DESIGN GUIDELINES
FOR HISTORIC DISTRICTS IN THE
CITY OF PASADENA, CALIFORNIA

WITH THE SECRETARY OF THE INTERIOR’S STANDARDS
FOR HISTORIC PRESERVATION

APRIL 2002
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Section I

Introduction

This section presents the following topics:

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CHAPTER 1

PURPOSE OF DESIGN GUIDELINES

This document provides guidance for improvements to historic properties and work within both locally designated Landmark Districts and National Register Historic Districts in Pasadena, California. The guidelines are for property owners planning exterior alterations, additions or the rehabilitation of existing buildings. They also apply to the design of new buildings within the City’s historic districts. The guidelines will be used by Pasadena’s Historic Preservation Commission (HPC) and the staff of the Design and Historic Preservation section of the Planning and Development division of the City of Pasadena when making decisions about granting approval for a Certificate of Appropriateness. The City requires a Certificate of Appropriateness for major exterior alterations to designated historic resources.

These guidelines also will assist property owners in understanding the historic character of the buildings and environment in which they live, and to help owners when they are faced with decisions about repair, maintenance, rehabilitation and new construction. In this respect, their purpose is to provide information to property owners and tenants about the distinctive characteristics of their buildings and ways to maintain them.

While the design guidelines are written such that they can be used by the layman to plan improvements, property owners are strongly encouraged to enlist the assistance of qualified design and planning professionals, including architects and preservation consultants.

POLICY BASE FOR DESIGN GUIDELINES

The design guidelines presented in this document convey community policies about the design of alterations to existing structures, additions, new buildings and site work. As such, they provide a common basis for making decisions about changes that may affect the appearance of individual properties or the overall character of a district. However, they do not dictate solutions. Instead, the guidelines define a range of appropriate responses to a variety of specific design issues.

In the City of Pasadena Comprehensive General Plan the preservation of the city’s historic resources is listed as a major objective. One of the General Plan’s Seven Guiding Principles states, “Change will be harmonized to preserve Pasadena’s historic character and environment. City-wide design principles will be established so that new development blends with the old; historically and architecturally significant buildings will be preserved; new public spaces will be acquired; and we will act as stewards of our natural environment” (City of Pasadena Comprehensive General Plan, page 1).

“The principle of harmonizing change and preserving the existing environment is of tremendous importance to Pasadena residents. Harmonizing change requires that new development and other physical alterations respect the existing character and scale of the city. Change and development must be accomplished in a fashion that enhances and blends with Pasadena’s existing qualities, both
physical and social. Regardless of style, new development should be carefully and sensitively designed” (City of Pasadena Comprehensive General Plan, page 14). The following objectives and policies relate to how the City of Pasadena intends on meeting this vision:

- **Objective 5**: Preservation of Pasadena’s character and scale, including its traditional urban design form and historic character, shall be given highest priority in the consideration of future development.
  - **Policy 5.2**: Adopt urban design guidelines for each targeted development area and each identifiable design district in Pasadena.
  - **Policy 5.4**: Urban design programs, including principles and guidelines, shall recognize, maintain and enhance the character and identity of existing residential and commercial neighborhoods.
  - **Policy 5.5**: The City shall actively promote architectural and design excellence in buildings, open space and urban design and shall discourage poor quality development.
  - **Policy 5.8**: Encourage creative responses and solutions at many scales and levels of development on the part of the various peoples and cultures involved in designed and creating places.

- **Objective 6**: Promote preservation of historically and architecturally significant buildings and revitalization of traditional neighborhoods and commercial areas.
  - **Policy 6.2**: Adopt new legislation to protect historic and cultural resources according to levels of significance and include provisions to deter the demolition of historically, architecturally and culturally significant structures.

- **Objective 7**: Preserve the character and scale of Pasadena’s established residential neighborhoods.
  - **Policy 7.1**: Ensure that all new development in residential neighborhoods discourages mansionization.

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**The Secretary of the Interior’s Standards for the Rehabilitation of Historic Buildings**

The U.S. Secretary of the Interior publishes a set of standards for the rehabilitation of historic structures that forms the basis for many local preservation programs. The City of Pasadena has adopted *The Secretary of the Interior’s Standards for the Rehabilitation of Historic Buildings* as a basis for its guidelines. The Secretary’s Standards appear in Appendix G.
Before going ahead with a project, it is always best to check with the City of Pasadena to see if approval is necessary. The HPC relies upon the design guidelines when it reviews projects for “appropriateness.” These guidelines apply in addition to provisions in the zoning ordinance and building codes.

WHY PRESERVE HISTORIC RESOURCES?

Across the nation, thousands of communities promote historic preservation because doing so contributes to neighborhood livability and quality of life, minimizes negative impacts on the environment and yields economic rewards. These same reasons apply in Pasadena.

Because Pasadena is rich in cultural resources and offers an outstanding quality of life, it continues to attract development that challenges the community to seek creative ways of protecting its character. Preserving historic resources is a part of an overall strategy of maintaining community identity and livability. A key goal is that, as Pasadena continues to change, it will maintain its ties to the past through the preservation of its architectural heritage reflected in its historic resources.

Preservation of the built environment provides a fundamental link to the past. Many of the buildings tell the story of Pasadena’s unique historical development. Keeping these resources creates a sense of place for those who live here and provides visitors a connection with this unique heritage.
Construction quality
Many of the historic structures in the city were constructed with high quality materials and craftsmanship. Other buildings were more modest, but even so may have used lumber from mature trees that were properly seasoned and typically milled to full dimension, which often yields stronger framing. Masonry walls were carefully laid, resulting in buildings with considerable stability. Also, these structures were thoughtfully detailed and the finishes of materials, including fixtures, wood floors and trim, were generally of high quality—all features that owners today appreciate and value.

Adaptability
Owners frequently find that the floor plans of historic buildings easily accommodate modern lifestyles and support a diversity of populations. Many rooms are large, permitting a variety of uses while retaining the overall historic character of the structure. Even historic buildings that are smaller in scale often are on sites that can accommodate additions, if needed.

Livability and quality of life
When older buildings occur in groups, they create a street scene that is "pedestrian friendly," and encourages walking and neighborly interaction. Mature trees and decorative architectural features also contribute to a sense of identity that is not found in newer areas. These historic buildings therefore help create desirable places to live and work.

Environmental benefits
Preserving an historic structure is also a sound environmental conservation policy because "recycling" saves energy and reduces the need for producing new construction materials. Three types of energy savings occur:

• First, energy is not consumed to demolish a building and dispose of the resulting debris.
• Second, energy is not used to create new building materials, transport them and assemble them on site.
• Finally, the "embodied" energy which was used to create the original building and its components, is preserved.

By "reusing" older buildings, pressure is also reduced to harvest new lumber and other materials that may have negative effects on the environment of other locales where these materials are produced.

Economic benefits
Nationwide studies prove that preservation projects also contribute more to the local economy than do new building programs because each dollar spent on a preservation project has a higher percentage devoted to labor and to the purchase of materials available locally. By contrast, new construction typically has a higher percentage of each dollar spent devoted to materials that are produced outside of the local economy and to special construction skills that may be imported. Therefore, when money is spent on rehabilitating a building, it has a higher "multiplier effect," keeping more money circulating in the community. Rehabilitation therefore, provides more jobs for Pasadena area residents.

Responsibility of ownership
Ownership of an historic property carries both the benefits described above and a responsibility to respect the historic character of the resource and its setting. While this responsibility does exist, it does not automatically translate into higher construction or maintenance costs. Ultimately, residents and property owners should recognize that historic preservation is a long-range community policy that promotes economic well-being and overall viability of the city at large play a vital role in helping to implement that policy through careful stewardship of the area's historic resources.
HISTORIC OVERVIEW OF THE CITY OF PASADENA

For a detailed historic overview for the City of Pasadena see the Architectural/Historical Development of the City of Pasadena: Historic Context/Property Type Report in Appendix I. This report was prepared by Pamela O’Connor and the Urban Conservation Section in the Planning Division of the City of Pasadena.

The following resources can also be used if more information is needed.


PASADENA HISTORIC DISTRICTS

Chapter 2.75 of the Pasadena Municipal Code provides for the protection of locally designated Landmarks or Landmark Districts through a design review process. The City also recognizes that properties listed as National Register Historic Districts are significant historic resources to the city and they should receive protection under the local ordinance.

However, it is important to distinguish the City’s designation of Landmarks and Landmark Districts through its local ordinance process from designation to the National Register of Historic Places. The National Register is a list of sites and properties of historic significance. Properties so listed may have national significance, but they may also be listed if they are determined to have significance at a state or local level. The National Register is administered by the National Park Service and nominations are submitted through the State of California Office of Historic Preservation, using criteria adopted by the Secretary of the Interior. Properties listed in the National Register are only protected from federally-funded projects which might harm or alter an historic resource. Such federal projects must be reviewed for their potential impact. Otherwise, alterations are not reviewed unless the historic resource is protected under a local ordinance.

By contrast, the local designation process is established through provisions in the Municipal Code of Pasadena. Criteria for designation are set forth in the code and designated properties are subject to protections also outlined in the ordinance. Currently, the City of Pasadena has two locally designated residential historic districts: Bungalow Heaven Historic District and Garfield Heights Historic District.
While all of the design guidelines in chapters 5 through 11 apply to all historic districts—both locally designated and those listed in the National Register—each neighborhood also has its own chapter that presents a brief history of development, a summary of the design characteristics and the neighborhood’s design goals (as identified by neighborhood residents).

**Using Architectural Styles & Types Descriptions**

Throughout the guidelines, owners are encouraged to “preserve key character-defining features.” The lists of characteristics for residential building styles and types found in Pasadena's historic districts—presented on the following pages—should be used to identify those features that should be preserved.

**Victorian Period**

circa 1840-1900

**Queen Anne Style**
- Irregular plan, asymmetrical massing
- One or two stories
- Projecting bay windows, towers, turrets, oriel, dormers, camphored corners
- Full front, wrap-around porch
- Tall, narrow double hung 2/2 or 1/1 windows (sometimes paired) and accent windows with leaded or stained glass (usually at staircase)
- Tall brick chimneys (modestly or elaborately ornate)
- Multi-gable roof with predominately front gable
- Shingles used as embellishment, especially in gable ends and dormer walls.
- Ornamental woodwork, especially on gables and porches
- Combinations of siding materials, e.g., horizontal siding on the first story and shingles on the second
- Double-hung wood sash windows in tall narrow openings

Irregular, asymmetrical massing typifies the Queen Anne style.
TURN-OF-THE-CENTURY PERIOD  
circa 1890-1910

Massed Plan Vernacular Type
- One story with a rectangular floor plan (short side orientation on street) and symmetrical massing (except on corner porch model)
- Hipped roof with modest eave extension and centered front dormer (sometimes with side dormers)
- One-over-one double hung windows (paired on front elevation) or wide transom windows (on front)
- Porch that spans the facade or cuts into a corner (usually recessed under the roof)
- Bay windows located on the front or side elevations
- Narrow clapboard siding

At the turn of the century, a very popular house was the Massed Plan Vernacular type.
Shingle Style

- Irregular, complex form with wood (shingles) sheathing that wraps the building
- Complex, but flowing roof with multiple gables, combination hip/gable, dormers, eyebrow dormers, conical tower roof and minimal eave extension; also gambrel roof (adapted from New England Colonial)
- Curved surfaces and shapes (curved bays, eyebrow dormers, wide-arched porch openings, Palladian windows)
- Horizontal emphasis
- Multiple-pane windows (casement or double-hung)
- Prominent recessed front porch over 1/2 of the front elevation typical with the other 1/2 front elevation dominated by a curved or otherwise distinguished bay

American Foursquare Type

- Two-story, symmetrically massed, square plan (or nearly square)
- Low-pitched hip roof with moderate eave extension, usually with exposed rafter tails, and centered dormer
- Wide, one-over-one, double-hung windows with one-light, fixed windows with transoms on either side of a centered entry on the front elevation
- Symmetrical front elevation
- Prominent header and sills; molded surround or header molding
- Full, open front porch (sometimes wraps corner) with classical columns, entablature, wood balustrade and details such as dentils, enframed pediment
- Wood clapboard or stucco exterior walls
- Concrete or brick foundation and side wall chimney
- Classical detailing such as roofline entablatures, dentils, Palladian window

Shingle style houses are typically “high fashion,” as exhibited in existing dwellings that are large and varied in design.

The American Foursquare—with its two-story, symmetrically massed, square plan and low-pitched hip roof—was very popular throughout the country.
COLONIAL REVIVAL PERIOD

circa 1890-1930

Colonial Revival Style (turn-of-the-century)

- Rectangular plan, symmetrical “I” plan or asymmetrical with “L” wing to front
- Two stories
- Gable or cross-gable roof
- Full facade front porch or porch tucked into front wing “L” with wood post supports (sometimes turned), turned spindle or slat balustrade and classical detailing
- Horizontal wood siding (clapboard or weatherboard); shingled gable wall; corner boards; flat board window and door surrounds (sometimes with molded header)
- Paneled door with decorative glass light (sometimes with transom and/or sidelights)
- Double-hung windows in tall, narrow openings, sometimes in pairs (usually 1/1)

The Colonial Revival style encompasses many variants of residential architecture.
During the teens of the 20th century in Pasadena, many houses were designed and constructed that exhibit a fairly strict interpretation of Georgian and Federal styles of the 18th century.

