Access

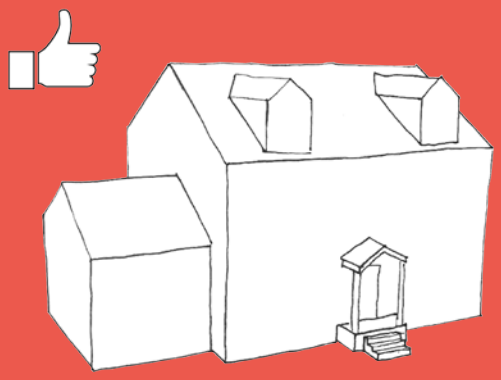
- Provide a clear discernible path from the new residence to the street. The walkways should either lead from the entrance directly to the sidewalk, or to a driveway that leads to the street. Its configuration should be consistent with the configuration of other walkways in the historic district.
- Where multiple units are located on a site, create an internal walkway system that connects each unit entrance to a common walkway leading to the sidewalk.
- Design a new walkway to be compatible with the material composition, width, and overall appearance of the walkways of adjacent historic properties.

Front Yard Fence

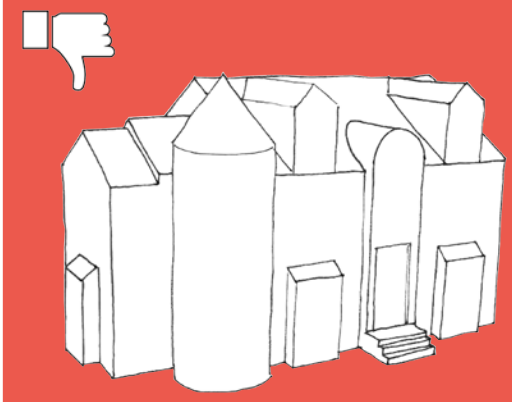
- Front yard fences are rare and inconsistent throughout Redlands' historic residential districts. Thus, a front yard fence is discouraged. However, if a front yard fence is necessary or desired, the fence should be compatible with the architectural style of the building.
- The front yard fence should generally be low in scale and visually transparent.

Guidelines for New Residential Construction

Building Design Guidelines



Use simple building forms that are similar to forms in the surrounding historic context.



Avoid using a significantly higher number of building forms than are typically seen in the surrounding historic buildings. This can cause a building to appear busy and overly massive.

Scale and Massing

- Design a new residential building to be compatible with the scale and massing of historic buildings in the surrounding district.
- A new residence should be within the range of historic heights (typically one or two stories) in the surrounding block/neighborhood.
- Incorporate building forms and volumes similar to those of surrounding historic properties. Avoid using overly complex building forms or a wide variety of forms than are typical of adjacent historic buildings. Similarly, avoid designing overly simplified, boxy building forms when they are not typical of the surrounding historic district.
- Locate and proportion building components to reflect similar components on adjacent historic properties. For example, roof height/width, foundation height, floor-to-floor height, porch height/width, window height/width, and door height/width should generally match the heights/widths of those components of surrounding historic residences.
- Small-scale multi-family buildings should be designed in such a way that individual building units express historic single-family residential dimensions. For instance, incorporate a front porch for each unit when a porch is needed to maintain the typical streetscape and proportions of the surrounding historic block.

Roof Form

- The building's roof type and pitch should be compatible with the architectural style of the building.

See Appendix B for information about characteristic roof types of Redlands' architectural styles.

Guidelines for New Residential Construction

Building Design Guidelines

Façade Composition

- A new residential façade, particularly the primary façade and those most visible from the public right-of-way, should be designed with the same level of articulation as the façades of surrounding historic properties.
- Articulate the façade(s) with architectural details that are compatible with the predominant architectural style(s) along the block.

See Appendix B for more information about the character-defining features of architectural styles in Redlands.

- Details should be simple in design and should complement, rather than visually compete with, the character of adjacent historic residences. Architectural details that are more ornate than those found in the historic district are inappropriate.

An example of a compatible new building (Google, 2018).

Entrance Porch or Stoop

- Design a projecting or recessed entrance porch or stoop at the primary façade of the building.
- The front porch/stoop should be one story in scale and oriented toward the street.
- The front porch/stoop should be designed with the same level of articulation as those of surrounding historic properties.

Exterior Materials

- Use exterior materials that are compatible with the materials present in the historic district.
- Choose materials that are the same or similar in finish, texture, and overall appearance as those used on adjacent historic residences.

Avoid complex massing that is out of character with the surrounding historic buildings.

Guidelines for New Commercial Construction

Site Design Guidelines

The following guidelines for new commercial construction may be applied to buildings in Redlands' commercial historic districts.

Currently, Redlands' only commercial historic district is the Redlands Santa Fe Depot District (east of Orange Street). However, these guidelines are broadly applicable to future potential historic districts and can be revised as needed to address any differences.

The orientation of this contemporary commercial building at the corner of Orange Street and Redlands Boulevard is compatible with the block context.

Building Placement

- Place a new building to adhere to the alignment of historic building façades and entrances in the surrounding block.
- If existing historic buildings are flush with the sidewalk, creating a uniform street wall, locate the new commercial building to conform to this alignment.
- Where front setbacks vary, locate the building within the established range of setbacks on the block.

Side Setbacks

- Position a building so that its side setbacks are in accordance with the side setbacks of surrounding historic properties.
- If existing historic buildings in the district abut one another, the new building should also be placed directly in contact with its neighboring property in order to maintain a continuous street wall appearance.

Orientation

- Orient a building's entrance to adhere to the established historic pattern of the surrounding block. Typically, historic commercial building entrances face the street.

Pedestrian Access

- Design a new commercial building so that its primary entrance opens directly onto the sidewalk in order to maintain the pedestrian-oriented feeling of the historic district.

Parking

- Parking should be located at the rear of the building, or to the side when rear parking is not feasible, in order to maintain the building's pedestrian orientation and relationship with the sidewalk.

Signage

- Signage should be compatible with the scale, location, and materials of existing historic signage in the district.

Refer to Ch. 9 - Guidelines for Site and Landscape Design for additional information regarding appropriate signage design.

Guidelines for New Commercial Construction

Building Design Guidelines

Scale and Massing

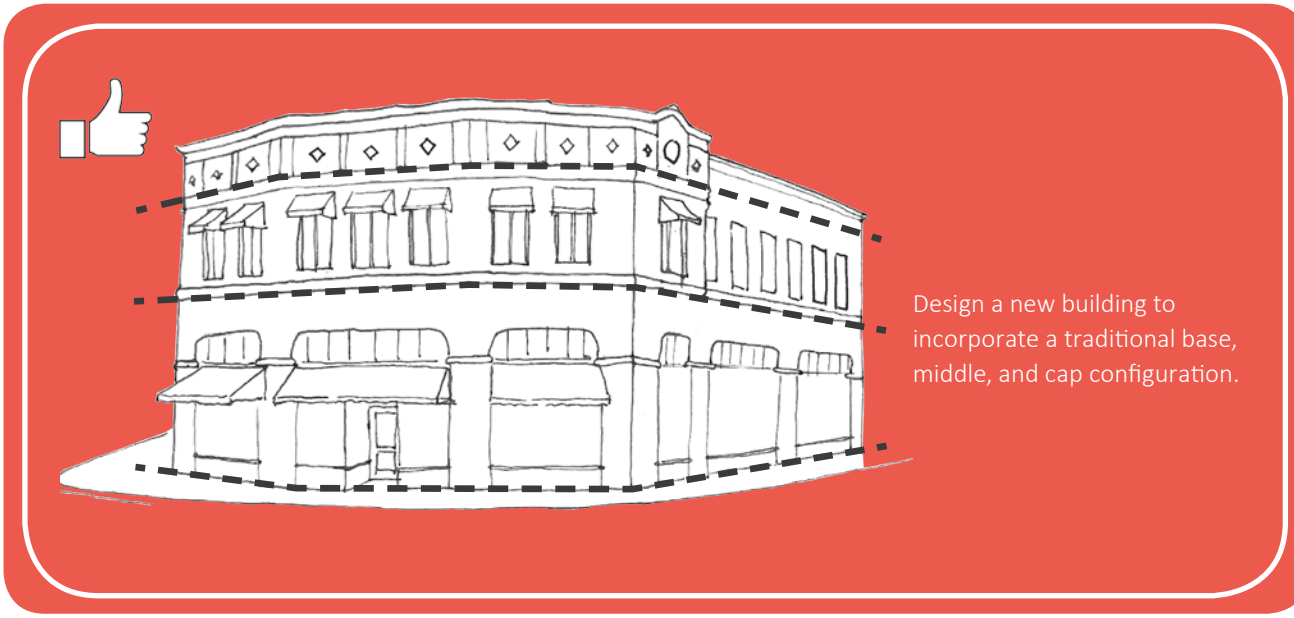
- Design a new commercial building to be compatible with the scale and massing of historic buildings in the surrounding district.
- A new commercial building should be within the range of historic heights (typically one or two stories) in the surrounding block. If the building needs to be taller than two stories, the third story should be stepped back from the primary façade in order to maintain the lower, pedestrian scale of the historic commercial streetscape.
- Design a new commercial building to be composed of simple, rectangular forms that are consistent with the form and massing of surrounding historic properties.
- Locate and proportion building components to reflect similar components on adjacent historic properties. For example, the new building should incorporate a traditional base, middle, and cap configuration that aligns with those of adjacent historic buildings. Second-story windows on commercial mixed-use buildings should typically be smaller and more residential in character.

Roof Form

- The building's roofline should be compatible with the rooflines of adjacent historic properties. Typically, historic commercial buildings retain flat roofs.

An example of a new large-scale commercial building in Redlands.

A new two-story commercial building that meets the street wall of the adjacent historic buildings.



Design a new building to incorporate a traditional base, middle, and cap configuration.

Guidelines for New Commercial Construction

Site Design Guidelines

New commercial designs should be distinctive but compatible with the historic block context.

Façade Composition

- Design the new commercial building façade to have a similar solid-to-void ratio as others in the historic district. The building should retain extensive transparent glazing at the primary façade in order to provide a connection to the interior for passersby.
- The building's façade(s) should retain the same level of articulation as those of adjacent historic properties. The front façade should be divided into smaller parts through use of glazing, bulkheads, canopies, and other vertical and horizontal detailing, as appropriate. Long unarticulated wall planes should be avoided.
- Design the building with decorative details that are compatible with the predominant architectural style(s) along the block. Details should be simple in design and should complement, rather than visually compete with, the character of adjacent historic properties. Architectural details that are more ornate than those found in the historic district are inappropriate.

See Appendix B for more information about the character-defining features of architectural styles in Redlands.

Entrance(s)

- Design a new commercial building with one or more entrances.
- The building's entrance(s) may be recessed or flush with the façade and should retain the same level of articulation as those of adjacent historic properties.

Exterior Materials

- Use exterior materials that are compatible with the materials present in the historic district.

Refer to Ch. 3 - Guidelines for the Preservation, Rehabilitation, and Restoration of Historic Exterior Building Materials for information related to common historic buildings materials in Redlands and their appropriate treatment.

- Choose materials that are the same or similar in finish, texture, and overall appearance as those used on adjacent commercial buildings.

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Guidelines for New Construction in Historically Industrial Areas

Site Design Guidelines

The following guidelines apply to new development in Redlands' historic industrial areas.

Currently, Redlands' only industrial historic district is the Redlands Santa Fe Depot District (west of Orange Street). However, these guidelines are broadly applicable to future potential historic districts and can be revised as needed to address any differences.

A new building within the Redlands Packing House district. (Google, 2018.)

A new building with an industrial inspired sawtooth roof. (Google, 2018.)

Building Placement

- As the setbacks of Redlands' historic industrial buildings vary, a new building may be placed flush with or set back from the sidewalk in historically industrial areas.

Side Setbacks

- New construction within a historic district containing industrial properties should be placed a substantial distance from surrounding properties in order to retain the historically open spacing and character of the area.

Orientation

- As the orientations of the city's historic industrial properties vary, a new building may be oriented toward the street or toward an associated parking lot/landscaped open space.

Pedestrian Access

- Where possible, provide a direct connection for pedestrians from the building to the sidewalk or associated parking lot.

Parking

- Parking may be provided at the front, side, or rear of a building.
- Where appropriate, parking may be used as a buffer between the building and surrounding historic properties, in order to maintain the open, industrial character of the district.

Signage

- Signage should be compatible with the scale, location, and materials of existing historic signage in the district.

Refer to the Signage section of Ch. 2 - Guidelines for the Preservation, Rehabilitation, and Restoration of Historic Resources for additional information regarding appropriate signage design.

Guidelines for New Construction in Historically Industrial Areas

Building Design Guidelines

Scale and Massing

- Design a building to be larger in scale in order to relate to the historic industrial properties surrounding it.
- The building should retain simple, rectangular massing.

Roof Form

- The building's roofline should be compatible with the rooflines of adjacent historic properties, which are typically gabled or flat. A new building may be designed with a sawtooth roof or incorporate roof monitors, as seen on adjacent historic industrial properties.

Façade Composition

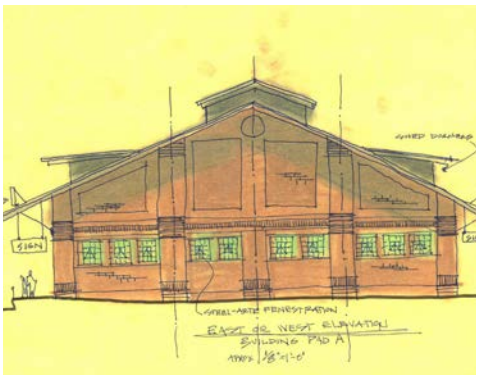
- Locate and proportion building components to reflect similar components on adjacent historic properties.
- Though a new building should reflect the utilitarian aesthetic of adjacent industrial properties, basic articulation methods, including building wall offsets, changes in material, horizontal and vertical details, and other simple architectural design elements should be employed.
- Applied ornamentation should be minimal in historically industrial areas.

Entrance

- A new building's entrance should generally be understated and utilitarian in appearance, in line with the typically modest entrances of adjacent historic industrial buildings.
- An entrance may be articulated through simple architectural details, such as canopies or raised entrance platforms designed to emulate historic loading docks.

Exterior Materials

- Use exterior materials (i.e. masonry, metal, and glass) that are compatible with the materials present in the historic district.
- Choose materials that are the same or similar in finish, texture, and overall appearance as those used on adjacent industrial buildings.



A new industrial style design for the Redlands Santa Fe Depot Historic District.

Chapter 9

Guidelines for Site and Landscape Design

Chapter Overview

Redlands' historic site and landscape features, from cut stone curbing to mature trees to estate perimeter walls, are important contributors to its architectural and aesthetic character. This chapter provides general guidelines for the preservation, maintenance, repair, replacement, and restoration of these features, organized by residential, commercial, and municipal types. It also offers specific guidelines for altering or adding to historic site and landscape features.

Use This Chapter If...

- You own a historic property and a landscaping or yard feature, such as a mailbox or walkway, is in need of repair or replacement.
- You would like to restore your building's historic landscape or yard features to match their historic design.
- Your historic landscape or site feature(s) have been altered over time, and you are interested in introducing a new design that is compatible with the historic property or historic district.

What's Inside...

Residential Site and Landscape
Commercial Site and Landscape
Municipal Site and Landscape

Residential Site and Landscape

Treatment Guidelines

This section addresses the treatment of historic residential site features. In Redlands, these features may include trees, landscaping, fences, perimeter walls, retaining walls, walkways, steps, terraces, driveways, curbs, fountains, and freestanding mailboxes and light fixtures. These features may have been constructed during the same time as their associated historic building or added to the site at an early date. Their design typically relates to the main building in style, form, material, and finish, and often reflects specific adaptation to a topographical setting. These features extend the visual continuity of the house to the street. Similar to the main building, proper treatment of site features is important to preserving the character and integrity of historic resources in Redlands. However, due to their secondary, subordinate nature, there is greater flexibility in their treatment.

Stone pillars mark a historic subdivision entrance.

An arroyo stone retaining wall defines the Garden Hill district.

Preserve

- A historic site feature is an important residential architectural component worthy of preservation.
- Preserve the location, design, scale, form, and materials of a historic site feature.
- Preserve a historic site feature's relationship with a connection to the primary building.
- Avoid demolishing a historic site feature, as it helps to convey the primary building's history.
- Prioritize the preservation of mature citrus trees and arroyo stone features, which uniquely convey the community identity of Redlands.

Maintain

- Maintain a historic site feature to prolong its life and protect investments made in its construction and repair.
- Site maintenance may include resetting stone or pavers, removing debris, pest control, low-pressure water washing, cleaning by hand, painting, protecting or other light treatments, as required.
- Landscape maintenance may include removing weeds, pruning, and watering.

Residential Site and Landscape

Treatment Guidelines

Repair

- Repair a historic site feature when the physical condition warrants additional work.
- Repair work may include patching, splicing, consolidating, chemical cleaning, stripping and repainting, repointing or other treatments in order to repair and stabilize the historic materials or appearance. Seek the gentlest repair solution possible.
- Repair may also include selective replanting or replacement of pavers in kind; or removal of deteriorated concrete and pouring new concrete to match the adjacent context.
- All repair work should match the materials and finishes of the existing historic features as closely as possible.

Mature trees or shrubs may be historic landscape features.

Replace

- Replace a historic site feature only when deteriorated beyond repair.
- Replacement features should be compatible with the existing historic site features in material, size, finish, and overall character.
- Use existing planting beds, paths, and holes for new features or fixtures where possible.
- New landscaping should match the original design intent, and hardscape, grading, and plantings in kind.
- Use of alternative compatible materials may be appropriate at historic site features located at the rear or secondary façades, not readily visible from the public right-of-way.

A new fence should be modest in size and appearance.

Restore

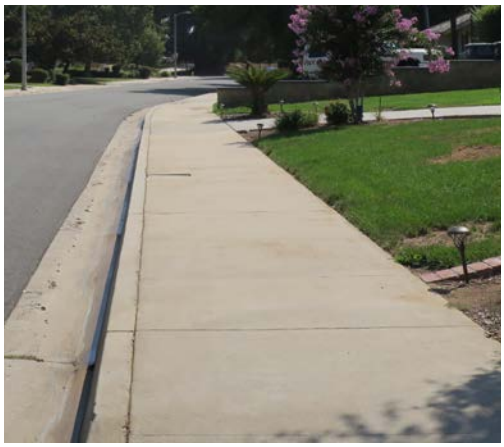
- Restore non-historic components on a site feature to their original condition.
- Restoration may include the replacement of completely missing historic site features based on physical or historic documentation, with the same materials or compatible substitutes.
- Avoid adding conjectural features that may create a false sense of history.

Maintain the proportions of historic hardscape to landscape.

Residential Site and Landscape

Treatment Guidelines

A low retaining wall painted to match the historic building is a compatible landscape alteration.



Match new concrete to adjacent concrete.

Avoid installing site features where they did not exist historically.

Alterations and Additions to Residential Site Features

- It may be appropriate to alter or construct a new site feature if the original is missing and cannot be discovered from historic documentation, or if it is required for the continued use or adaptive reuse of a property.
- New site features should be constructed in areas not readily visible from the public right-of-way, if possible.
- If an alteration or addition is required, it should be compatible in form, scale, style, and material to the overall site or similar sites in age and type, but contemporary in design so as not to create a false sense of history.
- New landscaping should protect the roots of existing mature trees.
- If new concrete sidewalk or driveway paving is required, the new concrete should match the tint, scouring pattern, and dimensions of the adjacent sidewalk and/or neighborhood context. If possible, use pervious concrete.

See the Energy Conservation and Environmental Sustainability section of Chapter 4 for more information about pervious concrete.

- Any stone curbs should be preserved or replaced in kind.
- If a new fence is required, it should be aligned with the property line and low in height so as not to obscure the existing historic building.
- The material, ornament and color of a new fence should be appropriate to the style and period of the building.

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Commercial Site and Landscape

This section addresses special considerations for historic commercial site features. In Redlands, these features may include landscaping, walkways, steps, patio, railings, driveways, parking lots, alleys, and service areas. These features are typically utilitarian, as compared to decorative site features of residential buildings, and they extend the function of the commercial building into the public sphere. Proper treatment of commercial site features is important to preserving the character and integrity of historic resources in Redlands. However, due to their secondary and utilitarian nature, there is greater flexibility in their treatment.

A metal fence defines the side yard of this commercial property.

A red brick walkway gives a uniform appearance to the State Street commercial area.

Special Considerations for Historic Commercial Site Features

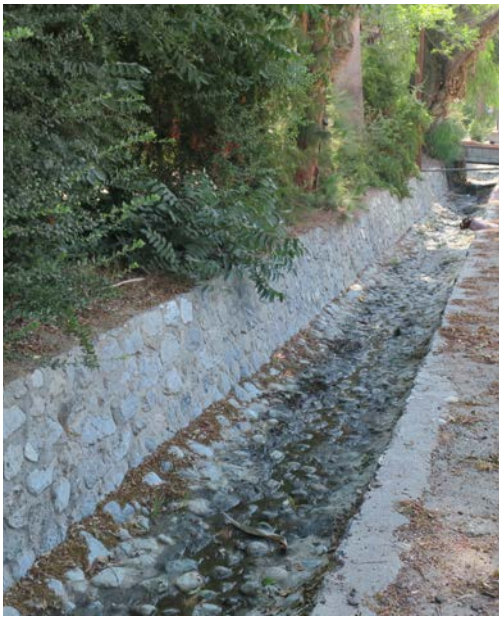
- Preserve, maintain, repair, or restore original landscaping, paving elements, or other unique site features that convey the historic use or character of the building or its surrounds.
- Utilitarian site features, such as driveways and alleyways, should remain utilitarian in character and design.
- New landscaping, paths, and driveways should be compatible with the neighborhood context. For example, commercial buildings within a predominantly residential neighborhood should adhere to residential site features, such as landscaped front yards and side driveways with rear parking.
- If new concrete sidewalk or driveway paving is required, the new concrete should match the tint, scouring pattern, and dimensions of the adjacent sidewalk and/or neighborhood context. Any stone curbs should be preserved or replaced in kind.
- If a new sidewalk, patio, or alleyway café is required, it should be set within the property line and have movable, free-standing tables and chairs, stanchions, and potted plants.
- New railings or stanchions should be metal, low in height, and transparent so as not to obscure the historic commercial building.

Municipal Site and Landscape

This section addresses special considerations for historic municipal site features. In Redlands, these features may include street trees, streetlights, concrete sidewalks, cut stone curbs, retaining walls, culverts, and canals, such as Redlands' historic zanja. These features are typically utilitarian and historically served an important function for the entire community. Proper treatment of municipal site features is important to preserving the function, character, and integrity of historic resources in Redlands.

Special Considerations for Historic Municipal Site Features

- Preserve, maintain, repair, or restore original landscaping, paving elements, and stone irrigation features that convey the historic use or character of the building or community.
- New landscaping, paths, driveways, and accessory features required should be compatible with the neighborhood context.



Stone-lined ditches and culverts are found throughout Redlands.

Mature trees and remnants citrus groves define portions of the city's streetscape.

Appendix A

Architectural Glossary

Architectural Glossary

Adaptive Reuse The process of converting a building to a use other than that for which it was designed. Such a conversion may be accomplished with varying alterations to the building.

Arcade A passageway attached to a house defined on one side by a series of arched openings.

Arch An opening which is curved at the top.

Asbestos Siding Large, wide shingles comprised of a rigid asbestos material used in a horizontal siding pattern as cladding for exteriors in the 1930s through the 1950s. Sometimes affixed over an earlier wood cladding.

Asymmetrical A dissimilarity or imbalance among features on a building or a façade.

Awning A fixed cover, typically comprised of canvas over a metal armature, that is placed over windows or doors.

Ball and Spindle Trim A row of thin sticks sporting balls in an alternating pattern typical in Victorian era architecture.

Baluster An upright, often vase-shaped, support for a rail.

Balustrade A series of balusters supporting a porch or balcony railing.