Neoclassical Style
- Symmetrical or asymmetrical front elevation with emphasis on classical element or elements
- Prominent front porch with combinations of classical detailing (classical columns, pediment over entry bay with relief design is typical)
- Palladian window (usually on front elevation)
- Narrow, clapboard or stucco siding
- Double-hung windows, 1/1, multi-pane/1, multi-pane/multi-pane, leaded glass in upper sash or transom

Georgian Revival Style
- Two stories, five to seven bays, symmetrical massing
- Rectangular plan with side gable roof, moderate eave extension with open (exposed rafters) or boxed eaves
- Clapboard or smooth stucco exterior siding.
- Symmetrical fenestration With two to three bays on either side of entry
- Centered entry with classical portico; typically paneled door with side-lights and transom
- One story side addition as sunroom or porte-cochere; or, porte-cochere with sunroom on second story
- Multi-pane double hung windows, usually with shutters
- Roof-line entablature, molding and/or dentils

The presence of bay, paired, arched or transom windows distinguishes the Neoclassical style from Greek Revival or early Classical Revival styles.
Colonial Revival Cottage Style (1920s)

- One story, with rectangular, “L,” or “U” plan
- Side gable, clipped gable or gambrel roofs usually punctuated by dormer windows or vents, commonly either gabled or eyebrow in form
- Boxed eaves
- Symmetrical, three bay facades, usually with a central, front gabled, portico-like entry and tripartite window openings in the side bays
- Wood horizontal siding
- Incorporation of elements derived from the American Colonial era, such as Tuscan columns, dentils or entries with side lights and lunettes or transoms
- Multi-light windows, either double hung sash or casement
- Combinations of Colonial and Craftsman features such as pergolas extended from the portico over half or all of the front porch

The Colonial Revival Cottage style is typified by the symmetrical, three bay facades, usually with a central, front gabled, portico-like entry and tripartite window openings in the side bays.
City of Pasadena

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Arts and Crafts Period

Circa 1900-1925

California Bungalow Style (1 story, 1 1/2 story and airplane bungalow)

- Low to moderate pitched, front gable roof, often multiple gables, (1 story or airplane form) or moderate to high pitched side gable roof with prominent front dormer(s) (1 1/2 story), with extended eaves and exposed rafters and beams; knee brace supports are typical
- Vents at top of gables with lattice work, vertical slat or saw-cut ornament (sometimes entire gable is vented)
- Asymmetrical or symmetrical massing and composition
- Exterior cladding of wood shingles or clapboard, traditionally painted or stained (sometimes flared at the foundation and in courses of alternating wide and narrow)
- Brick, stucco or arroyo stone for porch piers, porch walls, foundations and chimneys
- Porch with front gable roof (1 story and airplane form) spanning all or part of the facade and occasionally wrapping a corner, or porch recessed under primary roof (1 1/2 story)
- Porch piers (full height or 1/2) that may taper towards the top (wood posts either on top of 1/2 piers or full height are also common)
- Bands of double hung or casement windows in groups of three or four (upper portion of windows may have ornamental muntin pattern)
- Wide, front door with Craftsman detailing (sometimes with art glass panel)
- Strong horizontal lines emphasized by the roof design, massing and details such as continuous moldings or extended headers
- Incorporation of details of craftsmanship such as stained glass windows, metal art glass light fixtures and hand-finished wood
- Porte cocheres and pergolas
- Driveway as principal approach to house, often with no separate walkway
Chalet Style

- Wide, predominately flat, two-story (symmetrical or asymmetrical) front elevation
- Wide, front gable roof with extended eaves, exposed rafters
- Wood shingle siding (sometimes combined with clapboard or stucco)
- De-emphasized main entry with cut-out porch or entry, or 1-story front porch as a secondary element with a front gable roof or with flat roof with porch roof deck
- Second story balcony with flat board (plain or cut-out pattern) rails
- Multi-light casement windows (sometimes with diamond pattern), or wide-fixed front window(s), with or without transom, and sidelights and double-hung windows (often with patterned upper sash) on other elevations
- Wide, wood belt course separating first and second stories
- Ornamentation that typically includes vented gable, shutters, half timbering, small balcony with wood railing

The Chalet Bungalow is predominately a two story dwelling that incorporates a second story balcony with flat board (plain or cut-out pattern) rails.
English Arts and Crafts Style
- Asymmetrical design with irregular massing and plan, usually two stories in height
- Steeply pitched roof with little or no overhang (sometimes with shingles and shape of roof mimicking a thatched roof)
- Facade dominated by one or more prominent cross-gables, usually steeply pitched
- Stucco or brick exterior often with half timber veneer especially on gable walls
- Tall, narrow, multi-pane casement windows, often varying sizes and/or grouped in various configurations (leaded glass is common)
- Prominent chimney or chimneys, usually with decorative pattern brickwork and chimney pots
- Exterior wall material variation, usually brick or stucco or a combination of the two
- Garden setting with curved paths, patios and terraces

A steeply pitched roof with little or no overhang that mimicked a thatched roof is a very common characteristic of the English Arts and Crafts style.
Prairie Style
- Predominately symmetrical plan and massing
- One or two stories
- Low pitched truncated hip roof with tile and extended boxed eaves or flat roof with parapet (usually with tiled visor roof)
- Stucco exterior walls (smooth or sand finish)
- Fixed window with decorative transom and sidelights, bands of windows (usually casement) are typical; art glass or other ornamental glass in accent windows
- Wide front door, usually with decorative glass panel or panels
- Front porch spanning most of front with flat roof and large, plain support piers
- Porte cocheres and sun room additions on side elevations

Mission Bungalow/House Style
- Rectangular plan or “U” plan around a courtyard
- 1 1/2 story with side gable roof with open, extended eaves, 2 story with hip roof or flat roof with parapet and tiled visor roof
- Mission-shaped gable at roofline, at entry or as prominent dormer
- Symmetrical or asymmetrical in massing and fenestration
- Recessed arched openings
- Stucco exterior walls (smooth or sand finish)
- Exposed heavy wood rafters, outriggers, columns or other structural wood elements
- Prominent one-story front porch with wide support columns (sometimes arched openings)
20TH CENTURY REVIVAL PERIOD
circa 1920-1940

Tudor/English Cottage Revival Style
- Asymmetrical with irregular plan and massing
- Steeply pitched roof with little or no eave extension, sometimes with rolled edges on roofing to imitate thatch
- Gable or cross-gable roof
- Stucco walls, sometimes with brick or wood accents
- Decorative half-timbering (Tudor)
- Decorative masonry on exterior walls or gables, primarily brick
- Recessed entry, usually under a primary front facing gable but sometimes under small gable-roof portico
- Groupings of tall, narrow casement windows, often with leaded, diamond panes
Spanische Colonial Revival/Spanische Eclectic Style
- Ein oder zwei Stockwerke mit rechteckigem, "U" oder irregulärem Grundrisse und symmetrischen oder asymmetrischen Massivbauweise
- Niederfallende Satteldach- oder Satteldachdachdach mit Spanische Ziegeldach (wenig oder kein Auffahrt) oder flachem Dach mit Dachkranz meist mit Ziegelsims
- Flachenaufmauerung mit glattem oder strukturiertem Finish
- Auffahrt, stützt sich auf große, quadratische Pfeiler oder einfache Ziegeldachdach über der Tür
- Die Fenster und Türen (oft innerhalb eingezogener Öffnungen), meist mit einem prominenten dekorativen Fenster häufig in einer Giebelwand, manchmal mit Holz oder geformtem Eisen grill oder klassischen Ornamentation)
- Holz-Fensterenteilungen in Gruppen
- Klassische Ornamente um den Eingang
- Vordere und/oder innere Patios, oft umgeben von Ziegelemauerung
- Dekorative Details, die mögen Quatrefoil-Window, Vigas, schweren Holzstrukturalementen, und beschränkten Ecken

Pueblo Revival Style
- Ein oder zwei Geschosse mit symmetrischen oder asymmetrischen Grundrisse
- Flachenaufmauerung mit Dachkranz, gestufte Rücken Linie meist auf zwei Geschosseform
- Gerundete Flachenaufmauerung mit Ecken
- Benutzung von handgearbeiteten Holzmitgliedern wie Vigas, Lintels and porch supports
- Doppelte oder Casement, multi-light Fenster innerhalb eingezogener Öffnungen and/or Öffnungen mit gerundeten Ecken
- Batterte Wände
- Auffahrt, die auf Pfeilern oder anderem handgearbeitetem Ornament

Rather than copy the Eastern state’s revival architecture of its own colonial past, California turned to its Hispanic and Indian heritage for inspiration of the Spanish Colonial style.

The Pueblo Revival Style has a flat roof and smooth stucco exterior walls with edges that are typically rounded.
Italian/Mediterranean Renaissance Revival Style
- Symmetrical or asymmetrical with rectangular, U, or L plan
- Two stories with a shallow hip or truncated hip roof of tile
- Smooth, modulated or textured stucco walls
- Prominent, usually projecting entry bay with column or pilaster surrounds and distinctive classical detailing
- Recessed, heavy front door with heavy hardware
- Arched openings at porte cochere, side wings, loggias
- Recessed windows that are small in relation to wall surface (often with heavy shutters)
- Heavy stucco chimneys (plain, hooded or with chimney pots)
- Use of quoins and other classical detailing

California Monterrey Colonial Revival Style
- Two-story, rectangular or “L” plan
- Low-pitched gable roof with wood shake shingles (sometimes tile)
- Second story, cantilevered balcony across all or most of front elevation covered by primary roof
- Stucco exterior walls (smooth texture on flat or modulating surface)
- Paired multi-pane casement windows and French doors (some openings with shutters)
- Wood columns, brackets and braces and exposed beams with Spanish details
- Entry door (often recessed) with Colonial Revival detailing

Houses of this style blend design and construction characteristics of the Spanish adobe with architectural elements derived from New England Colonial Revival houses.
Mid-Twentieth Century
Modern Period
circa 1930-1950

Modern Colonial Style
- Primarily one story with rectangular or “L” plan and irregular arrangement of elements
- Shallow-pitch hip roof with slight overhanging, boxed eaves (usually with arched vent)
- Stucco exterior walls (smooth or sand finish) with areas (under windows, around front entry) emphasized with brick, shingles or clapboard
- Wood multi-pane double hung or wood or metal casement windows with four panes divided by horizontal muntins (sometimes in a grouping with a fixed window) and corner windows are typical
- Minimalized classical detailing around front entry
- Small entrance porch (recessed corner or centered portico) usually with wrought iron supports and/or rails

Modern 2-Story Classic Style
- Symmetrical, 2-story with rectangular plan
- Shallow-pitch end gable roof
- Five to seven bays with large multi-light double hung windows on either side of centered front entry (typically all openings have inoperable shutters)
- Classical detailing (historic replica or streamlined) around entry with paneled door
- Two-story full front portico usually with plain wood post supports (wrought iron details may be incorporated into design)
- Stucco (smooth or sand finish), brick or clapboard exterior walls
- Gable end fireplace/chimney, usually of brick
- Georgian or Federal references in minimized ornamentation

The Modern Colonial style is primarily one story with shallow-pitch hip roof and slight overhanging, boxed eaves.

The Modern 2-Story Classic Style typically has five to seven bays and a two-story full front portico usually with plain wood post supports.
California Ranch Style

- One-story asymmetrical plan and massing
- Flat or slightly pitched hip roof
- Stucco, wide horizontal wood siding exterior walls (or combination of)
- Prominent, attached garages (usually 2-car) in line with front elevation or as a front “L”
- Entry portico with decorative iron or wooden porch supports
- Large plate glass windows or horizontal windows at top of wall
- Front door (paneled or flat) with large single light side-light

The California Ranch Style is typically one-story with a prominent, attached garage in line with front elevation or as a front “L”.
CHAPTER 3
DESIGN PRINCIPLES

PRINCIPLES FOR HISTORIC PRESERVATION

The design guidelines incorporate principles set forth in *The Secretary of the Interior’s Standards for the Treatment of Historic Properties*—a widely accepted set of basic preservation design principles. This document is compatible with the *Secretary of the Interior’s Standards*, while expanding on how these basic preservation principles apply in Pasadena. The Secretary’s Standards also apply to projects in Pasadena. They will be used in conjunction with the design guidelines presented in this document and the HPC will use them when making its decision.

The concept of historic significance

What makes a property historically significant? It is generally recognized that a certain amount of time must pass before the historical significance of a property can be evaluated. The National Register, for example, suggests that a property be at least 50 years old or have extraordinary importance before it may be considered for listing.

Properties may be significant that:
- Are associated with events that have made a significant contribution to the broad patterns of our history; or
- Are associated with the lives of persons significant in our past; or
- Embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.

Properties must also have integrity of location, design, setting, materials, workmanship, feeling and association.

Period of significance

Every historic building has a period of significance—or the time span during which it gained architectural, historical or cultural importance. A property is significant because it represents or is associated with a particular period or specific date in history. Frequently, this period of significance is its construction date and may also include the dates of subsequent additions or alterations. Portions of the building fabric that date from the period of significance typically contribute to the character of the structure.

Although more recent buildings may be considered significant, most historic resources in residential neighborhoods in Pasadena date from a time that spans approximately 80 years (1870-1950). Throughout this period, the city witnessed construction of a number of buildings and alterations that have become significant.

Concept of “integrity”

In addition to being historically significant, a property also must have integrity—a sufficient percentage of the structure must exhibit characteristics from the period of significance. The majority of the building’s structural system and its materials should date from that time and its key character-defining features also should remain intact. These may include architectural details, such as dormers and porches, ornamental brackets and moldings, materials such as exterior siding, as well as the overall mass and form of the building. It is these elements that allow a building to be recognized as a product of its time.
THE BASIC PRINCIPLES FOR PRESERVATION IN PASadena

While the guidelines provide direction for specific design issues, some basic principles of preservation form the foundation for them. The following preservation principles apply in Pasadena:

1. Respect the historic design character of the building.
   Don’t try to change a building’s style or make it look older than it really is. Confusing the character by mixing elements of different styles is not appropriate.

2. Protect and maintain significant features and stylistic elements.
   Distinctive stylistic features or examples of skilled craftsmanship should be treated with sensitivity. The best preservation procedure is to maintain historic features through proper maintenance from the outset so that intervention is not required. This includes rust removal, caulking, limited paint removal and reapplication of paint.

3. Preserve key, character-defining features of the property.
   Key features are those that help convey the character of the resource as it appeared during its period of historic significance. These may include the basic structural system and building materials, as well as windows, doors, porches and ornamentation. Typically, those features that are on the front of a building or that are highly visible from a public way will be most important.

4. Repair deteriorated historic features, and replace only those elements that cannot be repaired.
   Maintain the existing material, using recognized preservation methods whenever possible. If disassembly is necessary for repair or restoration, use methods that minimize damage to original materials and replace in the original configuration.

DEVELOPING A PRESERVATION STRATEGY

Each preservation project is unique. A project may include a variety of treatments, including the repair and replacement of features and maintenance of those already in good condition. In order to define the range of preservation treatments that may be needed in a project, follow these steps:

1. Research the history of the property.
   This analysis should begin with an investigation of the history of the property. This may identify design alterations that have occurred and may help in developing an understanding of the significance of the building as a whole as well as its individual components. In most cases, the City will have a record of the property’s history.

2. Assess existing conditions.
   Historical research should be combined with an on-site assessment of existing conditions. In this inspection, identify those elements that are original and those that have been altered. Also determine the condition of individual building components.

3. List use requirements.
   Finally, list the requirements for continued use of the property. Is additional space needed? Or should the work focus on preserving and maintaining the existing configuration?