Bargeboards A board which finishes the edge of the roof and runs parallel to the gable face. Sometimes known as verge boards.

Barrel-Shaped A vault in the shape of an extended arch, parallel to the axis of a cylinder.

Battens Narrow strips of wood applied to cover the gaps between boards. Also used decoratively as a repeating vertical element.

Battlement A parapet built with indentations for defense or decoration. Often seen on turrets, as on a medieval castle.

Bay A projected or recessed portion of a house. Sometimes used as a means of organizing façades and adding depth to walls.

Bay Window A window projecting outward from the main wall of a building.

Beveled Glass Glass with a decorative edge cut at an angle to give the pane a faceted appearance. Typically used in patterns with lead muntins.

Beveled Siding A type of wood cladding characterized by beveled overlapping boards with rabbeted edges.

Board and Batten Wood vertical siding composed of wide boards and narrow strips of wood (battens) that cover the seams between the boards.

Bracket A supporting element under eaves, shelves, or other overhangs; sometimes only decorative.

Bulls Eye An opening or ornament formed by concentric circles or ovals; often found in Queen Anne and Colonial Revival style window and door surrounds ornamenting the corners.

Capital The top, decorated part of a column crowning the shaft and supporting the entablature.

Cartouche A decorative oval or scroll shape.

Casement Window A window with sash that open inward or outward from side hinges.

Chimney Cap The top part of a chimney, usually a slab or cornice, that protects the chimney opening.

Chimney Pot A pipe placed on top of a chimney, usually of earthenware, that functions as a continuation of the flue and improves the draft.

Cladding The covering of a wall surface.

Clapboard Overlapping horizontal boards used as siding on wood-framed houses.

Clerestory An upward extension of a single storied space used to provide windows for lighting and ventilation; usually located along a horizontal break in the roof plane.

Clinker Brick Bricks that are irregular in size and shape, dark in color, and typically used during the Craftsman era.

Clipped Gable The end of a roof in a shape intermediate between a gable and a hip.

Column A vertical wood or masonry member used in supporting a roof or entablature.

Architectural Glossary

Community Development Block Grant (CDBG) Program Historic Preservation is an "eligible activity" under this federal grant, and funds can be used to rehabilitate, preserve, and restore historic properties. The CDBG program can also be used for special planning studies, projects, and publications which address the preservation of historic buildings.

Conjectural Features not substantiated by original photographs or original documents.

Coping The uppermost course of a wall, parapet, or chimney that projects beyond the wall plane and is often beveled or sloped to shed rain; a masonry cap along the top of a wall or parapet.

Corbel A bracket or block projecting from the face of a wall that generally supports a cornice, beam or arch.

Cornice In classical architecture, the uppermost, projecting part of an entablature; a projecting ornamental molding along the top of a house or wall.

Cupola A small dome capping a turret or other portion of a roof.

Decorative Shingles Wood shingles cut in various shapes, such as diamond, fish scale, cut-corner and sawtooth.

Dentil A small, square, toothlike block found in a series on cornices, moldings, etc.

Design Guidelines Criteria, locally developed, which identify local design concerns, drawn up in an effort to assist property owners to identify and maintain the character of the designated district or buildings in the process of rehabilitation and new construction.

Doric Column Simplest of the classical Greek columns with heavy fluting, no bases, and plain, saucer-shaped capitals.

Dormer A windowed projection from the slope of a roof.

Double-Hung Window A pair of superimposed wood window sash that are offset so as to slide up and down within the same frame.

Downspout Metal or tile tubing extending from a roof gutter to ground level as a means of directing rain water away from the building. The **elbow**, or **gooseneck**, segments direct the pipe toward or away from the building; the **strap** attaches the downspout to the wall; the **shoe** directs water away from the foundation at the base of the conduit.

Eaves The projecting portion at the lower edge of a roof that overhangs the exterior wall.

Egg and Dart A classical decorative molding used to trim fireplaces, doors, chimneys, and cornices.

Elevation A two-dimensional representation or drawing of an exterior face of a building.

Endboard A wood board used to define the corners of clapboarded houses.

Entablature In classical architecture, the part of a structure between the roof and the column capital, including the cornice, frieze, and architrave.

Eyebrow Dormer A low dormer in which the arched roof line forms a reverse curve at each end giving it the general outline of an eyebrow. May contain a window or vent.

Façade An exterior face of a house; a drawing of a façade is referred to as an elevation.

Fanlight A semicircular or fan shaped window used over a door or window with muntins that create rays.

Fascia A flat horizontal member with minimal projections such as an architrave in classical architecture.

Glazing The use of glass in a window or door.

Gutter A channel at the edge of a roof line for catching and carrying off rainwater.

Half-Timbering The application of wood boards to house façades to simulate the appearance of a method of construction used in 16th and 17th century England in which the spaces between the vertical structural members were filled with plaster or brickwork.

Hipped Roof A roof comprised of four or more sloping planes that all start at the same level.

Architectural Glossary

Historic District A geographically definable area possessing a significant concentration, linkage, or continuity of sites, buildings, structures or objects united historically or aesthetically by plan or physical development.

Historic Resource Any improvement, building, structure, landscape, sign, features, site, place or area of scientific, aesthetic, educational, cultural, architectural, or historic significance to the citizens of Anaheim.

Historic Resources Inventory The organized compilation of information on those properties evaluated as significant according to a historic resource survey.

Historic Resources Survey A process of identifying and gathering data on a community's historic resources (including buildings, sites, structures, and districts) deserving recognition in order to provide a basis for possible official designation and help establish preservation goals and objectives. A survey includes field work; the physical search for, and recording of, historic resources on the ground as well as research, organization, and presentation of the survey data.

Hood Molding A large molding over a window, originally designed to direct water away from the wall; also called a drip molding.

Infill Buildings or trees that have been designed or sized to replace missing buildings or otherwise fill gaps in the streetscape.

Ionic Capital and Column A style of classical column designed in ancient Greece which features a capital with volutes (large scrolled forms) at each corner.

Joinery The craft of connecting members together through the use of various types of joints.

Joint The place where two or more structural members meet.

Keystone The center block at the top of an arch that locks the other blocks of the arch in place. Sometimes distinguished from the other blocks (or "voussoirs") in a decorative manner.

Lath Thin strips of wood often used as a base to support the application of plaster to a wall. Not to be confused with *lathe.*

Lathe A machine that rapidly turns a piece of wood or metal to aid in shaping it, such as that used to create decorative spindlework.

Lattice A network of crossed lath or thin strips of iron or wood, often used to create screening or ornamental construction.

Leaded Glass Small panes of clear or colored glass held in place by lead strips used to create design.

Light A single, framed pane of glass within a window.

Lintel A horizontal structural member over an opening that supports the structural load above it; usually made of wood, stone, or steel.

Mansard Roof A roof with two slopes on all four sides; the lower slope is much steeper and can have a straight, convex or concave shape; may be punctuated by small dormers.

Masonry Brick or stone set together, with or without mortar.

Massing The placement and relative size of three-dimensional shapes that comprise a building.

Mills Act Created by California state legislation in 1972, the Mills Act allows cities to enter into contract with owners of historic buildings to provide the incentive of reduced property taxes in exchange for the continued preservation of the property.

Molding (Moulding) A continuous decorative band that is either carved into or applied to a surface.

Mullions The vertical dividing pieces between a group of windows or sash.

Architectural Glossary

Multilight A window glazed with multiple pieces of glass usually arranged in a grid-like pattern and divided by thin, wood members called muntins.

Muntin A small, slender wood or metal member which separates the panes of glass in a window.

National Register of Historic Places The official Federal list of districts, sites, buildings, structures, and objects significant in American history, architecture, archaeology, engineering, and culture. National Register properties have significance to the prehistory and history of their community, State, or the Nation. The register is administered by the National Park Service. Properties listed in the National Register must possess significance and integrity. Significance is assessed according to the National Register Criteria for Evaluation (see above). Generally, properties must be 50 years of age or more to be considered for the National Register.

Open Eaves The lower edge of an overhanging roof where the rafters are exposed and can be seen from below.

Oriel Window A bay window that projects from the main wall of the building but does not reach the ground; usually supported by brackets or corbels.

Overhang The extension of a roof beyond the edge of a supporting wall or column.

Palladian Window A three-part window with a top arched center window and long, narrow rectangular windows on either side.

Parapet Wall A low, solid protective wall along the edge of a roof or balcony.

Pediment A triangular gable end defined by any molding or trim at the edge of a gabled roof and the horizontal line at the eaves.

Pergola A structure consisting of posts supporting an open roof in the form of a trellis.

Pier A stout column or pillar.

Pilaster A flat rectangular column attached to the face of a building.

Pitch The slope of a roof expressed in terms of ratio of height to span.

Porch A covered entrance or semi-enclosed space projecting from the façade of a building, most often open sided.

Portal The principal entry of a structure.

Porte Cochere A covered porch over a driveway, large enough to let a vehicle pass through.

Portico A large porch, usually with a pediment roof supported by columns.

Preservation The retention of valuable existing elements of a building.

Pueblo Distinctive style of flat-roofed stucco structures taken from the Pueblo tribes of the Southwest.

Purlin A horizontal structural member parallel to the ridge, supporting the rafters. Can extend out from the gable end.

Quatrefoil An ornamental shape, usually recessed or cut out, of four equal lobes with a petal-like appearance; often seen in Gothic architecture.

Quoin Heavy blocks of stone or brick forming a unique design to accentuate the corners of a building.

Rafter Part of a wood roof frame, extending from the ridge to the eaves.

Rehabilitation Returning a property to a state of utility through repair or alteration which makes possible an efficient contemporary use while preserving those portions or features of the property which are significant to its historical, architectural, and cultural values.

Remodeling The redesign of a building such that the basic characteristics may be severely altered in order to create a “modern” look or a change in style.

Architectural Glossary

Renovation The introduction of new elements such as modern plumbing and mechanical systems in the context of rehabilitation.

Restoration Accurately recovering the form and details of a property and its setting as it appeared at a particular period of time by means of the removal of later work or by the replacement of missing earlier work.

Reuse The use of a building for a purpose other than that for which it was originally designed.

Reveal The vertical side of a doorway or window frame where it meets the adjacent wall surface.

Revival Styles Any of a number of architectural styles that adapt recognizable decorative features and forms of earlier historical styles for simplified use in contemporary buildings. This mode was popular in twentieth century American architecture particularly in the 1920s through the 1940s, and includes styles such as Italian Renaissance Revival, Spanish Colonial Revival, Colonial Revival, Gothic Revival, Tudor Revival, etc.

Ridge The horizontal line formed where the tops of two roof surfaces meet.

Ridge Board The topmost horizontal member of a roof frame into which the upper ends of the rafters are fastened.

River Stone Distinctive large rounded and multi colored stones taken from river beds used extensively on foundations, porches and piers during the Craftsman era.

Saltbox A house form, one-and-a-half or two-stories in height, characterized by a roof with a shorter slope in front and a longer slope in back, extending close to the ground.

Sash A separate moving or fixed part of the window in which the glass is set.

Sawnwork Decorative embellishments appearing in the 1880s (in the Queen Anne style) cut with a saw and applied to the exterior face.

Secretary of the Interior's Standards for Rehabilitation Standards developed by the Secretary of the Interior to assist the longterm preservation of a property's significance through the preservation of historic materials and features. The Standards pertain to historic buildings of all materials, construction types, sizes, and occupancy and encompass the exterior and interior of the buildings as well as related landscape features and the environment of the building site. Many state and local municipalities use the Standards for reviewing preservation projects. The Standards are also used by the State Office of Historic Preservation in determining whether a rehabilitation qualifies as a "certified rehabilitation" for federal tax purposes. See page 19.

Shake Any thick hand-split shingle or clapboard formed by splitting a short log into tapered radial sections along the grain.

Sheathing The covering of a wall surface or roof base material.

Shed Roof A single-slope roof as seen on a lean-to.

Shingle A roofing unit of wood, asphalt material, slate, tile, concrete, asbestos cement, or other material cut to stock lengths, widths, and thickness.

Shiplap Siding Early siding consisting of wide horizontal boards with "u" or "v" shaped grooves between them.

Shutter A wood or metal window covering on the exterior of a building that closes to protect a window behind it; usually in pairs flanking a window opening, and often used as a decorative and/or non-functional feature.

Sidelights Long narrow windows on each side of a door or larger window. Often contain decorative glass.

Siding The covering of an exterior wall surface.

Sill The exterior horizontal member on which a window frame rests.

Soffit The finished underside of an eave.

Stair Riser The vertical member of a step under the tread, i.e., the front of a step.

Stair Stringer The long, sloping side boards of a staircase that support the ends of the risers and treads.

Stair Tread The horizontal member of a stair step, i.e., the top of a step.

Architectural Glossary

State Historical Building Code (SHBC) Designed to protect the state's architectural heritage by recognizing the unique construction problems inherent in historic buildings, and provide alternative building regulations for the rehabilitation, preservation, restoration, or relocation of designated historic buildings. SHBC regulations are intended to facilitate restoration or accommodate change of occupancy while preserving a historic building's original architectural elements and features. The code also addresses occupant safety, encourages energy conservation, provides a cost-effective approach to preservation, and facilitates accessibility issues.

State Office of Historic Preservation (SHPO) Responsible for administering preservation programs set up by federal and state law. Each state has such an office, established by the National Historic Preservation Act of 1966, headed by the State Historic Preservation Officer (SHPO) who is appointed by the governor. California is also served by the State Historical Resources Commission (SHRC), a group of qualified citizens which is also appointed by the governor.

Stucco An exterior finish of varying texture, composed of Portland cement, lime, and sand mixed with water.

Swag A draping ornamental garland depicting some combination of leaves, fruit, or flowers, often in plaster or carved wood, featured in relief on a flat surface such as a fireplace mantel or entablature.

Symmetrical An arrangement of forms or features in which both sides are the same, or very well-balanced, on either side of a central dividing line.

Terra Cotta A fine grained, brown-red fired clay used for roof tiles and decorations; literally, cooked earth.

Transom A fixed or operable window above a door or window.

Trefoil A design of three lobes, similar to a cloverleaf.

Turned The procedure by which a wood baluster or porch support is given a decorative shape by a carpenter.

Turrett A small, slender tower usually at the corner of a building, often containing a circular staircase.

Veranda A roofed open gallery or porch, sometimes extending around two sides of a building.

Vernacular A common or generic mode of building that relies on local materials and forms, created without the aid of architects or other design professionals.

Vestibule A small foyer leading into a larger space.

Viga Spaced wooden beams used to support the roof of a pueblo structure, usually project through the outer walls. Modern use on Territorial style designs (which resemble the Mediterranean Revival) is usually ornamental.

Visibile from the public right-of-way Any portion of a historic resource that is visible from the public street or sidewalk immediately adjacent to the property.

Wing Wall A small wall extending from the main portion of a building, often with a gate or small archway set into it.

Witch's Cap A cone-shaped tower roof.

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Appendix B

Architectural Style Guide

Appendix Overview

This Appendix provides a brief overview of the historic architectural styles known to exist in Redlands, and lists the common character-defining features of each style. This guide to architectural styles is broadly applicable to designated and undesignated properties alike.

Use this Appendix If...

- You are wondering what your historic building's architectural style is.
- You are undertaking a rehabilitation or restoration of your historic building and need to know which features are original and characteristic of the style, and which are not.
- You are designing a new building within a historic district and need guidance on making the new style and features compatible with the historic architectural styles in the district.

What's Inside...

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- Eastlake/Stick
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- Mission Revival
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- Tudor Revival
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- American Colonial Revival
- Exotic Revival

Modernism
- Art Deco
- Moderne
- Mid-Century Modern
- Late Modern

Ranch
- Traditional Ranch
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Victorian-Era Architecture

Introduction

Victorian-era architecture became popular in the United States during the 1860s when new advances in construction (i.e. the creation of the lighter wood "balloon" framing, and wire nails) allowed for more complicated building forms. Victorian styles reflect these changes through their extravagant detailing an complex volumes. Victorian-era architecture was further popularized during the Centennial celebrations of 1876, becoming the dominant architectural idiom of the 20th century. Victorian architecture is loosely derived from medieval prototypes, typically featuring multi-colored or multi-textured walls, steeply pitched roofs, and asymmetrical façades. By the turn of the century, Victorian styles had moved out of favor, replaced with America's first truly modern styles, Craftsman and Prairie.

Second Empire

The Second Empire style is rooted in the reign of Napoleon III from 1852 to 1870, reflecting Paris' late 19th century redevelopment into a city of wide avenues and monumental buildings. This reconstruction of a formerly medieval city was very influential on architectural design in Europe and the United States, particularly on institutional designs. Intended to exude a feel of stability and wealth, the Second Empire style is marked by mansard rooflines; heights of two stories or more; cladding of brick, stone, or wood; and decorative details like stickwork, ornamented trim, and pilasters.

Common character-defining features of the Second Empire style include:

- Usually two stories in height
- Simple rectangular building forms
- Shiplap exteriors, sometimes with fish scale shingles below the Mansard roof
- Mansard roofs with high pitched surfaces, sometimes with cupolas
- Eastlake detailing on symmetrical front porches
- Double-hung windows, sometimes with hoods or pediments

Victorian-Era Architecture

Eastlake/Stick

The Eastlake or Stick style emerged in the 1860s as a transitional style combining elements of the earlier Gothic Revival style and the subsequent Queen Anne style. The style was influenced by the Picturesque Gothic ideals of Andrew Jackson Downing and popularized through pattern books in the 1860s and '70s. The architectural idiom is largely defined by its decorative details, including multi-textured wall surfaces, horizontal, vertical, and diagonal stickwork, embellished trusses, brackets, and ornamented trim. Eastlake/Stick architecture was rapidly replaced by the Queen Anne style in the 1880s, which was far more influential and widespread.

Common character-defining features of the Eastlake/Stick style include:

- Steeply pitched gable roofs, typically with cross gables
- Overhanging eaves, often with exposed rater tails
- Embellished truss detailing
- Brackets (in town house examples of the style)
- Multi-textured, patterned wood cladding
- Horizontal, vertical, and diagonal stickwork detailing applied to wall surfaces

Victorian-Era Architecture

Queen Anne

The Queen Anne style is a late example of Victorian-era architecture that emerged in the United States in the late 1870s. Pattern books and pre-cut architectural details helped to disseminate the style across the country. Queen Anne architecture is characterized by steeply-pitched roofs, complex and asymmetrical building volumes, partial or full-width porches, textured shingles, and decorative spindlework.

Common character-defining features of the Queen Anne style include:

- Two stories in height
- Complex building volumes and asymmetrical façades
- Steeply-pitched roofs of irregular shape
- Dominant front-facing gables
- Patterned wood shingles
- Partial or full-width porches
- Single-pane double-hung wood sash windows
- Decorative spindlework and half-timbering

Victorian-Era Architecture

Vernacular Types

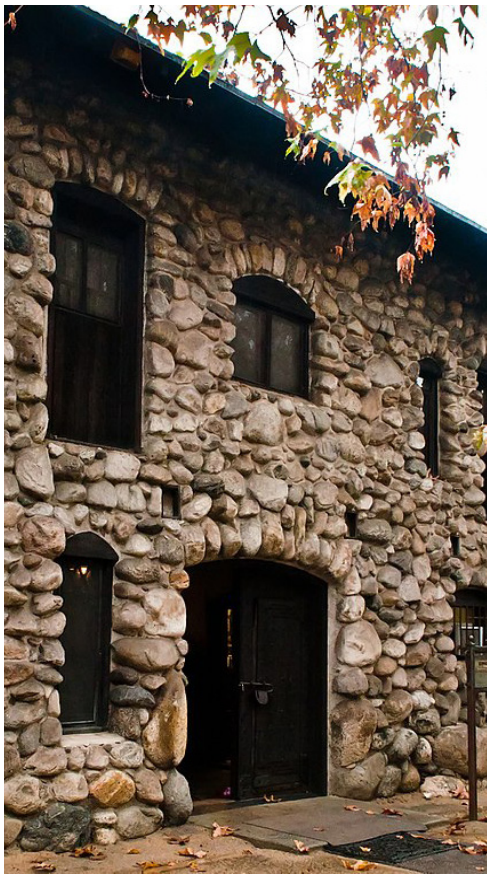
From the 1870s to the early 1900s, a number of vernacular building styles applied much-simplified elements of more opulent Victorian styles like Queen Anne to modest one-story cottages. These dwellings typically had complex rooflines dominated by either a gable or hipped primary roof, and some adopted features popular in the Arts and Crafts era as well as some basic characteristics of the Queen Anne style. Partial-width or full-width porches are very common features of vernacular Victorian-era buildings. Modest in size and appearance, these dwellings were popular in Redlands at the turn of the 20th century.

Common character-defining features of vernacular Victorian-era architecture include:

- One or one-and-a-half stories
- Box-like shape
- Hipped or gable roof, with or without central dormer
- Wide overhanging eaves, often boxed
- Wood clapboard siding
- Partial or full-width porches
- Single-pane double-hung wood sash windows

Arts and Crafts Movement

Introduction



The Arts and Crafts movement emerged in England as a reaction against the materialism brought about by the Industrial Revolution. Led by English designer William Morris, the movement focused on simplicity of form, direct response to site, informal character, and extensive use of natural materials. At the turn of the 20th century, the Arts and Crafts movement had made its way to North America and gained popularity through the efforts of Elbert Hubbard and Gustav Stickley, as well as other designers, architects, and builders who advocated the ideals set forth by Morris. The Arroyo Seco, a valley stretching from the San Gabriel Mountains above Pasadena through northeast Los Angeles, became a major center of the Arts and Crafts movement in the United States. Charles Fletcher Lummis and George Wharton James, along with artists and architects such as William Lees Judson, Frederick Roehrig, and Sumner Hunt, contributed to the development of the Arroyo Culture, the regional manifestation of the Arts and Crafts movement in Southern California.

The Arts and Crafts movement was popularized throughout Southern California by Pasadena-based brothers Charles and Henry Greene, whose interest in Japanese wooden architecture, training in the manual arts, and knowledge of the English Arts and Crafts movement helped to develop regional Arts and Crafts styles. The styles were then applied to a range of residential property types, from modest one-story “bungalows” to grand two-and-a-half story houses.

Arts and Crafts Movement

Craftsman

The Craftsman style is largely a California phenomenon that evolved out of the Arts and Crafts movement at the turn of the 20th century, a time during which Southern California was experiencing tremendous growth in population, expansion of homeownership, and new aesthetic choices. Craftsman architecture combines Swiss and Japanese elements with the artistic values of the Arts and Crafts movement. The style began to lose popularity in the 1920s with the emergence of Period Revival styles.

Common character-defining features of the Craftsman style include:

- One or two stories in height
- Building forms that respond to the site
- Low-pitched gabled roofs
- Broad, overhanging eaves with exposed structural members such as rafter tails, knee braces, and king posts
- Shingled exteriors (occasionally clapboard or stucco)
- Broad front entry porches of half- or full-width, with square or battered columns
- Extensive use of natural materials for columns, chimneys, retaining walls, and landscape features
- Casement windows situated into groups
- If the Airplane variation of Craftsman, then has a "pop-up" second story
- If Japanese-influenced, then may have multi-gabled roofs or gables that peak at the apex and flare at the ends.
- If Chalet-influenced, then may have single, rectangular building forms, front-facing gabled roofs, second-story balconies, and flat balusters with decorative cutouts or decorative brackets and bargeboards.

Arts and Crafts Movement

American Foursquare/Classic Box

The American Foursquare/Classic Box style is an early, fairly modest style of the Arts and Crafts movement. It was used widely across the United States, including in Southern California, due to its practicality and ease of construction made possible by pattern books and mail order house catalogs at the turn of the century. The style is characterized by its box-like form, two- to two-and-a-half-story height, and lack of ornate detail.