4. Summarize a preservation strategy.
   By combining an understanding of the history of the building, its present condition, and the need for action, one can then develop a preservation approach.
Defining Preservation Treatments

When developing a preservation strategy, consider the application of these terms:

Maintenance
Work that often focuses on keeping the property in good working condition by repairing features as deterioration becomes apparent, using procedures that retain the original character and finish of the features. In some cases, preventive maintenance is executed prior to noticeable deterioration. No alteration or reconstruction is involved. Property owners are strongly encouraged to maintain their property in good condition so that more aggressive measures of rehabilitation, restoration or reconstruction are not needed.

Preservation
Keeping an existing building in its current state by a careful program of maintenance and repair. It will often include repair and stabilization of materials and features in addition to regularly scheduled maintenance. Essentially, the property is kept in its current good condition.

Rehabilitation
Rehabilitation is the process of returning a property to a state which makes a contemporary use possible while still preserving those portions or features of the property which are significant to its historic, architectural and cultural values. Rehabilitation may include the adaptive reuse of the building and constructing additions. Most good preservation projects in Pasadena may be considered rehabilitation projects.

Restoration
To restore, one reproduces the appearance of a building exactly as it looked at a particular moment in time; to reproduce a pure style—either interior or exterior. This process may include the removal of later work or the replacement of missing historic features. A restoration approach is used on missing details or features of an historic building when the features are determined to be particularly significant to the character of the structure and when the original configuration is accurately documented.

Renovation
To renovate means to improve by repair, to revive. Renovation is similar to rehabilitation, although it includes the use of some new materials and elements. The basic character and significant details are respected and preserved, but some sympathetic alterations may also occur. Alterations that are made are generally reversible, should future owners wish to restore the building to its original design.

Adaptive use
Converting a building to a new use that is different from its original purpose is considered to be adaptive use. For example, converting a residential structure to offices is adaptive use. A good adaptive use project retains the historic character of the building while accommodating new functions.

While adaptive use allows the building owner to convert the building to a purpose other than that for which it was designed, it should be done with respect to the original building form. For example, it would be inappropriate to turn the living room of a historic building into a bathroom. The reason for this is that when the programmatic uses of a building are drastically altered, this often results in a major change to the original floor plan as well as to the exterior appearance of the building. When adaptive reuse is the preferred preservation alternative, the proposed design should make use of the original building function as closely as possible.

Remodeling
To remake or to make over the design image of a building is to remodel it. The appearance is changed by removing original detail and by adding new features that are out of character with the original. Remodeling is inappropriate for historic buildings in Pasadena.
THE PREFERRED SEQUENCE OF PRESERVATION ACTIONS

Once the basic approach to a project has been defined, it is important to assess how the approach will affect the property and any significant character-defining features and materials. Retaining these elements, and using the guidelines to select an appropriate treatment mechanism will greatly enhance the overall quality of the preservation project. A preservation project should follow this sequence:

1. If a feature is intact and in good condition, maintain it as such.
2. If the feature is deteriorated or damaged, repair it to its original condition.
3. If it is not feasible to repair the feature, then replace it with one that is the same or similar in character (materials, detail, finish) to the original one. Replace only that portion which is beyond repair.
4. If the feature is missing entirely, reconstruct it from appropriate evidence.
5. If a new feature or addition is necessary, design it in such a way as to minimize the impact on original features.
Principles for Historic Preservation

Principles for Site Design & Infill

Designing a building to fit within an historic district requires careful thought. First, it is important to realize that, while an historic district conveys a certain sense of time and place associated with its history, it also remains dynamic, with alterations to existing structures and construction of new buildings occurring over time.

Designating a district assures that, when new building occurs, it will be in a manner that reinforces the basic visual characteristics of the area. This does not mean, however, that new buildings must look old. In fact, imitating historic styles found in Pasadena is generally discouraged; historians prefer to be able to “read” the evolution of the street, discerning the apparent age of each building by its style and method of construction. They do so by interpreting the age of a building, placing its style in relative chronological order. When a new building is designed to imitate a historic style, this ability to interpret the history of the street is confused.

Rather than imitating older buildings, a new design should relate to the historic design characteristics of the district while also conveying the stylistic trends of today. New construction may do so by drawing upon some basic building features—such as the way in which a building is located on its site, the manner in which it relates to the street and its basic mass, form and materials—rather than applying detailing which may or may not have been historically appropriate. When these design variables are arranged in a new building to be similar to those seen traditionally in the area, visual compatibility results. Therefore, it is possible to be compatible with the historic context of the district while also producing a design that is distinguishable as being newer than the historic buildings of the area.

Some people may be confused about this concept; for many, the initial assumption is that any new building in an historic district should appear to be old. On the contrary, the design guidelines for site design and infill presented in chapters 10 and 11 encourage new buildings that can be distinguished as being of their own time. At the same time, they do promote new building designs that would relate to the more fundamental similarities of an historic district.

These design principles draw upon comments from neighborhood residents in public meetings and also include information prepared by community residents, city planning staff and design consultants. The design principles presented in Chapters 10 and 11 are general and intended for broad application. Note that context of individual neighborhoods does vary and these general principles may not be appropriate in certain areas. For this reason more context specific guidelines are provided in Chapters 13 through 18.
THE BASIC PRINCIPLES FOR SITE DESIGN & INFILL

While the design guidelines for new construction provide direction for specific design issues, some basic design principles form the foundation for them. The following principles apply in Pasadena:

1. **Respect the design character of the nearby historic properties.**
   Don’t try to make a new building look older than it is. The copying or exact duplication of architectural styles or specific historic buildings is also inappropriate. Often, a contemporary interpretation of those architectural styles seen historically will work best.

2. **Maintain the setbacks and alignments of buildings in the surrounding context.**
   A new building should be set back a similar distance from the street as those nearby historic buildings and incorporate a landscaped area that is in keeping with the neighborhood. Other alignments, such as those seen from similar eave heights, porch heights and the relative alignment of window and door moldings, are also important.

3. **Relate to the scale of nearby historic buildings.**
   A new building should relate to the general size, shape and proportions of those buildings seen historically. It is equally important for a new building to use similar primary building materials, at least in appearance.

4. **Relate to the size of the lot.**
   A new building should be in proportion with the overall size of its lot. Generally, smaller homes are built on smaller lots, and larger homes are reserved for larger lots. Although many of the lots and the traditional scale of single-family houses in the historic districts are smaller than current tastes support, a new building should, to the greatest extent possible, maintain the established scale.
How are Guidelines Used?
Property owners should review the design guidelines, and *The Secretary of the Interior’s Standards for Rehabilitation* (Appendix G) when planning an improvement project, to assure that the work contemplated will help preserve the historic character of the property. The guidelines will be used by Pasadena’s Historic Preservation Commission (HPC) when making decisions about granting approval for a Certificate of Appropriateness.

The design review process is “reactive,” in that it only applies to proposed actions initiated by a property owner. While it guides an approach to certain design problems by offering alternative solutions, it does not dictate a specific outcome and it does not require a property owner to instigate improvements that are not contemplated. For example, if an owner plans to repair a deteriorated porch, the guidelines indicate appropriate methods for such work. If porch repair is the only work proposed by the property owner, the process does not require that other building features that may be deteriorated, such as a roof in poor condition, be repaired.

How Many Guidelines Should Be Met?
The HPC will consider each proposed project on a case-by-case basis, to determine compliance with relevant guidelines. In each case, a unique combination of design variables is at play and, as a result, the degree to which each relevant guideline must be met may vary.

What is the Format of a Guideline?
Each chapter containing design guidelines is organized in a way that provides background information as well as specific regulatory language. The chapters are divided into subtopics. For example, in the chapter addressing “Site Features”, the subtopics include: fences, site lighting and streetscape design. This organization allows the user to quickly select the relevant design topics within a section. A guideline contains the following components:

Policy statement
This is a broad statement explaining the City’s basic approach for the treatment of the design feature being discussed. This statement provides the basis for the more detailed background information and design guidelines that follow. In a case in which special conditions exist that do not appear to be anticipated in the guideline, then this broad policy statement should serve as the basis for determining the appropriateness of the proposed work.

Note that institutional uses (such as churches and libraries) are traditionally different in character from the residential buildings in the Landmark and Historic Districts. Many times they are located on their own, larger sites and surrounded by a grassy lawn or landscaping. Use of the guidelines for such projects will be considered on a case-by-case basis. Although public schools and other government-owned properties are not under the design review jurisdiction of the City, projects involving such institutions are encouraged to receive advisory reviews from the City.
Background information
A discussion of the issues typically associated with the specific design topic is presented next. This may include technical information, such as factors associated with the preservation of a historic building material, as well as general preservation theory that is relevant to the topic at hand.

Design guidelines
The specific design guidelines are presented as **bold face** statements. These are also numbered to indicate their relative position within a chapter and to aid in specific reference in the design review process. Also provided with the design guidelines are supplementary requirements, which clarify the primary design guideline statement and may suggest specific methods for compliance. These supplementary requirements are listed as bulleted (•) statements.

Illustrations
Design guidelines are further explained through the use of photographs and illustrations. Examples given should not be considered the only appropriate options. In most instances, there are numerous possible solutions that meet the intention of the design guidelines, as well as address the needs of the property owner.

Please note that the illustrations used in this document do not represent all of the possible design solutions available, and just because an approach is not listed or illustrated does not mean that it is not acceptable. If there are any questions regarding the appropriateness of a potential design solution contact the Planning and Development Department.

It is important to note that **all** of the elements of the design guidelines (i.e., including the introductory and informational sections, the policy statement, and the sub-points) constitute the material upon which the HPC will make its determination of the appropriateness of a proposed project.

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**Policy: Original wood should be protected against moisture and deterioration**

Wood is the dominant building material for residential and buildings in Pasadena. It is used for siding, framing, windows, doors and porches. To preserve the wood, it is important to maintain the painted or stained finish of the exterior.

6.9 **Protect wood features from deterioration.**
- Provide proper drainage and ventilation to minimize rot.
- Maintain protective coatings to retard drying and ultraviolet damage. If the building was painted historically, it should remain painted, including all trim. If the building was stained historically, it should remain stained.

**Illustration**: Protect wood features from deterioration. Maintain protective coatings to retard drying and ultraviolet damage.

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*A sample of the format of a design guideline and its components, as used in this document.*
Section II
Design Guidelines for Historic Buildings

This section presents the following topics:

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- Repair of architectural details 31
- Replacement of architectural details 33

Chapter 6: Historic Building Materials
- Preservation of original materials 37
- Repair of original materials 38
- Replacement of original materials 39
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Chapter 7: Individual Building Elements
- Porches 47
- Windows and doors 52
- Roofs, Gutters & Downspouts 60
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Chapter 8: Additions
- Design of an addition 68
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- Preservation of existing additions 71

Chapter 9: Seismic Retrofitting
- Retrofitting an historic structure 73
**INTRODUCTION**

This chapter presents the design policies and guidelines for the rehabilitation of an historic resource located in one of Pasadena’s historic districts and also for individual resources located throughout the City.

Architectural details are key features that define the character of an historic structure. They add visual interest, distinguish certain building styles and types and often showcase superior craftsmanship. Features such as window hoods, brackets and posts exhibit materials and finishes often associated with particular styles, and therefore their preservation is important.

**Treatment of Architectural Features**

Preserving original architectural features is critical to the integrity of an historic building. Where replacement is required, one should remove only those portions that are deteriorated beyond repair. Even if an architectural detail is replaced with an exact copy of the original, the integrity of the building as an historic resource is diminished and therefore preservation of the original feature is preferred.

**Materials for Replacement Details**

Using a material to match that employed historically is always the best approach. However, a substitute material may be considered for a detail when it appears similar in composition, design, color and texture to the original.

In the past, substitute materials were employed as methods of producing architectural features. Many of these historic “substitutes” are now referred to as traditional materials. For example, a stamped metal cornice on a commercial building was a substitute for stone. Just as these historic substitutes offered advantages over their predecessors, many new materials today hold promise. However, these alternative materials should not be used wholesale, but only when it is absolutely necessary to replace significantly deteriorated original materials with stronger, more durable ones.

Substitute materials may be considered when the original is not easily available, where the original is known to be susceptible to rapid decay, or where maintenance access may be difficult.

Another factor which may determine the appropriateness of using substitute materials for architectural details depends on their location and degree of exposure. For example, it may be wise to avoid using a fiberglass column on a front porch where it may be accidentally damaged. Conversely, the use of fiberglass to reproduce an eave detail on a second story may be successful.

In This Chapter:

- Structural details
- Ornamental details
Policy: **Original architectural details should be preserved in place whenever feasible.**

Architectural details—including their scale, texture and finish—contribute significantly to the character of a structure. Porches, turned columns and brackets, wood siding, chimneys, foundations, porch supports and window and door surrounds are examples of architectural details that should not be removed or altered. The best way to preserve many of these features is through well-planned maintenance.

### 5.1 Avoid removing or altering any significant architectural detail.
- Porches, turned columns, brackets, exposed rafter tails and jigsaw ornaments, if historic, are examples of architectural features that should not be removed or altered.
- Do not remove or alter architectural details that are in good condition or that can be repaired in place.

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

### 5.3 Protect and maintain significant stylistic elements.
- Distinctive stylistic features and examples of skilled craftsmanship should be treated with sensitivity.
- The best preservation procedure is to maintain historic features from the outset so that intervention is not required.
- Employ treatments such as rust removal, caulking, limited paint removal and reaplication of paint or stain.

### 5.4 Protect architectural details from moisture accumulation that may cause damage.
- Regularly check details that have flat or recessed surfaces which can hold moisture for long periods of time.
Policy: Deteriorated architectural details should be repaired rather than replaced, whenever possible.

In some cases, original architectural details may be deteriorated. Horizontal surfaces such as chimney caps and window sills are likely to show the most deterioration because they are more exposed to weather. When deterioration occurs, repair the material and any other related problems.

It is also important to recognize that all details weather over time and that a scarred finish does not represent an inferior material, but simply reflects the age of the building. Therefore, preserving original materials and features that show signs of wear is preferred to replacing them.

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

5.6 When disassembly of an historic element is necessary for its restoration, use methods that minimize damage to the original materials.
- When disassembly of an historic feature is required in a restoration procedure, document its location so it may be repositioned accurately. Always devise methods of replacing the disassembled materials in their original configuration.
5.7 Use technical procedures for cleaning, refinishing and repairing architectural details that will maintain the original finish.

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

More detailed information regarding the treatment of deteriorated wood may be found in Appendix A.

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

While restoration of the original material or feature is the preferred alternative, in some situations a portion of the original building material may be beyond repair. Replacement should occur only if the existing historic material cannot be repaired. In the event replacement is necessary, the new material should match that being replaced in design, color, texture and other visual qualities.

It is important, however, that the use of replacement materials be minimized, because the original materials contribute to the authenticity of the property as an historic resource. Even when the replacement material exactly matches the original, the integrity of an historic building is compromised when material is extensively removed. Extensive replacement results in the loss of historic integrity. Original material is physical evidence of labor and craftsmanship of an earlier time and this is lost when it is replaced.

5.8 Remove only that which is deteriorated and must be replaced.
- Replace only those portions that are beyond repair.
- Match the original in composition, scale and finish when replacing materials or features.

5.9 Replace missing original details in kind.
- If parts are damaged or missing, consider replacing them in kind with the same kind of material as the original.
- In some instances, substitute materials may be used for replacing architectural details. If substitute materials must be used, then they should convey the visual appearance of the original materials in design, scale, proportion, finish and appearance.
5.10 Repair or replacement of missing or deteriorated details should be based on original features.

- The design should be substantiated by physical or pictorial evidence to avoid creating a misrepresentation of the building’s heritage.

5.11 When reconstruction of a feature is impossible, developing a compatible new design that is a simplified interpretation of the original is appropriate.

- This is appropriate when inadequate information exists to allow for an accurate reconstruction of missing features.
- The new element should relate to comparable features in general size, shape, scale and finish.

5.12 Avoid adding ornamentation or other decorative elements, unless thorough research indicates that the building once had them.

- Conjectural “historic” designs for replacement parts that cannot be substantiated are inappropriate.
- Doing so gives the building a false “history” it never had.
- For primary structures, details may be copied from similar buildings within the neighborhood, when there is evidence that a similar element once existed. For example, where “scars” on the exterior siding suggest the location of decorative brackets but no photographs exist of their design, then designs for historic brackets on buildings that are clearly similar in character may be used as a model.
INTRODUCTION

Wood siding, wood shingles, stucco, Arroyo stone and brick were the typical primary building materials used on the exteriors for residences throughout Pasadena. Wood was typically painted or stained. Stucco was also used in a variety of applications as the primary exterior material. Later, however, stucco was used to cover original materials—such as horizontal clapboard siding. In most cases, this later stucco application has a negative effect on the character of the historic resource.

Brick and stone—used for building walls, chimneys, porch supports and foundations—was also used in construction of houses. The distinct characteristics of these building materials, including the scale of the material unit, its texture and finish, contribute to the historic character of a building.

The best way to preserve historic building materials is through well-planned maintenance. Wood surfaces, for example, should be protected with a good application of paint or stain. In masonry, horizontal surfaces such as chimneys, sills and parapet copings should be protected from exposure to sources of water.

In some cases, historic building materials may be deteriorated. When wear occurs, repairing the material rather than replacing it is preferred. Frequently, damaged materials can be patched or consolidated using special bonding agents.

In this Chapter:
Changing exterior materials
Repairing & cleaning exterior surfaces
Painting & paint removal
Stuccoing & re-stuccoing
Masonry & mortar
Removal of later covering materials
Color

Examples of building materials found in Pasadena.
In other situations, however, some portion of the material may be beyond repair. In such cases, replacement may be necessary. The new material should however, match the original in appearance. For example, if some form of wood siding had been used historically, the replacement should also be wood. It is important that the extent of the replacement be minimized, because the original materials contribute to the authenticity of the property as an historic resource. Even when the replacement material exactly matches that of the original, the integrity of an historic building is to some extent compromised. This is because the original material exhibits a record of the labor and craftsmanship of an earlier time and this is lost when it is replaced.

Rather than replace original materials, some property owners may consider covering them. Aluminum and vinyl siding and stucco are examples of materials that are often discussed. However, using any material, either synthetic or conventional, to cover historic materials is inappropriate. Doing so obscures the original character and changes the dimensions of walls, particularly noticeable around door and window openings. The extra layer may in fact cause additional decay, by its method of attachment, because it may trap moisture inside the wall and because it also creates cavities for insects to live. For similar reasons, if original wall materials are presently covered with a more recent siding, remove the outer layer and restoring the original. When damaged, these materials also can be more difficult to repaint, repair or replace. In some instances their removal (especially stucco) may pose difficulties. Before removing a later applied siding material a test patch removal in an inconspicuous location should be completed to determine the feasibility of removal and the extent of damage to the original material.

The best way to preserve historic building materials is through well-planned maintenance. Wood surfaces, for example, should be protected with a good application of paint or stain.
Policy: Original building materials should be preserved in place, whenever feasible.

Building materials—including their scale, texture and finish—contribute significantly to the character of a structure. The best way to preserve these features is through well-planned maintenance.

6.1 Maintain existing wall materials and textures.
- Avoid removing materials that are in good condition or that can be repaired in place.
- Remove only those sections of materials that are deteriorated and must be replaced.
- Avoid replacing a major portion of an exterior wall that could be repaired. Reconstruction may result in a building that has lost its integrity.
- In many cases, original building materials may not be damaged beyond repair and do not require replacement. Cleaning, re-painting or re-staining, ensuring proper drainage and keeping the material clean may be all that is necessary.

6.2 All wood surfaces should be painted or stained.
- Prior to painting or staining, remove damaged or deteriorated paint or stain using the gentlest method.
- Prior to painting, prime the surface.
- Use compatible paints. Also use a compatible undercoat that will create a good bond for new paint layers
- Avoid the use of texture coat paints that will alter the appearance of the original finish.

6.3 Preserve original roof materials.
- Avoid removing roof material that is in good condition. Replace it only when necessary.
- See also Preservation Briefs #4: Roofing for Historic Buildings, published by the National Park Service.
Policy: Deteriorated building materials should be repaired rather than replaced, whenever possible.

In some cases, original building materials may be deteriorated. When this occurs, repair the material and any other related problems that may lead to further damage. It is also important to recognize that all materials weather over time and that a scarred finish does not represent an inferior material, but simply reflects the age of the building. Preserving original materials that show signs of wear is therefore preferred to their replacement.

6.4 Repair deteriorated, primary building materials by patching, piecing-in, consolidating or otherwise reinforcing the them.
   • Avoid the removal of damaged materials that can be repaired.
   • Isolated areas of damage may be stabilized or fixed, using consolidants. Epoxies and resins may be considered for wood repair.

6.5 Use the gentlest means possible to clean a structure.
   • Perform a test patch to determine that the cleaning method will cause no damage to the material’s surface. Many procedures can actually result in accelerated deterioration or damage materials beyond repair.
   • If cleaning is needed, a low-pressure water wash may be appropriate. Chemical cleaning may also be considered.
   • Abrasive methods such as sandblasting are not appropriate, as they permanently erode building materials and finishes and accelerate deterioration.
   • See also Preservation Briefs #1: The Cleaning and Waterproof Coating of Masonry Buildings, published by the National Park Service.

More detailed information regarding the treatment of deteriorated wood may be found in Appendix A.

More detailed information regarding the removal of lead based paint may be found in Appendix B.
6.6 Use technical procedures for removal of hazardous materials that preserve, clean, re-finish or repair historic materials and finishes.

- See also Preservation Briefs #6: Dangers of Abrasive Cleaning to Historic Buildings, published by the National Park Service.
- An early paint layer may be lead-based, in which case, special procedures are required for removal or encapsulation.
- If siding materials that contain asbestos were used to cover original materials, it is highly recommended that they be removed. Please note that asbestos is a hazardous material and may require removal by a qualified contractor. Contact the City of Pasadena’s Hazardous Waste and Materials Division of the Fire Department if there is concern over asbestos contamination (626-744-4115).

Policy: Original building materials that have deteriorated beyond repair should be replaced in kind.

While maintaining the original material is the preferred alternative, in some situations the original building material (or a portion of it) may be beyond repair. Replacement should occur only if the existing historic material cannot be reasonably repaired. It is important that the use of replacement materials be minimized, because the original ones contribute to the authenticity of the property. Even when a replacement material exactly matches that of the original, the integrity of an historic building is compromised when material is extensively removed and replaced.

6.7 Match the original in composition, scale and finish when replacing exterior siding material.

- If the original material is wood clapboard, for example, then the replacement material should be wood as well. It should match the original in size, the amount of exposed lap and surface finish.
- Replace only the amount required.
6.8 Do not use synthetic materials, such as aluminum or vinyl siding or panelized brick, as replacements for primary building materials on an historic structure.

- Original primary building materials, such as wood siding and brick, should not be replaced with synthetic materials.
- See also *Preservation Briefs #16: The Use of Substitute Materials on Historic Building Exteriors*, published by the National Park Service.

6.9 Replacement roof materials for an historic structure should convey a scale and texture similar to those used traditionally.

- When choosing a roof replacement material the architectural style of the structure should be considered.
- Where replacement is necessary, use materials similar to those seen historically and which are appropriate to the architectural style.
- In general, metal roofs are inappropriate.
Policy: The covering of original building materials is inappropriate.

Rather than repairing or replacing siding, some property owners may entertain the idea of covering the original building material. Stucco, aluminum and vinyl siding are examples of materials that are often considered. Using any product to cover historic materials is inappropriate. Doing so obscures the original character and changes the dimensions of walls, which is particularly noticeable around door and window openings. If original wall materials are presently covered consider removing the outer layer and restoring the original materials.

6.10 Historic building materials and features should not be covered.
- No material should be applied as a covering to an historic one.
- Synthetic stucco, panelized brick, vinyl, aluminum or other composite siding materials are inappropriate.
- See also Preservation Briefs #8: Aluminum and Vinyl Siding on Historic Buildings, published by the National Park Service.
- See also “Should I Stucco My Wood House,” published by the City of Pasadena.

6.11 Consider removing materials that cover original siding.
- Removing later covering materials is encouraged.
- In some instances a later covering may have achieved historic significance, especially if it was applied early in the building’s history. When this is the case, the later covering may be maintained on the structure.
- Do not re-side a building with another covering material if another non-historic covering already exists. Removing the covering to expose the original material is appropriate in such a case.
- Once the covering has been removed, repair the original underlying material.

More detailed information regarding the removal of stucco from historic wooden surfaces may be found in Appendix C.
Policy: **Original wood should have a protective finish.**

Wood is a major building material on historic single-family residential structures in Pasadena. It is used for siding, framing, windows, doors and porches. To preserve wood, it is important to maintain a painted or stained finish.

6.12 **Protect wood features from deterioration.**
- Provide proper drainage and ventilation to minimize rot.
- Maintain protective coatings to retard drying and ultraviolet damage. If the building was painted historically, it should remain painted, including all trim. If the building was stained historically, it should remain stained.

More detailed information regarding the treatment of deteriorated wood may be found in Appendix A.
6.13 Plan repainting or re-staining carefully.
- Note that frequent repainting of siding and trim materials may cause a build up of paint layers that obscures architectural details. When this occurs, consider stripping paint layers to retrieve details. However, if stripping is necessary, use the gentlest means possible, being careful not to damage architectural details and finishes.
- Good surface preparation is key to successful repainting. The complete removal of old paint, by the gentlest means possible, should be undertaken only if necessary to the success of the repainting.
- Old paint may contain lead. Precautions should be taken when sanding or scraping.
- Prepare a good substrate (primer) and use compatible paints or stains. Some latex paints will not bond well to earlier oil-based paints without a primer coat.
- See also Preservation Briefs #10: Exterior Paint Problems on Historic Woodwork, published by the National Park Service.

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

More detailed information regarding paint removal from exterior wooden surfaces may be found in Appendix D.
Policy: Masonry construction should be preserved in its original condition.

Many buildings include brick or stone for structural walls, porch piers and chimneys. Although it is a very durable material, masonry is not invulnerable. Therefore the proper maintenance and preservation of masonry is important.

6.15 Preserve the original mortar joint and unit size, the tooling and bonding patterns, coatings and color of masonry surfaces.
- Original mortar, in good condition, should be preserved in place.

6.16 Repoint only those mortar joints where there is evidence of moisture problems or when sufficient mortar is missing.
- Duplicate the old mortar in strength, composition, color, texture and joint width and profile.
- Mortar joints should be cleared with hand tools. Using electric saws and hammers to remove mortar can seriously damage the adjacent masonry.
- Mortar should fill the joint but should not overfill it, and it should not be applied on the faces of the masonry units.
- See also Preservation Briefs #2: Repointing Mortar Joints in Historic Brick, published by the National Park Service.
- Correct any problems that caused mortar loss or deterioration or the deterioration of the mortar may occur again.

6.17 Masonry that was not painted historically should not be painted.
- Masonry naturally has a water-protective layer, or patina. Painting masonry walls can seal in moisture already in the masonry, thereby not allowing it to breathe and causing extensive damage over the years.
6.18 Protect masonry from water deterioration.
• Provide proper drainage so that water does not stand on flat, horizontal surfaces or accumulate in decorative features.

6.19 Original stucco coatings over masonry should be maintained in good condition.
• Where deterioration of the stucco exists, that portion only should be repaired.
• Where original stucco has been removed from brick, then re-stuccoing may be considered.
Individual Building Elements: Porches

Many Pasadena houses have porches as prime character defining features. Because of their historical importance and prominence, porches should be preserved. A porch protects an entrance from rain and provides shade. It also provides a sense of scale and aesthetic quality to the facade of a building. Finally, a porch often connects a house to its context by orienting the entrance to the street. Porches should receive sensitive treatment during exterior rehabilitation and restoration work.

Porch Structure

Porch designs vary as much as architectural styles. They differ in height, scale, location, materials and articulation. A porch may be cut in, project or wrap around a corner and it may have elaborate details and finishes. Although they vary in character, most porches have these elements in common:

- Balustrades and railings
- Posts (columns)
- Architectural details
- Gabled, hipped or flat shed roofs

These elements often correspond to the architectural style of the house and therefore the entire building’s design character should be considered before any major rehabilitation or restoration work is done.

Porch Deterioration

Because of constant exposure to sun and rain, a porch may decay faster than other portions of a house. Furthermore, if water is not channeled away from the foundation of the porch its footings may be damaged. Peeling paint is a common symptom. In some cases the porch itself may experience sagging or detachment from the house due to settling.
Porch Alterations
In some cases, original porches have been subsequently altered. Some have had minor changes, such as roof repairs or repainting, while others have been altered to the degree that they have lost much of their character. For instance, wood columns and balustrades sometimes have been replaced with thin “wrought iron” railings and posts. In other cases, stone or brick piers have been plastered. This compromises the proportions and integrity of the house.