Common character-defining features of the American Foursquare/Classic Box style include:

- Two stories in height
- Simple, rectangular building forms
- Clapboard exteriors (occasionally shingle or stucco)
- Low-pitched hipped roofs
- Large centrally located hipped dormers
- Substantial front porches
- Double-hung sash windows

Arts and Crafts Movement

Shingle

The Shingle style is an early style of the Arts and Crafts movement, reflecting some carryover from Victorian styles like Queen Anne and Eastlake/Stick. As its name suggests, it is characterized by the covering of all or nearly all of a building with wood shingles stained a single color, reflecting the natural aesthetic of Arts and Crafts. Shingle-style buildings are typically two stories in height, though smaller examples are sometimes found, and have asymmetrical façades, steeply pitched roofs, and large porches. They often incorporate Craftsman-style elements like exposed rafter tails and wood brackets.

Common character-defining features of the Shingle style include:

- Asymmetrical façades and roof forms
- Complex cross-gables and front-facing gables
- Occasional use of gambrel roof
- Clad with stained shingles in natural tones
- Simple eaves
- Rough-hewn stone foundations and porch supports
- Rectangular, grouped, double-hung windows

Arts and Crafts Movement

Stone Buildings

As the Arts and Crafts movement emphasized natural materials, several of its related architectural styles incorporate natural stone (both unmodified arroyo stone and cut stone) as a common feature. Stone buildings are clad entirely in stone, typically unmodified arroyo stone as seen in groupings adjacent to arroyos and washes; buildings clad in a mix of stone types or entirely in cut stone are less common but still representative examples of this Arts and Crafts-related idiom. These buildings often took a long time to construct and reflected eclectic design influences as well as the idiosyncrasies of the builder; some have distinctive vernacular/folk art elements.

Common character-defining features of the Stone Buildings style include:

- One or two stories in height
- Elevations clad fully with natural and/or cut stone
- Hipped or gabled roofs with overhanging eaves
- Small, recessed window openings

Period Revival

Introduction

By the late 1910s, Period Revival architecture prevailed throughout Southern California. A range of styles associated with Europe and Colonial America inspired Period Revival architecture in the early 20th century. These styles remained a popular choice for residential design through the late 1930s and early 1940s. By World War II, Period Revival architecture had largely given way to styles such as Minimal Traditional and Mid-Century Modern, which were more pared down and embraced more contemporary materials in lieu of references to the past.

Mission Revival

The Mission Revival style, which some consider the first indigenous architectural mode developed after California became part of the United States, was made popular in the Southwest through its use in the design of hotels and stations constructed for the Santa Fe and Southern Pacific Railroad companies. Though a prevalent style for civic architecture in Southern California in the early 20th century and a particularly prominent style in Redlands buildings of the period, the style lost popularity after the 1915 Panama-California Exposition and the emerging dominance of Spanish Colonial Revival architecture.

Common character-defining features of the Mission Revival style include:

- One or more stories in height
- Horizontal emphasis
- Hipped, tile-covered roofs
- Projecting eaves supported by exposed rafters
- Stucco exterior
- Espadañas, bell towers, and domes
- Rounded arches and arcades
- Impost moldings and continuous stringcourses around openings
- Verandas, patios, and courtyards
- Buttresses, especially at building corners
- General lack of ornamentation or use of Moorish-inspired decoration

Period Revival

Spanish Colonial Revival

Spanish Colonial Revival architecture gained widespread popularity throughout Southern California after the 1915 Panama-California Exposition in San Diego. The exposition's buildings were designed by architect Bertram Grosvenor Goodhue, who wished to go beyond the popular Mission architectural interpretations of the state's colonial past and highlight the richness of Spanish precedents found throughout Latin America. The exposition prompted other designers to look directly to Spain for architectural inspiration. The Spanish Colonial Revival style was an attempt to create a "native" California architectural style that drew upon and romanticized the state's colonial past.

The popularity of the Spanish Colonial Revival style coincided with Southern California's population boom of the 1920s. The versatility of the style, allowing for builders and architects to construct buildings as simple or as lavish as money would permit, helped to further spread its popularity throughout the region. The style's adaptability also lent its application to a variety of building types, including single- and multi-family residences, commercial properties, and institutional buildings. Spanish Colonial Revival architecture often borrowed from other styles such as Churrigueresque, Italian Villa Revival, Gothic Revival, Moorish Revival, or Art Deco. The style is characterized by its complex building forms, stucco-clad wall surfaces, and clay tile roofs. The Spanish Colonial Revival style remained popular through the 1930s, with later versions simpler in form and ornamentation.

Character-defining features of Spanish Colonial Revival architecture include:

- Complex massing and asymmetrical façades
- Incorporation of patios, courtyards, loggias, or covered porches and/or balconies
- Low-pitched gable or hipped roofs with clay tile roofing
- Coved, molded, or wood-bracketed eaves
- Towers or turrets
- Stucco wall cladding
- Arched window and door openings
- Single and paired multi-paned windows (predominantly casement)
- Decorative stucco or tile vents
- Use of secondary materials, including wrought iron, wood, cast stone, terra cotta, and polychromatic tile.

Period Revival

Mediterranean Revival

Mediterranean Revival architecture became increasingly prevalent in Southern California during the 1920s, largely because of California's identification with the region as having a similar climate, and the popularity of Mediterranean-inspired resorts along the Southern California coast. Loosely based on 16th century Italian villas, the style is formal in massing, with symmetrical façades and grand accentuated entrances.

Common character-defining features of the Mediterranean Revival style include:

- Two stores in height
- Rectangular plan
- Symmetrical façade
- Dominant first story, with grand entrances and larger fenestration than upper stories
- Low-pitched hipped roofs with clay tile roofing
- Boxed eaves with carved brackets
- Stucco exteriors
- Entrance porches
- Arched entryways and window openings
- Decorative wrought iron elements
- Eclectic combination of stylistic features from several countries of the Mediterranean

Period Revival

Pueblo Revival

Pueblo Revival architecture evolved out of California at the turn of the 20th century. The style drew from flat-roofed iterations of Spanish Colonial Revival architecture and Native American pueblos. Pueblo Revival buildings are characterized by their flat roofs with parapets, projecting wooden roof beams (vigas) that extend through walls, and stucco wall surfaces. As with many Period Revival styles, the architectural idiom reached its height in popularity during the 1920s and '30s in Southern California.

Common character-defining features of Pueblo Revival architecture include:

- One story in height
- Flat roofs with parapets
- Stepped-back roof line
- Irregular stuccoed wall surfaces, often earth colored
- Rough-hewn vigas (roof beams)
- Rough-hewn window lintels and porch supports

Period Revival

Classical Revival

The Classical Revival style, which includes the variants of Neoclassical Revival, Beaux Arts and Greek Revival, was very popular across the United States from the turn of the century well into the 1920s. The resurgence of interest in Classical Revival architecture is often attributed to the City Beautiful movement as popularized at the 1893 World Columbian Exposition in Chicago. This style is characterized by symmetrical façades, columns, and pediments on buildings that are usually two stories in height.

Common character-defining features of the Classical Revival style include:

- Massive symmetrical and rectilinear form
- Low pitched roof
- Decorative dentils along eaves
- Triangular pediments supported by classic columns
- Large rectangular windows, usually arranged singularly
- Decorative plaster elements
- Masonry walls
- Color schemes indicative of stone and masonry construction

Period Revival

Tudor Revival

The Tudor Revival style was loosely based on a variety of Medieval and 16th- 17th century English building traditions, ranging from thatched-roof Tudor cottages to grandiose Elizabethan and Jacobean manor houses. The first Tudor Revival-style houses appeared in the United States at the end of the 19th century. These houses were typically elaborate and architect-designed. Much like other Period Revival styles, Tudor Revival architecture became extremely popular during the 1920s population boom in Southern California. Masonry veneering techniques of the 1920s and '30s helped to further disseminate the style, as even modest houses could afford to mimic the brick and stone exteriors of traditional English designs.

Tudor Revival architecture is characterized by its asymmetry, steeply-pitched gable roofs, decorative half-timbering, and prominent chimneys. High style examples are typically two to three stories in height and may exhibit leaded glass diamond-paned windows and slate roof shingles. The popularity of the Tudor Revival style waned during the Great Depression as less ornate building designs prevailed. Although the style continued to be used through the 1930s, later interpretations of Tudor Revival architecture were much simpler in terms of form and design.

Character-defining features of Tudor Revival architecture include:

- Irregular massing and asymmetrical façades
- Steeply-pitched gable roofs with a prominent front-facing gable and slate, wood shingle, or composition shingle roofing
- Rolled, pointed, and/or flared eaves, sometimes with exposed rafter tails
- Prominent chimneys
- Brick, stone, or stucco wall cladding
- Decorative half-timbering
- Entrance vestibules with arched openings
- Multi-paned casement windows that are tall, narrow, and typically arranged in groups

Period Revival

French Revival/Chateauesque

A variety of architectural styles inspired by various periods of French architecture appeared in the United States during the 1910s. During the 1920s population boom in Southern California, the French Revival style was commonly applied to single-family residences as well as multi-family apartment buildings. Earlier examples were typically more eclectic and ornate than refined versions that developed later. Chateauesque variants commonly have pronounced corner turrets, a more vertical orientation, and more elaborate detailing

Character-defining features of French Revival/Chateauesque architecture include:

- One or two stories in height
- Steeply-pitched, hipped roofs
- Eaves commonly flared upward
- Towers or turrets
- Massive chimneys
- Stucco, stone, or brick exteriors
- Casement or double-hung sash windows
- French doors
- Range of architectural detailing including quoins, pediments, and pilasters

Period Revival

American Colonial Revival

American Colonial Revival architecture experienced a resurgence during the 1920s population boom in Southern California. The style used elements from a variety of earlier classically-based architectural modes, including Neoclassical, Federal, and Georgian. Early examples of the style were typically single-family residences. By the 1930s and early 1940s, the style was often employed in the design of multi-family residential and small-scale commercial properties as well.

Common character-defining features of the American Colonial Revival style include:

- Typically one or two stories in height
- Simple building forms
- Symmetrical façades
- Hipped or gable roofs, typically with boxed eaves
- May display multiple roof dormers
- Clapboard or brick exteriors
- Multi-paned double-hung sash windows that are often paired
- Entryways accentuated with classical detailing
- Paneled front door, sometimes with sidelights and transom or fanlight
- Details may include pediments, columns or pilasters, and fixed shutters

Period Revival

Exotic Revival

Exotic Revival architecture emerged in the United States as early as the 1830s and was patterned after similar movements occurring in 19th-century Europe. The architectural idiom, which includes subsets such as Egyptian Revival and Moorish Revival, experienced a resurgence in Southern California in the 1910s and '20s, largely due to popular media, accessibility of travel, and archaeological investigation. The resurgence of the style was typically more flamboyant and expressive than in the 19th century, and more often applied to grander, large-scale civic buildings as well as new building types like movie theaters and skyscrapers. Popularity of the style waned in the 1930s, when a more minimalist, austere approach to architecture took hold during the Great Depression.

Typical character-defining features of the Exotic Revival style include:

- Courtyards
- Masonry or stucco cladding
- Window openings embellished with corbels, decorative crowns, or grillwork
- Geometric decorative elements
- Flat or low-pitched roofs in Egyptian examples
- Thick columns or pilasters in Egyptian examples
- Arched openings, domes, and minarets in Moorish examples

Modernism

Introduction

Modernism is an umbrella term that is used to describe a mélange of architectural styles and schools of design that were introduced in the early 20th century, honed in the interwar years, and ultimately came to dominate the American architectural scene in the decades following World War II. The tenets of Modernism are diverse, but in the most general sense the movement eschewed past traditions in favor of an architectural paradigm that was more progressive and receptive to technological advances and the modernization of society. It sought to use contemporary materials and building technologies in a manner that prioritized function over form and embraced the "authenticity" of a building's requisite elements. Modernism, then, sharply contrasted with the Period Revival movement that dominated the American architecture scene in years past, as the latter had relied wholly on historical sources for inspiration.