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

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

It is not necessary to strictly replicate the details of the porch on most historic buildings; however, it is important that new details be compatible with the design of the porch and the style of the house. The replacement railing on the top photograph is in scale with that seen historically, whereas the balusters are spaced too widely in the bottom photo.
Replacing a Porch
While replacing an entire porch is discouraged, it may be necessary in some cases. When a porch is to be replaced, the first step is to research the history of the house to determine the appearance and materials of the original porch. In doing so, one should search for: 1) documentation of the original porch in the form of historic photographs, sketches and/or house plans; 2) physical evidence of the original porch, including “ghost lines” on walls that indicate the outline of the porch and/or holes on the exterior wall that indicate where the porch may have been attached to the front facade; 3) examples of other houses of the same period and style that may provide clues about the design and location of the original porch.

The most important aspects of a replacement design are its location, scale, materials. Unless reconstructing a porch from historical documentation, it is not necessary to replicate the details of the original porch or a porch design copied from a similar style house. However, it is important that new details be compatible with the design of the porch and the style of the house.
Policy: Maintain a porch and its character-defining features.

7.1 Maintain an historic porch and its detailing.
- Do not remove original details from a porch. These include the porch posts, balustrade and any decorative brackets that may exist.
- Maintain the existing location, shape, details, and posts of the porch.
- Missing or deteriorated decorative elements should be replaced to match existing elements; e.g., match the original proportions and spacing of balusters when replacing missing ones.
- Where an historic porch does not meet current code requirements and alterations are required, request that the City apply the State Historic Building Code so that the porch may be constructed as it originally appeared.

7.2 New porch posts should be in scale and proportion to those used historically.
- They should be of a substantial enough size that the porch roof does not appear to "float" above the entry.
- Where supports exist that were part of a later alteration, consider replacing them with more appropriate supports.

Avoid using a porch post that would be substantially smaller than other supports on the porch or than seen historically.

Maintain an historic porch and its detailing.
7.3 If a complete new porch is necessary, reconstruct it to match the original in form and detail.

- Use materials similar to the original.
- Where no evidence of the original historic porch exists, a new porch may be of a compatible design or one that is similar in character to those found on comparable buildings.
- The height of the railing and the spacing of balusters should be similar to those used historically.

7.4 Avoid enclosing an historic front porch with opaque materials.

- Enclosing a porch with opaque materials that destroy the openness and transparency of the porch is inappropriate.
- When a porch is enclosed or screened, it should be done with a transparent material. This material should be placed behind porch posts.
INDIVIDUAL BUILDING ELEMENTS:
WINDOWS & DOORS

Windows and doors are some of the most important character-defining features of historic structures. They give scale to buildings and provide visual interest to the composition of individual facades. Distinct window and door designs in fact help define many historic building styles. They often are recessed into openings and or they have surrounding casings and sash components which have a substantial dimension that cast shadows which also contributes to the character of the historic style.

WINDOWS

Window Construction
The proportions, orientation and divisions of an historic window are among its essential features. Another important feature is the arrangement and number of “lights,” or panes, into which a window is divided. Many early windows on Craftsman-influenced houses in Pasadena were horizontally proportioned, for example.

Window Types
Window types typically found in historic structures of Pasadena include:
- **Casement** - Hinged windows that swing open, typically to the outside
- **Double hung** - Two sash elements, one above the other. Both upper and lower sashes slide within tracks on the window jambs.
- **Fixed** - The sash does not move.
- **Single hung** - Two sash elements, one above the other. Only the lower sash moves.

Deterioration of Historic Windows
Properly maintained, original windows will provide excellent service for decades. Most problems that occur result from a lack of proper maintenance. For example, the accumulation of layers of paint on a wood sash may make operation difficult. Using proper painting techniques, such as removing paint layers and repainting or refinishing, can solve this problem.

Water damage and the ultraviolet degradation caused by sunlight also are major concerns. Damage occurs when the painted layer is cracked or peeling. Decay can result that may make operation of the window difficult, and if left untreated can lead to significant deterioration of window components. In most cases, windows are protected if a good coat of paint is maintained.

**Repair of Historic Windows**
Whenever possible, repair a historic window, rather than replace it. In most cases it is in fact more economical to repair the existing frame and glass rather than to replace them. Another benefit to repair is that the original materials contribute to the historic character of the building. Even when replaced with an exact duplicate window, a portion of the historic building fabric is lost and therefore such treatment should be avoided.
When deciding whether to repair or replace a historic window first, determine the window’s architectural significance. Is it a key character-defining element of the building? Typically, windows on the front of the building and on sides that are visible from the street are key character-defining elements. Windows which are located on other walls which are less visible from public right-of-way are typically less significant. Greater flexibility in the treatment or replacement of such secondary windows may be considered.

A second step is to inspect the window to determine its condition. Distinguish superficial signs of deterioration from actual failure of window components. Peeling paint and dried wood, for example, are serious problems, but often do not indicate that a window is beyond repair. What constitutes a deteriorated window? A rotted sill may dictate its replacement, but it does not indicate the need for an entirely new window. Determining window condition must occur on a case-by-case basis; however as a general rule, a window merits preservation, with perhaps selective replacement of components, when more than fifty percent of the window components can be repaired.

Third, determine the appropriate treatment for the window. Surfaces may require cleaning and patching. Some components may be deteriorated beyond repair. Patching and splicing in new material for only those portions that are decayed should be considered in such a case, rather than replacing the entire window. If, however, the entire window must be replaced, the new one should match the original in appearance.

**Replacement Windows**

While replacing an entire window assembly is discouraged, it may be necessary in some cases. When a window is to be replaced, the new one should match the appearance of the original to the greatest extent possible. To do so, the size and proportion of window elements, including glass and sash components, should match the original. In most cases, the original profile, or outline of the sash components, should be the same as the original. At a minimum, the replacement components should match the original in dimension and profile and the original depth of the window opening should be maintained.

A frequent concern is what the material of the replacement window should be. While wood was most often used historically, metal and vinyl clad windows are common on the market today and sometimes are suggested as replacement options by window suppliers. In general, using the same material as the original is preferred. If the historic window was wood, for example, then using a wood replacement is the best approach.
However, it is possible to consider alternative materials in some special cases, if the resulting appearance will match that of the original, in terms of the finish of the material, its proportions and profile of sash members. For example, if a metal window is to be used as a substitute for a wood one, the sash components should be similar in size and design to those of the original. The substitute material also should have a demonstrated durability in similar applications in this climate.

Finally, when replacing a historic window, it is important to preserve the original casing when feasible. This trim element often conveys distinctive stylistic features associated with the historic building style and may be costly to reproduce. Many good window manufacturers today provide replacement windows that will fit exactly within historic window casings.

**Doors**

Doors are important character-defining features of historic structures, which give scale to buildings and provide visual interest to the composition of individual facades. Many historic doors are noted for their materials, placement and finishes. Because an inappropriate door can affect the character of an historic building, one should be careful to avoid radical alteration of an old door and, if needed, choose a new one that is appropriate to the period.

**Door Types**

There are many different types of doors found on historic structures in Pasadena. These include the doorway with transom, paneled door, glass paneled door and the half-glass door. Some door designs also relate to individual architectural styles. Some of the styles that have a “typical” door design associated with them include the Period Revival, Craftsman and Colonial Revival.

**Door types seen in Pasadena include:**

- **Doorway with transom** - Typically a wooden door topped with a rectangular transom with glass.
- **Paneled door** - Wooden door with raised panels.
- **Glass paneled or half-glass door** - This type of door has either several smaller glass openings or one wide sash of glass in the upper portion of the door.
- **Period Revival door** - This type of door is typically wider than other traditional door types and includes a large portion of the door to small panes of glass.
- **Craftsman door** - This type of door is also typically wider than other traditional doors. It incorporates both wood and glass panels typically in geometric patterns. Leaded or art glass is common.
- **Colonial Revival door** - Either a paneled or glass paneled door sometimes with transom windows and/or sidelights.

![Door types](image-url)
Door Features
Important features include the materials and details of the door itself, its frame, sill, head, jamb and any flanking windows or transoms.

Maintenance Issues of Historic Doors
Because a historic door is typically constructed of thick planks of wood and is often sheltered by a porch, it tends to be long-lasting. However, deterioration does occur; most problems result from a lack of maintenance and unmaintained doors exposed to the sun. A door also may be worn and sagging from constant use. As a result, some historic doors do not properly fit their openings and therefore may allow moisture and air into the house.

Repair of Historic Doors
Typically, a problem door merely needs to be rehung. This treatment is preferred rather than replacing it altogether. It is often easier, and more economical, to repair an existing door rather than to replace it. When deciding whether to repair or replace a historic door first, determine the door’s architectural significance. Is it a key character-defining element of the building? Is the front door in a prominent position on a primary facade such that it is highly visible? Is the design of the historic door indicative of the architectural style or building type? If the answer to one or more of these questions is “yes,” then preservation is the best approach. A door in an obscure location, or on the rear of a structure may not be considered a prominent feature of the house. Thus, greater flexibility in the treatment or replacement of such doors may be considered.

Second, inspect the door to determine its condition. Is the door hanging out of alignment or does it lack proper hardware and framing components that make it functional? If so, replacing these elements is appropriate. Check the door to see that it opens and closes smoothly and that it fits in its jamb. Some problems may be superficial ones, such as peeling paint or deteriorated detailing. These are issues that can be remedied without altering the historic character.

Third, determine the appropriate treatment for the door. In many cases the door may not fit the door jamb or threshold as it should. In this case the hinges and the threshold of the door should be tightened or refit to allow smooth opening and closing. Shaving or undercutting the door to fit the door frame is not recommended as a solution.

When rehabilitating a historic door it is important to maintain original doors, jambs, transoms, window lights and hardware. Surfaces may require cleaning and patching and some components may be deteriorated beyond repair. Patching and splicing in new material for only those portions that are damaged should be considered in such a case, rather than replacing the entire door.

Replacement Doors
While replacing an entire door assembly is discouraged, it may be necessary in some cases. When a door is to be replaced, the new one should match the appearance of the original. In replacing a door, one should be careful to retain the original door location, size and shape. In addition, one should consider the design of the door, choosing a replacement that is compatible with the style and type of the building.

A frequent concern is the material of the replacement door. In general, using the same material as the original is preferred. If the historic door was wood, then using a wood replacement is the best approach. Finally, when replacing a historic door, it is important to preserve the original frame when feasible. This is important in keeping the size scale and configuration of the original door.
The character-defining features of historic windows and doors, as well as there distinct arrangement, is important and should be preserved. Features important to the character of a window that should be preserved include its glass (either clear or stained on some Arts and Crafts period houses), frame, sash, muntins, mullions, glazing, sills, heads, jambs, moldings, type, location and relation to other windows.

Features important to the character of a door that should be preserved include the door itself, door frame, screen door, threshold, glass panes (again, sometimes clear or stained), paneling, hardware, detailing, transoms and flanking sidelights.

7.5 Preserve the location, number, size and arrangement of historic windows and doors in a building wall.

- Enclosing an historic opening in a key character-defining facade is inappropriate, as is adding a new opening.
- Do not reduce an original opening to accommodate a smaller window or door. Restoring original openings which have been altered over time is encouraged.
- The proportions and arrangement of windows contribute to the character of each residence and should be preserved. Although most residential windows had a vertical emphasis, many of those seen on Craftsman influenced houses had a horizontal emphasis.
7.6 Preserve the functional and decorative features of an historic window or door.

- Repair frames and sashes rather than replacing them, whenever conditions permit. If repair is not possible, replace with a similar shape, size, configuration, molding profile and material.
- Maintain the original number of divided lights in a window or door.
- Repair damaged or non-functional hardware when feasible. Hardware that cannot be repaired should be replaced with hardware that would be in keeping with the design of the structure.

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

- Remove built-up paint on both the interior and exterior surfaces.
- Disassemble sash components and repair or stabilize the wood.
- Re-glazing, or replacement of the putty that holds in glass lights, may also be necessary.
- Repair and refinish the frame as needed.
- Replace broken sash cords with new cords or chains.
- Install new weather-stripping.
- Repaint the wooden members of the repaired and reassembled window or door.
- Avoid the removal of damaged wood that can be repaired.
- See also Preservation Briefs #9: The Repair of Historic Wooden Windows, published by the National Park Service.
- See also the Design Guidelines for Historic Building Materials found in Chapter 6.

7.8 Glazing in doors should be retained.

- If glass is broken or has been removed in the past, consider replacing it with new glass.
- Remember that doors may have to meet certain requirements of the building code; check with City staff to be sure. The City may elect to apply the State Historic Building Code where there is conflict.

7.9 Installing window air-conditioners in windows on a building front is inappropriate.
Policy: A new or replacement window or door should match the appearance of the original.

While replacing an entire window or door is discouraged, it may be necessary in some cases. It is possible to consider alternative materials, if the resulting appearance matches the original as closely as possible. The substitute also should have a demonstrated durability in this climate.

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

- If the original window is double-hung, then the replacement should also be double-hung. Match the replacement also in the number and position of glass panes.
- Very ornate windows or doors that do not reflect the character of original windows or doors are inappropriate.
- A substitute material may be considered if it will match those of the original in dimension, profile and finish.
- The use of low-emissivity ("Low-E") glass is discouraged in new or replacement windows.
- Preserve the original casing, when feasible.

7.11 Maintain the historic window arrangement on a primary facade.

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

7.12 When appropriate, a new opening should be similar in location, size and type to those seen traditionally.

- Windows should be simple in shape, arrangement and detail.
- Unusually shaped windows, such as triangles and trapezoids are inappropriate.
7.13 Windows and doors should be finished with trim elements similar to those used traditionally.
- This trim should have a dimension similar to that used historically.
- Divided lights should be formed from smaller mullions integral to the window.

7.14 On a new or replacement window, wooden snap-in muntins may be considered.
- Snap-in muntins may only be considered on building walls other than the primary elevation.
- Snap-in muntins may be an alternative if they create the same affect as true divided lights. Often, this means that muntins will need to be used on both the inside and outside of the window.

7.15 If security is a concern, consider using wire glass, tempered glass, or light metal security bars.
- These should be installed on the interior of the window or door whenever feasible.

7.16 Match the profile of the sash and its components, as closely as possible to that of the original window.
- An historic wood window has a substantial profile. The way in which the sash distinguishes the actual window from the surrounding plane of the wall and is important.
- In general, it is best to replace wood windows with wood, especially on the primary facade.
- Non-wood materials, such as vinyl or aluminum, may be considered on secondary facades if they accomplish the following:
  - the original casings are preserved
  - a majority of the original glazing is maintained
  - the finish is similar to those seen historically
  - the profile of the proposed replacement window is similar to those seen historically

When replacing a window, match the profile of the sash, as closely as possible to that of the original window.
INDIVIDUAL BUILDING ELEMENTS:
ROOFS, GUTTERS &
DOWNSPOUTS

The character of the roof is a major feature for most historic structures. When repeated along the street, the repetition of similar roof forms contributes to a sense of visual continuity for many historic neighborhoods. The roof pitch, its materials, size and orientation are all distinct features that contribute to the character of a building. Gabled and hip forms occur most frequently in Pasadena, although shed and flat roofs appear on some residential building types. Some residences have shallow sloping flat roofs that are hard to see, so there is a tendency to forget about them until problems develop.

Although the function of a roof is to protect a structure from the elements, it also contributes to the overall character of the building. Various roof forms are that are seen in the historic districts of Pasadena are illustrated at right.

Roof Deterioration
The roof sheathing is the structure’s main defense against the elements. However, all components of the roofing system are vulnerable to leaking and damage. When the roof begins to experience failure, many other parts of the structure may also be affected. For example, a leak in the roof may lead to damage of rafter tails or even wall surfaces. Common sources of roof leaks include:
- Cracks in chimney masonry
- Loose flashing around chimneys and ridges
- Loose or missing roof shingles
- Cracks in roof membranes caused by settling rafters
- Water backup from plugged gutters

Repairing an Historic Roof
When repairing or altering an historic roof it is important to preserve its character. For instance, one should not alter the pitch of the historic roof, the perceived line of the roof from the street, or its orientation to the street. The original depth of the overhang of the eaves, which is often key to the style of the house, should also be preserved.
Roof Materials
A variety of roof materials exists in the historic districts. Today, the use of composition shingles dominates. Roof materials are major elements in the street scene and contribute to the character of individual building styles. However, they are the most susceptible to deterioration, and their replacement may become necessary in time.

When repairing or altering an historic roof, one should avoid removing significant materials that are in good condition. Where replacement is necessary, such as when the historic roofing material fails to properly drain, one should use a material that is similar in appearance to the original in style and texture. The overall pattern of the roofing material also determines whether or not certain materials are appropriate. For instance, wood and composition shingles have a uniform texture, while standing seam metal roofs cause a vertical pattern.

Wood and composition shingles are appropriate replacement materials for most roofs. A specialty roofing material, such as tile or composition roll roofing, should be replaced with a matching material whenever feasible.

Roof-Top Additions and Dormers
For more information about roof-top additions or the appropriate use of dormers, consult the design guidelines for Additions found in Chapter 8.

Policy: Preserve the original form, materials, eaves, rafter tails, gutters and other features of an historic roof.

Typical residential roof shapes in Pasadena are gabled, cross-gabled and hipped. Because roof forms and details are often some of the most significant character-defining elements, their preservation is important.

7.17 Preserve the original roof form of an historic structure.
• Some residences have shallow sloping flat roofs that are hard to see, so there is a tendency to forget about them until problems develop.
• Avoid altering the slope profile of an historic roof. Instead, maintain the line and orientation of the roof as seen from the street.
• Retain and repair roof detailing.
• Repairing a basically sound roof can be much less expensive than a complete replacement. If replacing some shingles is necessary, match the color, material, and pattern of the original as closely as possible.
Some residences have shallow sloping flat roofs that are hard to see, so problems that develop are not as detectable.

7.18 Preserve the original eave depth.
- The shadows created by traditional overhangs contribute to one's perception of the building's historic scale and therefore, these overhangs should be preserved. Cutting back roof rafters and soffits, adding fascia boards where none existed or in other ways altering the traditional roof overhang is therefore inappropriate.
- Boxing in exposed roof rafters is inappropriate.

7.19 Exposed rafter tails should be protected against deterioration.
- Maintain proper drainage on a roof to avoid the accumulation of moisture in and around the rafter tails.
- Where current deterioration exists, a borate treatment should be considered to deter future rot.
- Metal caps placed over the end of the rafter tail may also be an appropriate solution. The visual impact of the metal cap should be minimized however.

7.20 Regular maintenance and cleaning is the best way to keep a roof in good shape.
- Inspect the roof for breaks, or holes in the surface, and to check the flashing for open seams.
- Watch for vegetation such as moss or grass which indicates accumulated dirt and retained moisture and can lead to damaged roof, gutter or downspout materials.

More detailed information regarding the treatment of deteriorated wood may be found in Appendix A.
7.21 Water from gutters and downspouts should drain away properly.
• Ideally, a downspout should empty into an underground drainpipe that takes the water to the sewer or street.
• If this is not possible, a downspout should empty onto a metal or concrete splashblock that slopes downward and away from the building.

7.22 Minimize the visual impacts of skylights and other rooftop devices.
• Locating a skylight or a solar panel on a front roof plane should be avoided.
• Skylights and solar panels should not be installed in a manner that will interrupt the plane of the historic roof. They should be lower than the ridgeline.
• Flat skylights that are flush with the roof plane may be considered on the rear and sides of the roof.
INDIVIDUAL BUILDING ELEMENTS:
FOUNDATIONS & CHIMNEYS

Sometimes well-meaning actions can result in damage to foundations or chimneys, but lack of good maintenance practice is the biggest problem. The foundation of an older building usually consists of the footing, a concrete or masonry structure which is typically wider than the wall above it (its role is to spread the building’s weight out so the surrounding soil can support it); and the foundation wall, which rises from the footing to or above the ground surface. Foundation wall materials vary; they may be concrete, rough or finished stone, or brick. In some locales and some architectural styles, very high foundation walls may be used for practical or aesthetic reasons.

Policy: Maintain a foundation in good condition by keeping moisture away from it.

7.23 Make sure the soil or pavement next to the foundation wall slopes away and not toward the wall. This will keep water from soaking down into the wall and surrounding soil. Wet soil can lose its weight-supporting capacity and result in foundation and wall cracks.
- Provide positive drainage away from foundations to minimize accumulation of moisture.
- Watch for open joints between pavement and foundation wall where water flowing down the wall can get into the soil.

7.24 An original foundation should be reinforced and/or bolted to the house to minimize earthquake damage to both foundation and house.

7.25 Replace or rebuild a complete new foundation only when deterioration is substantial.
- Use original foundation materials on front or more visible areas, e.g., porch foundation.
- Where rock or brick was the original, then poured-in-place concrete should only be used for inconspicuous places. Face a concrete foundation with a traditional material. Brick or stone may be considered.
Policy: The proper maintenance and repair of historic chimneys is important.

Chimneys and fireplaces are an integral part of most historic residential construction in Pasadena. The sole purpose of a chimney is the safe removal of smoke and sparks, although they also represent a major visual design element for a building. The character and style of a historic chimney is often integral to the architectural style of the primary structure. Any major deterioration of a chimney compromises this purpose, with many implications for the comfort and safety of the building’s inhabitants.

7.26 An historic chimney should be preserved.
- An historic chimney should not be redesigned or made more decorative than the original chimney.

7.27 Repair minor problems in a chimney before considering replacement or reconstruction.
- Repoint a chimney that exhibits loss of moisture due to structural problems or moisture penetration. See also the design guidelines for masonry in Chapter 6.
- If cracks exist in the chimney and smoke leaks, then consider inserting a flexible flue liner inside the chimney structure.
- Stabilize a leaning chimney with an iron collar and rod. This arrangement, however, will only be adequate in the early stages of leaning.
- If it must be reconstructed, be sure to adequately photograph the original chimney so it can be accurately duplicated.

7.28 If replacement is necessary, the new chimney should be in the historic style.
- The chimney shape should match that of the historic one being replaced.
- The brick laying pattern and mortar should match that of the historic chimney being replaced.
7.29 If a structure historically had a chimney, but it no longer exists, consider reconstructing it to match the original in form and detail.

- Use historic documentation to match the new chimney with that of the original one. The materials, their arrangement and mortar design and overall chimney form should match as closely as possible.
- Where no evidence of the original historic chimney exists, a new chimney may be of a compatible design or one that is similar in character to those found on comparable buildings.

7.30 A chimney should be reinforced and/or secured to the house to minimize earthquake damage to the chimney.

- See also the design guidelines for seismic retrofitting an historic structure for more information and source materials for seismic stabilization techniques.

7.31 A chimney should be regularly checked for deterioration.

- Annual chimney inspections should be conducted for leaning, cracking, deteriorated pointing or brickwork, deteriorated flashing, deteriorated flue liner, buildup of surface soot and intrusions such as nest or debris.

7.32 Adding a new chimney (and fireplace) to a structure where no chimney existed historically is discouraged.

- However, if a chimney is designed to be similar to those seen historically on other buildings of the same type or style, and is located on a secondary elevation, then its use will be considered by the HPC on a case-by-case basis.
CHAPTER 8

DESIGN GUIDELINES FOR ADDITIONS

INTRODUCTION

Many historic buildings in Pasadena, including secondary structures, experienced additions over time as need for more space occurred. In some cases, owners added a wing onto a primary structure for use as a new bedroom, or to expand the kitchen. Typically the addition was subordinate in scale and character to the main building. The height of the addition was usually lower than that of the main structure and was often located to the side or rear, such that the original plan and facade remained intact.

The addition was often constructed of materials that were similar to those used on the original structure. In some cases, owners simply added dormers to an existing roof, creating more usable space without increasing the footprint of the structure. These traditional ways of adding onto historic buildings are preferred solutions for new additions. It is important that a new addition be designed in such a manner that it preserves the historic character of the original structure.

Existing Additions

An early addition may have taken on historic significance itself. It may have been constructed to be compatible with the original building and it may be associated with the period of historic significance, thereby meriting preservation in its own right. In contrast, more recent additions usually have no historic significance. Some later additions detract from the character of a building, and may obscure significant features and detract from the character of the building. Such inappropriate additions do not have historic significance, and the removal of such noncontributing additions should be considered.

In This Chapter:
Preservation of existing additions
Design of an addition
Roof-top additions

This addition is reduced in scale and is more clearly separated from the historic building with a connector, which is a preferred solution.

This addition is too large and is directly attached to the historic structure, and is inappropriate.
Basic Principles for New Additions
When planning an addition to an historic building, one should minimize negative effects that may occur to the historic building fabric. While some destruction of historic materials is almost always a part of constructing an addition, such loss should be minimized.

An addition also should not affect the character of the building. In most cases, loss of character can be avoided by locating the addition to the rear. The overall design of the addition also must be in keeping with the design character of the historic structure. At the same time, it should be distinguishable from the historic portion, such that the evolution of the building can be understood. This may be accomplished in a subtle way, with a jog in wall planes or by using a trim board to define the connection.

Policy: Design an addition to be compatible with the original building.

When creating an addition to an historic structure, the new work should be recognized as a product of its own time and yet the loss of the building’s historic fabric should be minimized. A design for a new addition that would create an appearance inconsistent with the historic character of the building is inappropriate.

8.1 Design an addition so that it will not obscure or damage character-defining features (such as windows, doors, porches, brackets or roof lines).
- An addition that implies an earlier or later period than that of the building is inappropriate.
- An addition that details that are not a part of the historic style of the building is inappropriate.
8.2 An addition should respect the proportions, massing and siting of an historic building.
- The form solid to void relationship and detailing of an addition should be compatible with the historic building.
- Set a side addition back from the primary facade in order to allow the original proportions, form and overall character of the historic building to remain prominent.
- If an addition would be taller than the main building, set it back substantially from primary character-defining facades.
- A small “connector” linking the historic building and the addition may be considered.

8.3 The materials of an addition should be similar to that of the original structure.

8.4 The roof form of an addition should be compatible with that of the primary structure.
- Roof on an addition should relate to the pitch and orientation of the primary structure’s roof.

8.5 Windows in an addition that are visible from the public way should be compatible with those of the historic structure.
- The window-to-wall ratio should be similar to that of the historic structure.
- Windows should be different in design or detailing to help distinguish the addition as being new.

Set a rooftop addition back from the front of the building. The “pop-top” addition on the lower sketch overwhelms the pedestrian scale of the district.

Place an addition at the rear of a building or set it back from the front to minimize the visual impact on the historic structure and to allow the original proportions and character to remain prominent.

As seen from the street (top photo) the addition to the rear of this structure is not visible. This is encouraged.
Dormers were sometimes used to create more headroom. In the bungalow houses of Pasadena, most dormers were located on the front elevation. In some instances the dormers may have been used on the side of a building. A roof or dormer addition should be designed in a manner that minimizes damage to historic building fabric, does not alter the scale and form from the street and is in keeping with the character of the original structure.

8.6 A roof-top addition should be in character with the style of the primary structure.
- A new dormer should be in character with the style and roof pitch of the primary structure. Gabled, hipped or shed dormers are appropriate for most structures.
- A dormer that is added to the primary elevation of a building simply as a design feature, and not to expand livable space, is inappropriate.

8.7 A new dormer should remain subordinate to the historic roof in size and detail.
- The size of a roof addition, including dormers, should be kept to a minimum and should be set back from the primary facade so that the original roof line and form is perceived from the street.

Policy: A roof-top addition should be subordinate in scale and character.
Policy: Some additions may have developed significance in their own right, and should be preserved.

Some changes to a building may be evidence of the history of the structure, its inhabitants and its neighborhood. Such changes may have developed significance in their own right, and this significance should be recognized and respected. For example, a porch or a kitchen wing may have been added to the original building early in its history.

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

8.9 A more recent addition that is not historically significant may be removed.
INTRODUCTION
Many historic structures were built during times when there was less knowledge of seismic design and building codes were less restrictive. Two major weaknesses occur in the load path of many historic houses. One is the absence of sheathed walls below the first story exterior walls. The other is the absence of an adequate foundation under those perimeter walls. The posts and their top and bottom connections provide very little resistance to horizontal forces caused by an earthquake. Without a bracing system, the posts will topple over and the house will collapse to the ground.

Sometimes wood bracing installed in an “X” or “V” shaped pattern may interconnect the existing posts. These braces are typically nailed or bolted to the top and bottom of each post. This type of bracing may have been used as part of a repair of previous earthquake damage or as an attempt to provide some earthquake bracing. Although this type of bracing does add some resistance when compared to posts without any braces, it has too little strength to prevent damage and possible collapse at this level when subjected to strong earthquake shaking.

However, today there are methods of reducing the risk of earthquake damage. If carefully planned and executed, these retrofitting techniques can upgrade the safety of the home, while at the same time be sensitive to the historic fabric of the house. By reinforcing such features as chimneys foundations, floors, ceilings, walls, columns and roofs, homeowners can improve the resiliency of their historic houses. This will ensure increased personal safety and protection of their investments.