Modernism is rooted in European architectural developments that made their debut in the 1920s and coalesced into what became known as the International style. Championed by some of the most progressive architects of the era – including Le Corbusier of France, and Walter Gropius and Mies van der Rohe of Germany – the International style took new building materials such as iron, steel, glass, and concrete and fashioned them into functional buildings for the masses. These ideas were introduced to Southern California in the 1920s upon the emigration of Austrian architects Richard Neutra and Rudolph Schindler. Neutra and Schindler each took the "machine-like" aesthetic of the International style and adapted it to the Southern California context through groundbreaking residential designs. While Neutra and Schindler were indisputably pioneers in the rise of Southern California Modernism, it should be noted that their contributions dovetailed with the work of figures such as Frank Lloyd Wright and Irving Gill, both of whom had experimented with creating a Modern aesthetic derived from regional sources.

Prior to World War II, Modernism was very much a fringe movement that was relegated to the sidelines as Period Revival styles and other traditional idioms prevailed. Its expression was limited to a small number of custom residences and the occasional low-scale commercial building. However, Americans' perception of Modern architecture had undergone a dramatic shift by the end of World War II. An unprecedented demand for new, quality housing after the war prodded architects and developers to embrace archetypes that were pared down and replicable on a mass scale. As a whole, Americans also gravitated toward an aesthetic that embraced modernity and looked to the future – rather than to the past – for inspiration, an idea that was popularized by John Entenza's Arts and Architecture magazine and its highly influential Case Study House program. Modern architecture remained popular for the entirety of the postwar era, with derivatives of the movement persisting well into the 1970s.

Modernism

Art Deco

The Art Deco style emerged in the United States in the 1920s, inspired primarily by Eliel Saarinen's 1922 unrealized design for the Chicago Tribune building and the 1925 *Exposition Internationale des Arts Décoratifs et Industriels Modernes* in Paris. Considered the first major style to consciously reject historical precedents (unlike its Period Revival counterparts), Art Deco drew on the industry of the Machine Age for designs applicable to anything from jewelry to skyscrapers. The style enjoyed an intense but relatively brief period of popularity in Southern California, from the late 1920s until the late 30s. In Redlands, the style was primarily employed in commercial and institutional buildings, although some residential examples may exist.

Art Deco is characterized by its vertical emphasis (enhanced by elements like fluted pilasters, stepped towers, piers, and spires), flat roofs with parapets, steel fixed or casement windows, and smooth wall surfaces (typically stucco). Despite Modern tendencies, the style also embraced ornamentation that was uninhibited and extravagant. Decoration included highly stylized, geometric motifs such as zigzags, chevrons, spirals, steps, ziggurats, and pyramids. Ornate metalwork and bold colors were highlights of the style. Ornamentation also depicted motifs found in ancient mythology and indigenous cultures, as well as local flora, fauna and natural features; the latter is commonly seen in Southern California-inspired imagery such as sunbursts, seashells, foliation, and scenes of paradise. The vibrant, exhilarating images that resulted reflected a society that was very much living in the moment.

Typical character-defining features of the Art Deco style include:

- Emphasis on verticality, with elements like towers, piers, spires, and fluster pilasters
- Smooth wall surfaces, such as stucco
- Flat roof, often with shaped or stepped parapets, vertical projections, or towers
- Zigzags, chevrons, natural imagery, and other stylized and geometric motifs as decorative elements on façade
- Metal windows, often fixed sash and casement

Modernism

Moderne

Moderne architecture, commonly reflected in the sub-styles of Streamline Moderne, PWA Moderne, or, in its later iterations, Late Moderne, materialized during the Great Depression when the highly-stylized Art Deco mode had become perceived as excessive and overly flamboyant. The architectural mode was relatively inexpensive to build due to its lack of ornamentation and use of less labor-intensive building materials such as concrete and plaster. Inspired by the industrial designs of the time, the Moderne style was popular throughout the country in the late 1930s and continued to be applied, primarily to commercial and institutional buildings, through the mid-1940s. Moderne architecture is characterized by its sleek, aerodynamic form and horizontal emphasis.

Character-defining features of Moderne architecture include:

- Horizontal emphasis
- Flat roofs with parapets
- Smooth, typically stucco wall surfaces
- Curved wall surfaces
- Steel fixed or casement windows, sometimes located at corners
- Horizontal moldings (speedlines)

Modernism

Mid-Century Modern

In Southern California, Mid-Century Modern architecture was prevalent between the mid-1940s and mid-1970s. While the style was a favorite among some of Southern California's most influential architects, its minimal ornamentation and simple open floor plans lent itself to the mass-produced housing developments of the postwar period. Mid-Century Modern architecture typically incorporated standardized and prefabricated materials that also proved well-suited to mass production. Subsets of the Mid-Century Modern style include Googie, which is a highly exaggerated, futuristic aesthetic, typically employing upswept or folded plate roofs, curvaceous, geometric volumes, and neon signage, and Mimetic, which is characterized by its application of objects or forms that resemble something other than a building. The Mid-Century Modern style and its subsets were broadly applied to a wide variety of property types ranging from residential subdivisions and commercial buildings to churches and public schools.

Common characteristics of Mid-Century Modern architecture include horizontal massing, open floor plans, wide overhanging eaves, large expanses of glass, exposed structural members, and dramatic rooflines (including A-frames).

Character-defining features of Mid-Century Modern architecture include:

- Horizontal massing
- Expressed post-and-beam construction ,typically in wood or steel
- Flat or low-pitched roofs
- Wide overhanging eaves
- Horizontal elements such as fascias that cap the front edge of the flat roofs or parapets
- Stucco wall cladding at times used in combination with other textural elements, such as brick, clapboard, or concrete block
- Aluminum windows grouped within horizontal frames
- Oversized decorative elements or decorative face-mounted light fixtures

Modernism

Late Modern

Late Modern is a blanket term that is used to describe an iteration of Modern architecture that came of age between the mid-1950s and 1970s. Compared to their Mid-Century Modern predecessors, which stressed simplicity and authenticity, Late Modern buildings exhibited a more sculptural quality that included bold geometric forms, uniform glass skins on concrete surfaces, and sometimes a heightened expression of structure and system. Subsets of the Late Modern style include New Formalism, which integrates classical elements and proportions, and Brutalism, which typically features exposed, raw concrete (béton brut) and an expression of structural materials and forms. Late Modern architecture was almost always applied to commercial and institutional buildings and is associated with such noted architects as Marcel Breuer, Philip Johnson, and Cesar Pelli.

Character-defining features of Late Modern architecture include:

- Bold geometric volumes
- Modular design dictated by structural framing and glazing
- Unrelieved wall surfaces of glass, metal, concrete, or tile
- Unpainted, exposed concrete surfaces
- Unapparent door and window openings incorporated into exterior cladding or treated exterior form
- Minimal ornamentation

Ranch

Introduction

Ranch style architecture first appeared in Southern California in the 1930s. Inspired by the Spanish and Mexican-era haciendas of Southern California and the vernacular, wood-framed farmhouses dotting the landscape of Northern California, Texas, and the American West, the style projected an informal, casual lifestyle that proved to be immensely popular among the American public. Early iterations of the Ranch style tended to be large, sprawling custom residences that were designed by noted architects of the day. However, after World War II, Ranch style architecture was pared down and also became a preferred style for economical, mass-produced tract housing. By some estimates, nine of every ten new houses built in the years immediately after World War II embodied the Ranch style in one way or another. The style remained an immensely popular choice for residential architecture – and was occasionally adapted to commercial and institutional properties as well – until it fell out of favor in the mid-1970s.

Ranch

Traditional Ranch

Traditional Ranch style architecture made its debut in the 1930s and is what is generally considered to be the "quintessential Ranch house." Buildings designed in the style were awash in historical references associated with the vernacular architecture of 19th century California and the American West, and generally took on a distinctive, rusticated appearance. Examples of Traditional Ranch architecture were prominently featured in general interest publications, notably Sunset magazine, which perpetuated the style's popularity and led to its widespread acceptance among the American public.

The Traditional Ranch style is almost always expressed in the form of a one-story, single-family house, although the style was occasionally adapted to commercial and institutional properties in the postwar era. It is distinguished from other iterations of the Ranch style by the application of elements associated with the working ranches of 19th century California and the American West. Features such as low-pitched roofs with wide eaves, a combination of wall cladding materials including board-and-batten siding, large picture windows, and brick and stone chimneys were commonly applied. Subsets of the Traditional Ranch style include the American Colonial Ranch, which features elements associated with the American Colonial Revival style (symmetrical façades, cupolas, classical details); the Hacienda Ranch, which loosely resembles the haciendas of late 19th century California, incorporating clay tile roofing and textured stucco exteriors; and the Minimal Ranch, which is a pared down version of the Traditional Ranch, featuring simple floor plans and restrained ornamentation.

Character-defining features of Traditional Ranch style architecture include:

- One-story configuration (two story Ranch houses are rare)
- Asymmetrical composition with one or more projecting wings
- Horizontal massing
- Low-pitched gable or hipped roof, originally clad with wood shakes.
- Wide eaves and exposed rafters
- Brick or stone chimneys
- Combination of wall cladding materials (wood board-and-batten siding is most common)
- One or more picture windows
- Multi-light wood windows, often with diamond panes
- Decorative wood shutters
- Dutch and/or French doors
- Attached garage, often appended to the main house via a breezeway

Ranch

Contemporary Ranch

Contemporary Ranch architecture emerged after World War II. Buildings designed in the style took on the basic form, configuration, and massing of the Traditional Ranch house, but instead of historically-inspired treatments and details they incorporated the clean lines and abstract geometries associated with Modernism. The Contemporary Ranch style offered an alternative to the Traditional Ranch house and was applied to scores of residential buildings constructed between the mid-1940s and 1970s.

Like the Traditional Ranch houses from which it is derived, the Contemporary Ranch style is almost always expressed in the form of a one-story, single-family house. In lieu of the historicist references and rusticated features that are associated with the Traditional Ranch style, Contemporary Ranch houses exhibit abstract geometries and contemporary details that are most often seen in Mid-Century Modern architecture. Post-and-beam construction was common; carports often took the place of garages; exterior walls tended to be clad in a more simplistic palette composed of stucco and wood; roofs were of a lower pitch and were often more expressive or flamboyant in form; and ornament tended to be more abstract in character and was applied more judiciously. Oriental and Polynesian-inspired motifs were often incorporated into the design of Contemporary Ranch houses.

Character-defining features of Contemporary Ranch style architecture include:

- One story configuration (two-story Ranch houses are rare)
- Asymmetrical composition with one or more projecting wings
- Horizontal massing and abstract form
- Post-and-beam construction
- Low-pitched gable or hipped roof, sometimes with expressionist qualities
- Combination of wall cladding materials, generally including stucco and wood siding
- Windows and doors are generally treated as void elements
- Abstract ornamental details
- Incorporation of Oriental and Polynesian motifs is common
- Carports are common and often take the place of an attached garage

Appendix C

Material Inspection Checklists

Appendix Overview

Regular inspection of your historic building's materials will enable repairs of small problems before they become large. This Appendix contains building material inspection checklists in "flash card" form for quick and easy reference, organized by material type (masonry, stucco, wood, metalwork, windows/doors, and roofing/drainage). Each card tells you what problems to look for, and recommends the appropriate actions to address them.

Use this Appendix If...

- You notice cracking, sagging, or other visible problem with your historic building and need to know what it means and how to fix it.
- You want to catch minor problems with your building's materials through a routine inspection you can perform yourself.
- You are considering buying a historic building and want guidance in spotting major issues (keeping in mind that the checklists are not a sufficient substitute for a full inspection by a qualified professional).

What's Inside...

Exterior Masonry
Stucco
Exterior Wood
Roofing
Windows and Doors
Metalwork

Exterior Masonry

Regular inspection and maintenance of your exterior masonry materials is very important, particularly since most masonry elements are often used as part of the structural system. Visually inspect your property often, and look for potential damage conditions, including the following:

Structural Problems

What to Look For	*Recommended Action*
Cracks in masonry wall Vertical or diagonal cracks through walls and masonry units Horizontal cracks and hairline cracks in mortar joints	Can indicate differential or uneven foundation settlement or significant structural problems. Consult a professional, particularly if the condition worsens. Vertical or diagonal cracks, or cracks that split individual units, often represent a more significant problem, such as differential settlement. Horizontal cracks or hairline cracks limited to mortar joints or individual units tend to be less severe. Monitor and document the conditions during each inspection to see if they worsen over time; and after repair, to see if they return. Crack monitors or similar tell-tale gauges may also be used to help monitor problem areas.
Bowing or bulges in the wall plane; leaning walls	Can indicate differential settlement or significant structural problems. Consult a professional, particularly if the condition worsens.