The first step in retrofitting an historic house is to investigate the premises and identify its weak points and features that can be strengthened and reinforced. The local building inspection authority will determine the exact number and types of inspections needed during a retrofitting project. A pre-construction inspection may be needed to determine if a prescriptive method is appropriate or if conditions exist that need the services of an architect or engineer. Typically inspections are performed prior to pouring any concrete or grouting of any masonry. In addition, a framing inspection will be needed during which the nailing of any cripple wall sheathing, the proper installation of plate washers on sill bolts and the installation of hold-downs and other connections will be verified. A final inspection may also be necessary to determine that exterior weather protective surfaces have been properly installed over the new cripple walls.

Also, any design work should be completed by a licensed architect or engineer and be approved by the local building official. The solution should be consistent with the State Historic Building Code and City of Pasadena standards.

CHAPTER 9
Design Guidelines for Seismic Retrofitting
Policy: When retrofitting an historic structure to improve its ability to withstand seismic events, any negative impacts upon historic features and building materials should be minimized.

9.1 Execute seismic retrofitting of an historic building so that it has the least impact on the structure’s character.

- In general, the significant architectural features on the exterior of the building should remain unchanged on primary elevations plainly visible from public rights-of-way.
- Architectural features on secondary elevations of the building should be retained, stabilized and repaired, if possible.
- Building materials used in seismic retrofitting should be located on the interior and/or placed where they do not obscure significant architectural features.
- Preserving an ornamental detail or feature by bracing it is preferred over removing it. Brace a masonry chimney.

9.2 Exposed anchor bolts should not be used on qualified historic buildings.

- For non-historic buildings, exposed anchor bolts should not be used on primary elevations and elevations plainly visible from public rights-of-way.
- The exposed bolts on secondary elevations on non-historic buildings should be equally spaced.
- The plates should be turned at a consistent angle, and be painted to match the adjacent wall material or painted block.

9.3 Masonry infill of window and door openings (or round plates) should not be undertaken on qualified historic buildings or on primary elevations or those elevations plainly visible from the public right-of-way.

- Masonry infill of window and door openings on second elevations of non-historic buildings should be faced with material to match the surrounding wall material and be recessed from the plane of the exterior wall.
9.4 Existing parapets should not be removed.
- If rebuilding is necessary, however, the new parapet should be rebuilt back to its existing configuration and faced with salvaged masonry to match the existing facing material (unless the parapet is stuccoed).
- Parapet braces should not be visible on primary elevations or elevations plainly visible from public rights-of-way.

**FOR ADDITIONAL INFORMATION:**

- Eichenfield, Jeffrey. 20 Tools That Protect Historic Resources After an Earthquake; Lessons learned from the Northridge Earthquake. Oakland, CA. California Preservation Foundation. 1996.
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INTRODUCTION
Historically, a variety of site features appeared in residential neighborhoods in Pasadena. Wood fences and stone retaining walls sometimes defined property boundaries. Concrete sidewalks were popular and lined many streets. A variety of plantings, including trees, lawns and shrubbery also occurred. Each of these elements contributes to the character of the historic neighborhoods. They also added variety in scale, texture and materials to the street scene, providing interest to pedestrians.

Sidewalks & Walkways
Sidewalks are also historically significant elements that contribute to a neighborhood’s inviting atmosphere and provide spaces for walking and personal interaction. Historic photographs show that detached sidewalks, those separated from the street by a parkway, are traditional in many of Pasadena’s residential neighborhoods.

Walkways, which lead from the sidewalk to each house entry, often contribute to a sense of visual continuity on a block and convey a “progression” of walking experiences along the street. This progression, comprised of spaces between the street and the house, begins with a walkway that leads from the sidewalk; this is often in turn punctuated by a series of steps. This progression of spaces greatly enhances the street scene.

Parkways
Most streets in the historic districts have parkways, the bands of grass between the curb and the sidewalk. A parkway may contain a row of street trees if the parkway is wide enough. This coupling of parkways and street trees provides a rhythm along the block, as well as shade for pedestrians and should be continued.

In This Chapter:
- Sidewalks and walkways
- Fences
- Retaining walls
- Landscaping
- Lighting
- Driveways & parking
- Accessory structures
- Utilities

Fences
Originally, most properties did not have fences. When they were used, these fences were simple wood picket, wrought iron and wire. These fences were typically low to the ground and relatively “transparent” in nature, allowing views into front yards. Many times, stone and brick walls or hedges and other landscaping were used instead of fences.

Retaining Walls
Where stone retaining walls exist, they frequently align along the edges of sidewalks and help establish a sense of visual continuity in the neighborhood. These walls typically appear where houses must be located above the road surface due to steeper slopes.

Private Landscaping
Native and acclimated plant materials in residential landscapes significantly contribute to the sense of a setting that is part of the city’s heritage. While many “historic” plant materials have been replaced over time, some specimens do survive, and in other situations, the traditional planting pattern has been retained even if new plants have been installed. Plant materials should be used to create continuity among buildings, especially in front yards and along the street edge. Plants should be selected that are adapted to the Pasadena climate.
and that are compatible with the historic context. Where buildings are set back from the sidewalk, they typically have yards, walks and plant materials that all contribute to the sense of open space in the community. This character should be maintained as it plays an important role in establishing a context for the historic buildings.

**Street Trees**
Mature trees are also important historic elements. They often create borders between the street and the buildings and are important character-defining features of the districts. If possible, these trees should be retained; if their removal is necessary then replacement trees should conform to the planting pattern of the existing ones.

**Lighting**
Traditionally, lighting within a site was minimal. An occasional garden light was seen, but porch lights were usually the only exterior illumination. This tradition should be continued. Also, when new street lights are to be installed, they should be designed to be subtle and unobtrusive. A highly ornamental design for new street lighting that has not been documented or that invokes a false sense of history is not recommended.

**Driveways & Parking**
Historically, parking was an ancillary use which typically was located to the rear of a site. This tradition should be continued, and in all cases, the visual impacts associated with parking should be minimized. On-site parking, when necessary, should be subordinate to other uses and the yards should not be “parking areas.”

**Service Areas & Utilities**
New technologies in heating, ventilating and telecommunications have introduced mechanical equipment into historic areas where they were not seen traditionally. Whenever feasible, the visual impacts of such systems should be minimized so that one’s ability to perceive the historic character of the context is not significantly affected. Locating equipment so that it is screened from public view is the best approach.

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**Policy:** Sidewalks and Driveways should be compatible with the surrounding area.

Sidewalks, where they exist, are significant elements. Historically, detached sidewalks were seen throughout the city. The alignment of original sidewalks and driveways with the street and the overall neighborhood layout is of primary importance.

10.1 **Preserve significant sidewalk and driveway features.**
- Replace only those portions that are deteriorated beyond repair. Any replacement materials should match as closely as possible to the original in color, texture, size and finish.

This sidewalk shows a typical relationship between the sidewalk, parkway and the street.
10.2 When new sidewalks and driveways are to be installed, they should be compatible with the historic character of the streetscape.

- In residential areas, a sidewalk should be detached and separated from the curb with a parkway.
- A new sidewalk should align with those that already exist along a block.
- Scoring lines or “brushing” patterns should be consistent with those in the existing sidewalk.
- Using paving materials that are similar to those employed historically is preferred.

10.3 Maintain the established progression of public-to-private spaces.

- While most walkways are perpendicular to the sidewalk, some corner lots have walkways that are (approximately) 45 degrees from the street, and some walkways are even serpentine. The typical neighborhood tradition of walkways from the sidewalk to the house should be maintained.
- This includes a sequence of experiences, beginning with the “public” sidewalk, proceeding along a “semi-public” walkway, to a “semi-private” porch or entry feature and ending in the “private” spaces beyond.
In some instances, fences were a part of traditional construction in Pasadena. When used historically, fences were typically wood picket or wrought iron. Sometimes walls separated larger houses and lots from the public sidewalk. Most were relatively low in height and had a “transparent” character, allowing views into yards and providing interest to pedestrians.

10.4 Maintain the historic character of parkways.
  • Avoid replacing plant materials with hard and/or impervious surfaces. Consider using stepping stones if a walking surface is needed.
  • Protect established vegetation during construction to avoid damage.
  • Notify the City if damaged or diseased trees exist on site.

Policy: A fence should be in character with those used traditionally and relate to the principal structure on a lot.

In some instances, fences were a part of traditional construction in Pasadena. When used historically, fences were typically wood picket or wrought iron. Sometimes walls separated larger houses and lots from the public sidewalk. Most were relatively low in height and had a “transparent” character, allowing views into yards and providing interest to pedestrians.

10.5 Preserve original fences.
  • Replace only those portions that are deteriorated.
  • An historic wood fence should be protected against the weather with a painted or stained surface.
  • The preservation of fence designs that are integral to an architectural style is important. Square lattice fences and simple wire fences (stretched over wood posts and rails—not chain link as commonly used today) from the Arts and Crafts period are examples.
10.6 Where no fence exists keeping the yard open may be the best approach for a front yard.

10.7 Where a new fence is needed, it should be similar in character with those seen historically.
- A fence that defines a front yard or a side yard on a corner lot is usually low to the ground and “transparent” in nature.
- Traditionally fences were less than the permitted four feet. Therefore, consider a fence that is three feet in height.
- New fence design and materials that are similar to those used historically are appropriate.
- The design and materials of a new fence should be compatible with the character of the house and neighborhood.
- Solid walls or walls with decorative metal panels are not appropriate in most historic neighborhoods.
- Fence designs that incorporate a short masonry or concrete wall as the base of the fence is inappropriate.
- Masonry or concrete piers that are part of a fence design are not appropriate.

10.8 A combination of fencing and screening vegetation may be appropriate.
- Chain link, concrete block, un-faced concrete, plastic, fiberglass, plywood and mesh “construction” fences are inappropriate.
- Cast metal ornamentation and carriage lamps are inappropriate.
- A wood fence should be painted or stained.
Policy: An historic retaining wall should be preserved and new retaining walls should relate to those seen historically.

Retaining walls are sometimes used in areas where yards slope down to the street. These walls are important assets and should be preserved. New walls may also be considered in areas where they were used traditionally.

10.9 Preserve original retaining walls.
- On-going maintenance of existing retaining wall is recommended.
- Replace only those portions that are deteriorated beyond repair. Any replacement materials should match the original in color, texture, size and finish.
- If repointing is necessary, use a mortar mix that is similar to that used historically and match the original joint design.
- Painting an historic masonry retaining wall, or covering it with stucco or other cementious coatings, is not appropriate.
- Where an historic retaining wall collapses, rebuild it with the original materials when feasible.

In areas where steep slopes exist retaining walls are a common part of the streetscape.

The character of a sidewalk that is lined with relatively tall retaining walls is a unique experience in Pasadena.

Preserve original retaining walls.
10.10 Maintain the height of a retaining wall.
• Increasing the height of a historically significant retaining wall or adding a fence on top of it is inappropriate.
• Where privacy is an issue installing a low hedge atop a low wall that still allows views into a yard may be considered.

10.11 Reduce water pressure on a retaining wall by improving drainage behind it or by providing drains in the wall to allow moisture to pass through it.

10.12 For a new retaining wall, use materials similar to those seen historically.
• Natural rock or stone is recommended.
• A new retaining wall should be compatible in design and materials to the house and the district.
• Un-faced concrete, concrete block, log and railroad ties are not appropriate. Materials for retaining walls in most cases.
• New retaining walls should not exceed a height of one foot above the top of the lawn surface at the back of the wall.
• A new retaining wall should be less than four feet in height.
Policy: Plant materials should be used to create continuity among properties.

Plants should be selected that are adapted to the Pasadena climate and that are compatible with the historic context. Consideration also should be given to the future care and maintenance of these materials. While some variety in the landscaping is anticipated, the overall character should be in keeping with that seen historically.

10.13 Preserve historic landscape features.
• Existing historic landscape features, such as fences, sidewalks and trees, should be preserved, and should be protected during construction.
• Existing native plantings should be preserved in place. This particularly applies to significant trees and shrubs.
• Early gardens or formally planted areas should be preserved in place, when feasible.

10.14 In new landscape designs, use materials that are compatible with the historic property and neighborhood.
• Minimize the amount of hard surface paving for patios, terraces or drives in front yards.
• The tradition of landscaping located along structural elements (such as foundations, walkways and fences or walls) should be continued.
• Avoid planting too close to a structure that will damage architectural features or building foundations. This also can cause moisture retention against the structure.
• Garden ornaments and sculpture which are incompatible with the style, scale and materials of the building are not recommended.
10.15 **Use plant materials that are adapted to the Pasadena climate.**
- Use native, water conserving, and regionally appropriate landscaping.
- Group plants together with similar watering needs.
- The use of an automatic drip or low volume irrigation system to water shrubs and trees is encouraged.
- Minimize the amount of turf used in the landscape.
- Refer to the Pasadena Water & Power low-water use plant list (Water-Efficient Landscape Ordinance) to assist with selection.

10.16 **Maintain mature trees.**
- Native, specimen, and “Landmark” trees shall not be removed.
- If a tree is a safety hazard to the public because it is diseased, contact the Forestry Supervisor in the Parks and Natural Resources Section to acquire approval to remove the tree.
- Mature trees should not be removed unless the tree is dying, dead, diseased, or poses a safety hazard to the residents or the public.
- If a tree is cut down, and not removed in whole, the stump should be removed to ground level. At least one replacement tree, not less than 8 feet tall, of a similar kind should be replanted in its place, unless it would damage the house.
- Contacting the Forestry Supervisor in the Parks and Natural Resources Department is recommended.
- Replacement plant materials should be similar in size or equivalent massing to the plants removed (e.g., a cluster of smaller new trees may be used to establish a massing similar to one large original tree).

10.17 **Incorporate established plantings in new projects.**
- Removal of mature trees authorized by the Forestry Supervisor shall be replaced in kind with.
- Moving trees over 24-inches-DBH (diameter at breast height) will require an arborist report and approval from the Forestry Supervisor.
Policy: **Exterior lighting should be a subordinate element on a site.**

The character and level of lighting is a special concern of the community. Exterior lighting should be a subordinate element. Traditionally, exterior lights were simple in character. Most used incandescent lamps. These were relatively low in intensity and were shielded with simple shade devices. This overall effect should be continued.

10.18 Original lighting fixtures should be preserved, when feasible.
- Light fixtures that are original to a house or integral to an architectural style are examples of fixtures that should be preserved.
- Replace broken glass.
- Re-secure loose fixtures.
- Check electrical connections for exposed or damaged wiring. Replace as necessary.
- For historic metal fixtures, especially copper, be careful not to remove the finish or patina.
- If an historic light fixture is damaged beyond repair, then replacing it with a replica fixture is preferred.