Masonry Units (Brick and Stone)

What to Look For	*Recommended Action*
Cracked units Missing Units Spalling, chipped edges Crumbling and flaking of surfaces Rust stains, cracking and spalling (from embedded metal) Poor previous repairs	Repair masonry units. Consult a professional for specific repairs or recommendations Repairs can include infilling cracks with color-matched mortars or grouts; pinning cracked units back together; patching spalled or missing portions with color-matched patching mortars; resetting loose units with new mortar; and replacing heavily damaged or missing units with new. There may also be associated repairs needed for embedded metals or flashings. When replacing with new, match existing masonry units in type, color, texture, size, shape, bonding pattern and compressive strength.

Exterior Masonry

Masonry Units (Brick and Stone)

What to Look For	*Recommended Action*
Cracked units Missing Units Spalling, chipped edges Crumbling and flaking of surfaces Rust stains, cracking and spalling (from embedded metal) Poor previous repairs	Repair masonry units. Consult a professional for specific repairs or recommendations Repairs can include infilling cracks with color-matched mortars or grouts; pinning cracked units back together; patching spalled or missing portions with color-matched patching mortars; resetting loose units with new mortar; and replacing heavily damaged or missing units with new. There may also be associated repairs needed for embedded metals or flashings. When replacing with new, match existing masonry units in type, color, texture, size, shape, bonding pattern and compressive strength. If units are no longer manufactured or unavailable, try architectural salvage companies for sources. Also depending on the building, it may be possible to relocate original units from concealed/less visible areas for repairs at visible locations. Do not install modern brick for patching of historic masonry, even if they are "antiqued." They are typically much harder and do not match the historic masonry.

Masonry Units (Terra Cotta & Cast Stone)

What to Look For	*Recommended Action*
Cracked units Missing Units Spalling, chipped edges Flaking surfaces, loss of glaze Rust stains, cracking and spalling (from embedded metal) Hollow, unsound areas Poor previous repairs	Repair masonry units. Consult a professional for specific repairs or recommendations Repairs can include infilling cracks with color-matched mortars or grouts; pinning cracked units back together; patching spalled or missing portions with color-matched patching mortars; resetting loose units with new mortar; and replacing heavily damaged or missing units with new. There may also be associated repairs needed for embedded metals or flashings. When replacing, work with terra cotta or cast stone suppliers to mold existing units, and fabricate new to match.

Exterior Masonry

Masonry Units (Adobe)

What to Look For	*Recommended Action*
Cracking in walls Bulging or sagging Eroded or pitted surfaces "Coving" (deep erosion at the base of walls) Cracked, delaminated or missing render (stucco) Liquefied, non-cohesive units; mud flows Missing units Improper repairs	Damage may be caused by ground movement and differential settlement; poor drainage; erosion from water and wind;; roof leaks; poor design or construction techniques; and lack of maintenance. A common problem with adobe is also improper repairs using cement and concrete materials, such as cement stuccoes, concrete patches, and concrete wall bases (see "rising damp" below, under moisture problems section). Diagnosing the deterioration mechanisms and performing the proper repairs to adobe can be complex. It is highly recommended that you consult a professional. Typical repairs can include: Patching and replacing adobe brick; patching and replacing mud mortar; patching and replacing surface coatings (renders); removing incompatible materials and poor previous repairs; and associated work.

Exterior Masonry

Mortar

What to Look For	*Recommended Action*
Weathered, eroded and crumbly mortar Cracking in mortar joints Missing mortar Separation of mortar from masonry units Loose or missing masonry units Spalled surfaces and chipped edges of masonry units	Repair and maintain mortar joints through repointing Identify areas likely to have original or early mortars, in particular in protected/non-weathered locations, and match to that. When properly done, the new mortar should visually match the original in color, texture, joint size, and joint profile (tooling). Select a new mortar that is compatible with the surrounding masonry, particularly in terms of strength (see sidebar on page 77). For properties with a higher standard of care or special historic significance, we recommend matching the original mortar mix. This can be determined through laboratory analysis. Remove old mortar carefully with hand chisels or small pneumatic tools or grinders. Do not over-cut or widen existing joints, or chip masonry units.

Moisture Problems

What to Look For	*Recommended Action*
Leaks/Damp Damp/wet conditions; musty smells Stains, tide lines Spalling, crumbly masonry walls Blistering, crumbling and peeling interior finishes Salt deposits (efflorescence) Mold growth Biological growth/vegetation	Repair masonry units. Consult a professional for specific repairs or recommendations Repairs can include infilling cracks with color-matched mortars or grouts; pinning cracked units back together; patching spalled or missing portions with color-matched patching mortars; resetting loose units with new mortar; and replacing heavily damaged or missing units with new. There may also be associated repairs needed for embedded metals or flashings. When replacing, work with terra cotta or cast stone suppliers to mold existing units, and fabricate new to match.

Exterior Masonry

Moisture Problems (cont'd)

What to Look For	*Recommended Action*
Rising Damp (similar signs as above, but concentrated at base of walls)	Occurs when porous masonry materials draw up moisture from the ground into the walls. The moisture then evaporates, either to the inside or outside surface. May be exacerbated by improper materials or repairs. Common problem with adobe buildings that have a concrete base installed up against the adobe walls. Improve site drainage around base of walls by installing French drain or other drainage system improvements. Improve below-grade waterproofing (dampproofing). Maintain good ventilation to underfloor areas and crawlspaces. For mild problems, soft mortars and renders may be used for continual repairs. These are sacrificial treatments, designed to crumble away and be renewed. For consistent/reoccurring problems, it may be necessary to construct an impermeable barrier at the base of the wall, just above ground level, known as a damp-proof course. This is considered invasive; consult a professional.
Water ponding adjacent to foundation	Verify water existing from downspouts is directed away from the building. Provide splash blocks or extensions at the base of downspouts as needed. If a continual problem, re-grade area adjacent to foundation to direct surface water away from the building.
Damp walls; moss or algae on masonry surface; vegetation on or close to walls	Vegetation can trap moisture in masonry by blocking sunlight and ventilation. We recommend removing vegetation from masonry walls, and removing or thinning vegetation close to the building. Clean moss or algae growth from the wall surface with low pressure water, gentle detergents, and natural bristle brushes. Inspect irrigation systems, and re-direct sprinkler heads away from wall surfaces.

Exterior Masonry

Surface Conditions

What to Look For	*Recommended Action*
Surface soiling and staining	Clean masonry surfaces. Products and methods will vary depending on the material and condition; consult a professional. See the masonry and stucco cleaning guide on page 252 for more detailed information.
Efflorescence	Clean efflorescence from wall surface with low pressure water and a soft, natural bristle brush. A gentle detergent may also be added if needed. Review the area for possible sources of moisture, and correct/repair where possible to keep efflorescence from returning.
Painted masonry, evidenced by peeling, flaking, curling, or blistering Peeling, flaking, curling, or blistering Painted surface worn/weathered Chalky or dull finish	Maintain esisting paint coatings through proper surface preparation and repainting. For properties wtih a higher standard of care or special historic significance, we recommend matching the original finish. Determine through laboratory analysis if masonry has always been painted. If yes, match original color; if no, remove existing paint coatings. Avoid applying new paint to masonry that has never been painted.
Masonry sealers	Do not apply water-repellent and waterproof coatings (“sealers”). These coatings prevent moisture from evaporating from the masonry. Some are marketed as vapor permeable, or “breathable”, but may form shiny or dark films on the surface, and will still reduce natural evaporation. Once applied, they are nearly impossible to remove.

Exterior Masonry and Stucco

Masonry & Stucco Cleaning Guide

Cleaning can enhance the character and overall appearance of a building. However, improper cleaning can be very damaging.

- In general, the goal is to remove surface soiling or staining using the gentlest means possible, and without damage to the masonry.
- For best results, perform masonry repairs and repointing work prior to cleaning, to ensure building is water-tight.
- Select the appropriate cleaners for the type of masonry.
- Test cleaning products and methods first, in small inconspicuous areas.
- When using water cleaning, minimize water pressure to prevent surface damage (generally no more than 100 psi).
- When detergents are needed (for removal of stubborn or oily soiling), use a mild non-ionic detergent, such as a hand dishwashing detergent, diluted in water, and scrub with a natural bristle brush.
- Do not use abrasive blasting (sandblasting) or high pressurized water washing that can damage masonry surfaces.
- Do not use metal brushes or grinders that can damage masonry surfaces.
- Do not use harsh chemicals. Chemical cleaners can etch, stain, bleach or erode masonry surfaces.
- Consult a professional with specialized knowledge of historic masonry cleaning when gentler cleaning methods are not successful.

Stucco

Visually inspect your property often, and look for potential damage conditions, including the following:

Structural Problems

What to Look For	*Recommended Action*
Cracks in stucco wall Wide-width cracks, often through full stucco thickness; may be vertical, diagonal, or horizontal Web-like cracking patterns Hairline-width cracks, often through finish layer only.	Wider width cracks can indicate differential or uneven foundation settlement or structural problems. They may also be indicative of the need for expansion or control joints within the wall surface. Consult a professional, particularly if the condition worsens, or reoccurs after repair. Web-like cracking may be indicative of shrinkage upon curing, and tends to be less severe. Hairline cracks are minor, and can often be bridged with a new coat of elastomeric paint or thin slurry coat of the stucco repair material. Repair of wider cracks will typically include routing out or cuting out the damaged area, and patching with a compatible stucco mix.
Bowing or bulges in the wall plane	Bulging areas may be delaminating from the masonry substrate, or, in the case of wood lath, may have areas of detachment (broken plaster keys). Survey by gently tapping with a wooden or acrylic hammer or mallet to identify areas of detachment (will sound hollow). For most properties, detached areas may be cut out, and replaced with matching stucco. For properties with a higher standard of care or special historic significance, we recommend retaining as much original stucco as possible. Bulged areas can be carefully reattached to the wall through other means (adhesive injection, etc.) Consult a professional for recommendations.
Spalling and missing stucco	Remove loose material at spalled areas, and patch spalled or missing areas with new stucco to match. Where needed, cut and splice in new wire mesh reinforcement, or replace decayed wood lath.
Corroded mesh reinforcement, embedded metal, or accessories (corner beads, weep screeds, tie wires, etc.)	Remove stucco material to sufficient distance in order to replace the corroded mesh, metal or accessories; patch with new stucco to match.

Stucco

Surface Conditions

What to Look For	*Recommended Action*
Surface soiling and staining	Clean masonry surfaces. Products and methods will vary depending on the material and condition; consult a professional. See the masonry and stucco cleaning guide on page 252 for more detailed information.
Painted surfaces Peeling, flasking, curling, or blistering Painted surface worn/weathered	Maintain existing paint coatings through proper surface preparation and repainting. For properties with a higher standard of care or special historic significance, we recommend matching the original finish. Determine original paint color through laboratory analysis. When selecting paint, it is important that the new paint be compatible with earlier coats of paint and the stucco material; otherwise it may peel or trap moisture within the wall. Lime-based paint is preferred, if compatible, as it is more flexible and breathable than typical latex paint. Elastomeric paints also have some flexibility and crack-bridging properties, working well over stucco. Water-repellent coatings or sealers are not necessary.

Exterior Wood

Visually inspect your property often, and look for potential damage conditions, including the following:

Structural Problems

What to Look For	*Recommended Action*
Exterior walls not plumb or vertically straight; bulging Large deflections or sagging, particularly in roof lines Windows and doors do not fit or operate properly; frames are out-of-square or racked Siding has wavy surface	These conditions can indicate uneven or differential settlement or structural problems. They can also be the result of inadequate strength/over-loading, poor design, lack of bracing, later modifications, or material defects. Consult a professional, particularly if the condition worsens.
Intermediate to advanced wood rot Losses to the cross section of structural members. Crushing failure under loading conditions.	Consult a professional, particularly if the condition worsens. May need to install temporary shoring or other bracing to prevent failure or collapse.

Wood Siding and Decorative Trim

What to Look For	*Recommended Action*
Loose, cracked, missing, or open joints Open joints around window and door frames Open joints between dissimilar materials (ex. wood and metal) Splits or checking in wood membs	Open joints in and around wood materials leave avenues for water to penetrate, and wood rot to develop. For localized areas, patch with exterior wood fillers or wood-compatible epoxy putties; and wood splices or dutchmen. Refasten loose elements together with careful nailing or fastening. Re-caulk perimeter joints around windows or doors. Repair or replace deteriorated flashings. For areas that cannot be repaired, replace in-kind. Match the historic wood in size, profile and visual characteristics. For siding, match the original pattern, exposure and alignment relative to the building. For replacement wood, select appropriate wood species for use and location. Consider using decay-resistant or treated wood. When replacing wood with stained or clear finishes, match existing wood species and grain as closely as possible.

Exterior Wood

Moisture Problems

What to Look For	*Recommended Action*
Leaks/damp Damp/wet conditions; musty smells Stains, tide lines Mold growth Biological growth/vegetation	Damage resulting from a failure of other building elements, such as roofing and drainage, plumbing, etc. Typically caused by aging materials, improper repairs, and a lack of maintenance. Investigate the source of the leak or damage, and correct those conditions during wood repair.
Surface/ground water Water ponding adjacent to foundation Wood materials on or within 6-inches of the ground Wood materials on masonry foundations or piers	Wood materials near the ground are more susceptible to decay from moisture. Correct construction if possible to provide a buffer between wood materials and the ground, and between wood materials and foundations. Verify water exiting from downspouts is directed away from the building. Provide splash blocks or extensions at the base of downspouts as needed. If a continual problem, re-grade area adjacent to foundation to direct surface water away from the building.
Damp walls; moss or algae on masonry surface; vegatation on or close to walls	Vegetation can trap moisture in wood by blocking sunlight and ventilation. Remove vegetation from wood walls, and remove or thin vegetation close to the building. Clean moss or algae growth from the wall surface with low pressure water, gentle detergents, and natural bristle brushes. Inspect irrigation systems, and re-direct sprinkler heads away from wall surfaces.

Exterior Wood

Wood Decay/Rot

What to Look For	*Recommended Action*
Staining and discoloration	Inspect wood decay-prone areas regularly, such as wood near foundations and base of walls; window sills and lower rails; door thresholds; sill beams and wall plates; cornices and trim; porches; crawlspaces; and interfaces of wood with masonry or other materials.
Surfaces are soft with raised wood grain	Keep wood materials dry; see "Moisture Problems" actions.
Mold and mildew smells	Apply borate-based wood preservatives to protect against decay.
Voids along the grain structure	Apply water repellents with mildewcide additives that will kill active fungi and protect from future growth.
Wood is soft or "punky"; can be easily probled with metal tools	Maintain protective paint coatings (see "Surface Conditions" actions).

Insect Damage

What to Look For	*Recommended Action*
Mud tubes on surfaces of wood or masonry	Inspect insect target zones regularly, in particular wood materials on or within 6-inches of the ground; wood materials on masonry foundations; and wood within crawl spaces.
Entry/exit/flight holes and tunnels	Engage a pest management company to provide regular inspections and treatment.
Frass (loose wood dust byproduct from tunneling)	Treat with borate-based wood preservatives to protect against insect attack.
Insects or larvae	Correct construction detailing where possible to provide a buffer between wood materials and the ground, and between wood materials and foundations (ex. termite shields).

Exterior Wood

Surface Conditions

What to Look For	*Recommended Action*
Painting Peeling, flaking, curling, wrinkling, or blistering Cracking, crazing, or alligatoring Painted surface worn/weathered, with bare wood showing Soiled, chalky, or dull finish	Surface cleaning may be all that is needed, depending on condition. Wash with a mild detergent solution and natural bristle brushes. Investigate the source of damage, and correct those conditions prior to repainting. Maintain existing paint coatings through proper surface preparation and repainting. . In general, wood needs repainting every 5 to 8 years. Prepare surfaces by cleaning, scraping and sanding to remove loose soiling and paint not adhered to the wood. Putty or caulk over countersunk nails, gaps and joints. Spot prime areas of bare wood. Apply a high quality, exterior grade paint, that is appropriate to the substrate. It is best to use a primer and paint that are compatible and from the same manufacturer. For bare wood, primer and two coats of finish paint are recommended. For properties with a higher standard of care or special historic significance, we recommend matching the original finish. Determine original paint color through laboratory analysis.

Non-Original Materials

What to Look For	*Recommended Action*
Original siding has been covered with vinyl, steel, or aluminum siding	Siding installed over original wood siding can trap moisture within the wall system, and conceals any damage or wood rot from view. Remove non-original siding so that the underlying materials can be inspected and repaired. Repair work may include restoration of details or trim that were damaged or removed during non-original siding installation. Do not install incompatible or artificial siding.

Roofing

Visually inspect your property often, and look for potential damage conditions, including the following:

Structural Problems

What to Look For	*Recommended Action*
Large deflections or sagging in roof lines	These can indicate indicate uneven or differential settlement or significant structural problems. Consult a professional, particularly if the condition worsens.

Terra Cotta & Concrete Tile

Useful service life: 100+ years with proper maintenance and repairs; underlayments however have useful service life of 20+ years.

What to Look For	*Recommended Action*
Broken or missing tiles Tile units delaminating or flaking apart Tile particles seen in valleys and gutters Soiling; debris; vegetation	Re-attach/ re-secure loose tile. Replace missing tile in kind. Replace individual broken or deteriorated tile in kind. Consider roof replacement when over 20% of units are cracked, missing or delaminated. Remove debris regularly; clean tile surfaces as required. Trim back overhanging tree limbs. Inspect regularly for damage, and repair as needed.
Water leaks Dark stains (water stains) and wood rot at underside of roof (visible in attic spaces) Mildew on underside; dampness in attic space	May indicate that tile underlayments (waterproofing) is damaged or deteriorated. Remove tile from problem area to investigate, and repair as required; reinstall tile. For significant damage, re-roofing is recommended. Tile may be salvaged and reinstalled. Replace underlayment, and repair or replace any damaged roof deck or sheathing as required. Verify whether attic spaces are sufficiently ventilated.

Roofing

Wood Shakes & Shingles

Useful service life: 50+ years with proper maintenance and repairs

What to Look For	*Recommended Action*
Loose or slipped shingles; missing shingles	Re-attach/ re-secure loose shingles.
Split shingles	Replace individual damaged or missing shingles in kind.
Surface erosion/wear; appear thin	Consider roof replacement when over 20% of shingles are damaged or missing.
Moss or mold on roof surface	Clean biological growth and treat to inhibit future growth.
	Trim back overhanging tree limbs.
	Inspect regularly for damage, and repair as needed.

Asphalt & Composition Shingles

Useful service life: 20+ years with proper maintenance and repairs

What to Look For	*Recommended Action*
Loose or slipped shingles; missing shingles	Re-attach/ re-secure loose or slipped shingles.
Dents and surface damage (hail damage)	Replace individual damaged or missing shingles in kind.
Cracked shingles	Consider roof replacement when over 20% of shingles are split, cracked, missing or deteriorated.
Surface erosion/wear; appear thin	During repair or re-roof, inspect roof deck/substrate for damage and repair as required.
Mineral granules seen in valleys and gutters	Clean biological growth and treat to inhibit future growth.
Moss or mold on roof surface	Trim back overhanging tree limbs.
	Inspect regularly for damage, and repair as needed.

Roofing

Membrane Roofs (Flat Roofs)

Useful service life: 20+ years with proper maintenance and repairs

What to Look For	*Recommended Action*
Bubbles, blisters, and wrinkles	Patch localized areas of damage using compatible methods (varies by roof system type)
Cracking and separations	Consider roof overlay or roof replacement when over 20% of roof area is deteriorated or roof is beyond useful service life.
Loose/detached membrane sheets	During repair or re-roof, inspect roof deck/substrate for damage and repair as required.
Roof feels loose or spongy under foot	Remove debris regularly; clean roof surfaces as required.
Water ponding on roof	Trim back overhanging tree limbs.
Mineral granules or gravel worn away; seen at drains and low areas	Inspect regularly for damage, and repair as needed.
Membrane or reflective paint eroded	
Soiling; debris	

Metal Roofs

Useful service life: 50+ years with proper maintenance and repairs

What to Look For	*Recommended Action*
Substantial number of rust or corrosion spots	Patch or re-solder localized areas of damage using compatible methods (varies by roof system type)
Previous tar patch repairs	Consider roof overlay or roof replacement when over 20% of roof area is deteriorated or roof is beyond useful service life.
Punctures or pinholes in the metal	Re-paint tin and terne-coated steel every 5-10 years.
Broken seams or joints	During repair or re-roof, inspect roof deck/substrate for damage and repair as required.
Weathered or peeling paint	Remove debris regularly; clean roof surfaces as required.
For flat metal roofs, bounce under foot; water ponding	Trim back overhanging tree limbs.
Soiling; debris	Inspect regularly for damage, and repair as needed.

Roofing

Chimneys

What to Look For	*Recommended Action*
Chimney is leaning.	May indicate a structural problem or earthquake damage (if unreinforced or not braced. Consult a professional, particularly if the condition worsens.
Chimney is not properly lined Flue is blocked, clogged, or heavily soiled	Install a chimney liner if wood-burning fireplaces are used, or if masonry inside of flue is crumbling. Remove collected ash regularly; ensure smoke damper operates. Engage chimney sweep to clean flue after periods of heavy use or long periods of inactivity prior to use.
Chimney is not properly capped	Install an appropriate chimney cap for the building style.
Masonry or stucco is cracked or crumbling	See “Exterior Masonry Inspection Checklist” and “Stucco Inspection Checklist”
Mortar joints in chimney are cracked or eroded	See “Exterior Masonry Inspection Checklist”

Flashings

What to Look For	*Recommended Action*
Loose or missing flashing Broken welds or seams Un-caulked openings or gaps Substantial number of rust or corrosion spots Previous tar patch repairs Punctures or pinholes in the metal	Patch or re-solder localized areas of damage using compatible methods (varies by metal type) Replace flashing where missing or heavily damaged. Inspect regularly with roof, and repair as needed.

Roofing

Drains, Gutters, & Downspouts

What to Look For	*Recommended Action*
Clogged with debris	Remove debris and clean/flush for proper drainage. Recommend cleaning 2x/year (spring and fall), or more frequently if needed. Provide strainers at area drains (flat roofs); mesh screens at gutters. Trim back overhanging tree limbs. Inspect regularly with roof, and repair as needed. Also, inspect during heavy rainstorm to identify potential problem areas.
Loose, askew, disconnected, or missing components Dents or crushed components Open seams; broken welds Rust or corrosion Peeling paint; paint loss	Re-solder open joints and broken seams; reconnect sections where loose Replace damaged or missing components in kind. Clean and prepare metal surfaces, and repaint.
Water ponding adjacent to foundation	Verify water exiting downspouts is directed away from building foundation. If necessary, re-grade around foundation for proper drainage. Provide splash blocks or downspout extensions if needed.
Where no gutters or downspouts exist: Wood decay/ damage and ponding water at foundation related to surface drainage/ water dripping from roof	Inspect during heavy rainstorm to identify potential problem areas. Consider installing new gutters and downspouts appropriate for the building style.

Roof Appurtenances

What to Look For	*Recommended Action*
Broken welds or seams; open joints around penetrations Cracked or deteriorated tar around penetrations Equipment unsupported; improperly supported; damaging to roof	Patch or re-solder localized areas of damage using compatible methods (varies) Replace if damage is substantial Remove and patch roof if abandoned. Take corrective action as needed to ensure all equipment is properly supported and attached to structure, without damage to roof. Consult a professional.

Windows & Doors

Windows & Doors Inspection Checklists forthcoming.

Metalwork

Metalwork Inspection Checklists forthcoming.

Appendix D

City of Redlands List of Historic Resources