10.19 New exterior lights should be simple in character and low in intensity.
- Lighting fixtures should be appropriate to the building in terms of style and size.
- Lights that cast a color similar to that of daylight and that have a low level of luminescence are preferred.

10.20 Minimize the visual impacts of site and architectural lighting.
- Unshielded, high intensity light sources are inappropriate.
- Where safety or security are a concern, the use of motion sensors that automatically turn lights on and off are appropriate.
- Do not wash an entire building facade in light.
- Avoid using more than one fixture to light the same area.

10.21 Prevent glare onto adjacent properties by using shielded and focused light sources that direct light onto the ground.
Policy: Parking areas and structures should have a positive visual impact as seen from the street.

When they were introduced, parking was an ancillary use and was located to the rear of a site. This tradition should be continued, and in all cases, the visual impacts of parking—which includes driveways, garages and garage doors—should be minimized. On-site parking should be subordinate to the house.

10.22 Avoid paved parking in the front yard.
• Paving for parking in the front yard is inappropriate in most cases.

10.23 Preserve an historic garage where it exists.
• Respect the character-defining features of an historic garage such as the primary materials, roof materials, roof form, window and door openings and any architectural details.
• Avoid moving an historic garage from its original location.

10.24 If an historic garage is beyond repair, then replacing it in-kind is encouraged.
• An exact reconstruction is not necessary in these cases.
• The replacement should be compatible with the overall character of the primary structure.

10.25 A new garage should not appear to dominate from the street.
• A garage should be subordinate to the primary structure on the site.
• A garage should be compatible in design with the primary structure. A new garage should also be seen as a new addition to the streetscape, it should not be designed to appear old.
10.26 A detached garage located to the rear of the property, and that is set back substantially from the house, is recommended.

• The material and detailing of a garage should be utilitarian but also be compatible with historic structures.

10.27 When a garage must be attached it should be on the rear elevation or the percentage of building front allocated to it should be minimized.

10.28 Use paving materials that will minimize the impact a driveway will have on a streetscape.

• Decomposed granite, pea gravel, exposed aggregate concrete, gravel or chip and seal are appropriate paving materials.

• Consider providing two paved driving strips (known as a “Hollywood drive”) with turf between the strips instead of large driveways.

• Large areas of paving are not appropriate.

• Plain asphalt or black top is discouraged.

• Use materials that are not impervious to water and will not create runoff into the street or onto adjacent properties.

10.29 When parking is not located in a garage, screen it from view from the public right-of-way.

• Consider using a fence, hedge or other landscape device.

• Also consider visual impacts on adjoining properties.

10.30 A replacement garage door, on an historic garage, should be similar to those seen traditionally.

• Elaborate or exuberant detailing is inappropriate.

• A replacement garage door should be of a design that complements the historic character of the garage or that is a simple design that does not detract from the historic garage or house. Wood clad garage doors are preferred.

• When necessary, an attached garage should be detailed as part of the primary building.

In some areas where steep slopes exist, or on corner lots, a detached garage may be located at or near the street edge.

Large areas of paving are not appropriate.
Policy: An accessory structure should be similar to those seen historically.

10.31 Locate an accessory structure to the rear of a lot.
- Locating an accessory structure to the side of a primary structure, but set back substantially may also be considered.

10.32 Construct an accessory structure that is subordinate in size with and similar in character to the primary structure.
- In general, accessory structures should be unobtrusive and not compete visually with the house. While the roof line does not have to match the house, it is best that it not vary significantly.
- An accessory structure should remain subordinate, in terms of mass, size and height, to the primary structure.
- Tuff Sheds® and other pre-manufactured storage structures that are out of character are discouraged.

10.33 An accessory structure should be similar in character to those seen traditionally.
- Basic rectangular forms, with hip, gable or shed roofs, are appropriate.

10.34 Maintain the traditional range of building materials on accessory structures.
- Appropriate siding materials for accessory structures include: unpainted or stained wood siding, wood planks, vertical board and batten siding or corrugated metal.
- These materials should be utilitarian in appearance. The use of muted, natural colors and finishes is particularly encouraged.

10.35 Maintain the simple detailing found on accessory structures.
- Ornate detailing on accessory structures is inappropriate.
- Avoid details that may give an accessory structure a residential appearance. New accessory structures should not mimic primary structures.
Policy: **Utilities should be placed such that their visual impacts are minimized.**

Utilities that serve properties may include telephone and electrical lines, gas meters, air conditioners and telecommunication systems. For new construction, adequate space should be planned in a project from the outset and should be designed such that visual impacts are minimized.

10.36 Minimize the visual impacts of utilities and service equipment.
- Provide adequate space for utilities. They should not simply be put into “left over” space that abuts the public right-of-way.
- Locate utilities at the rear or sides of a property and screen them with landscaping if visible from the public right-of-way.
- Vents for direct-vent fireplaces should not be installed on the building front.
- Window air conditioning units or condenser elements should be located where they are not visible on a front facade.
- Any utility device should have a matte or non-reflective finish.

10.37 Avoid placing equipment on a roof.
- If mechanical equipment must be placed on the roof, locate it at the back of the building to minimize impacts on the front facade.

10.38 Solar devices should not block views or be placed where they are visible from the public right-of-way.
- If attached to the building, solar devices should lay flush with the roof line.
- If not attached to the building, collectors should be located only in the side and rear yards. Exposed hardware, frames and piping should have a non-reflective finish.
- Collectors not attached to the building should be screened by landscaping.

10.39 Screen a satellite dish from view.
- Use landscaping to screen a satellite dish that is mounted on the ground.
- A small satellite dish should be located away from the front of a structure.
CHAPTER 11

DESIGN GUIDELINES FOR INFILL AND ALTERATIONS TO NON-CONTRIBUTING STRUCTURES

Rather than imitating older buildings, a new structure should relate to the design characteristics of an historic district while also conveying the stylistic trends of today. New construction may do so by drawing upon some basic building features—such as the way in which a building is located on its site, the manner in which it relates to the street and its basic mass, form and materials—rather than applying detailing which may or may not have been historically appropriate. When these design variables are arranged in a new building to be similar to those seen traditionally in the area, visual compatibility results. Therefore, it is possible to be compatible with the historic context of the neighborhood while also producing a design that is distinguishable as being newer than the historic buildings of the area.

Some people may be confused about this concept; for many, the initial assumption is that any new building in an historic district should appear to be old. On the contrary, the design guidelines that follow encourage new buildings that can be distinguished as being of their own time. At the same time, they do promote new building designs that would relate to the more fundamental similarities of the neighborhood. Some of the Basic features are described below.

Building Alignment & Orientation
A front yard serves as a transitional space between the “public” sidewalk and the “private” building entry. In many blocks, front yards are similar in depth, resulting in a relatively uniform alignment of building fronts which contributes to the sense of visual continuity. Maintaining the established range of setbacks is required by the City.

Traditionally, a building also had its primary entrance oriented to the street. This helped establish a “pedestrian-friendly” quality, which encouraged walking. This characteristic should be main-

In This Chapter:
- Building alignment & orientation
- Mass & scale
- Building & roof form
- Building materials
- Architectural details
- Windows & doors
- Accessory structures

tained where it exists. Locating the entrance of a new building in a manner that is similar to those seen traditionally is a means of doing so.

Mass & Scale
The mass and scale of a building is also an important design issue. Similarities in scale among prominent building features, such as porches and windows, are also important. In many cases, earlier buildings were smaller than current tastes support; nonetheless, a new building should, to the greatest extent possible, maintain the established scale of the neighborhood. While new buildings and additions are anticipated that may be larger than many of the earlier structures, this new construction should not be so dramatically greater in scale than the established context that the visual continuity of the neighborhood would be compromised.

Many early buildings were also constructed similar in width to nearby structures. This furthered the relatively uniform scale for the neighborhood. In such a case, the perceived width of a new building should appear similar in size to that of historic buildings in the neighborhood in order to help maintain this sense of visual continuity. For example, if a new building would be wider than those seen historically, it should be divided into modules that appear similar in width to traditional buildings.
Building & Roof Form
The form of a building is a major feature of buildings in an historic district. When repeated along the street, the repetition of similar building and roof forms also contributes to the sense of visual continuity. In each case, the roof pitch, its materials, size and orientation are all important to the overall character of the building. In order to maintain this sense of visual continuity, a new building should have basic roof and building forms that are similar to those seen traditionally. Overall facade proportions also should be in harmony with the context.

Materials
Building materials of new structures should contribute to the visual continuity of the neighborhood. They should appear similar to those seen traditionally to establish a sense of visual continuity.

Architectural Details
Historic photographs demonstrate that a wide variety of architectural details were used to "personalize" individual buildings and give interest to the street. Some structures had simple, vernacular details for window and door mouldings and cornices. Others were more elaborate, with cornices, deeply projecting mouldings, bay windows and ornamental accents. Even so, architectural details were subordinate to the simple, rectangular building forms themselves.

Windows & Doors
The similarity of window and door sizes and location contributes to a sense of visual continuity along the street. In order to maintain this sense of visual continuity, a new building should maintain the basic window and door proportions and placement seen traditionally in the neighborhood.

A typical building appeared to be a rectangular solid, with small holes “punched” in the walls for windows and doors. Most buildings had similar amounts of glass, resulting in a relatively uniform solid-to-void ratio. This ratio on a new building, the amount of facade that is devoted to wall surface, as compared to that developed as openings, should be similar to that of historic buildings within the neighborhood.

Accessory Structures
Accessory structures include garages, carriage houses, barns, sheds and guest houses. Typically, these were smaller, utilitarian structures located to the rear of a lot. The tradition of accessory structures is an important aspect of residential development in Pasadena, and is encouraged in new construction as a way to minimize the total mass and scale of building(s) on a site.
Policy: **Maintain the pattern in which buildings relate to the street.**

In many blocks, front yards are similar in depth, which contributes to a sense of visual continuity. Maintaining this line is preferred. Typically a house should also be designed to face the street and be sheltered by a porch or other entry element. This helps to establish a sense of scale.

11.1 **A building may be moved into a district if it maintains a sense of architectural unity with existing buildings in the district.**

11.2 **A building should fit within the range of yard dimensions seen in the block.**
   - The front yard setback should match the established range of adjacent buildings.
   - Where the setbacks are uniform, a building should be placed in general alignment with its neighbors.
   - See also the zoning requirements for the City of Pasadena.

11.3 **Maintain the spacing of side yards.**
   - Side yard setbacks should be similar to others in the block, as seen from the street.

11.4 **In some areas, setbacks vary, but generally fall within an established range.**
   - A greater variety in setbacks is appropriate in this case, but a building should be located within the average setback.
   - See also the zoning requirements for the City of Pasadena.

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The front yard setback of a new building should match the established range of adjacent buildings.
11.5 Orient the front of a house to the street and clearly identify the front door.
- A prominent entry will contribute to the "pedestrian-friendly" character of the street.
- Use a porch element to define the entry.
- Although some buildings were raised a few feet traditionally, a first floor or entrance that is raised an entire story—to accommodate a garage—is inappropriate.

11.6 Design a porch to be similar to those seen historically.
- A new porch should not visually overwhelm the primary facade.
- Use materials similar to those seen historically. Wood balustrades and porch posts (sometimes with brick piers) were most common. Concrete porch decking was also a traditional part of a residential porch.

11.7 Porch posts or columns should be of a substantial enough size that the porch does not appear to float above the entry.
- Wood, brick or stone columns are best for most structures in the neighborhood. A stucco finish on the columns may also be considered.
Policy: A building should reinforce a sense of human scale in the neighborhood.

The mass and scale of buildings are important design issues in an historic district. The traditional scale of single family houses dominates much of the neighborhood, which enhances the "pedestrian-friendly" character of the streets. To the greatest extent possible, new construction should maintain this human scale. While new buildings are anticipated that may be larger than many of the early houses, this new construction should not be so dramatically larger that the visual continuity of the neighborhood is compromised.

11.8 Buildings may convey a sense of human scale by employing techniques such as these:
• Use building materials that are of traditional dimensions.
• Provide a one-story porch that is similar in size to those seen traditionally.
• Use a building mass that is similar in size to those seen traditionally.
• Use window openings that are similar in size to those seen traditionally.

11.9 A building should appear similar in mass and scale to that of single family structures seen traditionally in the neighborhood.
• Subdividing a larger building mass into smaller "modules" that are similar in size to buildings seen traditionally is encouraged.
• Other, subordinate modules may be attached to the primary building form.

11.10 A front elevation should appear similar in scale to those seen traditionally in the block.
• Stepping a building down in height as it approaches smaller structures on adjacent lots is encouraged.
• Where the immediate context dictates, the front should include a one-story element, such as a porch.
• A single wall plane should not exceed the typical maximum width as seen in the immediate context.
Policy: The height of a building should be similar to that of houses found traditionally on the block and in the neighborhood.

Policy: Building and roof forms should be similar to those seen traditionally.

The character of a building and roof is a major feature of buildings. When repeated along the street, this contributes to the sense of visual continuity. This should be maintained.

11.11 A building should be within the range of heights seen traditionally in the neighborhood.
   • Maintaining a consistency of building height will contribute to the visual continuity of the streetscape.

11.12 Wall heights of one to two stories are preferred along the street.
   • The back side of a building may be taller than the front and still appear to be in scale.

11.13 Simple rectangular building forms are preferred.
   • “Exotic” building forms that would detract from the visual continuity of the streetscape are discouraged.

11.14 Sloping roofs such as gable and hipped roofs are appropriate for primary roof forms.
   • Shed roofs are appropriate for some porch additions.
   • Flat roofs also appeared traditionally in Pasadena, and may be considered in new construction.
Policy: Building materials should appear similar to those used traditionally in the neighborhood.

Building materials of new structures should contribute to the visual continuity of the neighborhood. They should appear similar to those seen traditionally to establish a sense of visual continuity.

11.15 Use building materials that contribute to the traditional sense of scale and that reinforce the sense of visual continuity in the neighborhood.

11.16 Wood siding is appropriate in most applications.
- Wood siding should have lap dimensions similar to that seen historically.
- Wood shingles may also be considered if integral to an architectural style.
- All wood siding should have a weather-protective finish.
- Use of highly reflective materials, such as glass or polished metal, is inappropriate as a primary building material.

11.17 The use of masonry that appears similar in character to that seen traditionally is also appropriate.
- Brick should have a modular dimension similar to that used traditionally.
- Stone and stucco, similar to that used traditionally, is also appropriate.

11.18 New materials that are similar to traditional materials may be considered.
- Alternative materials should appear similar in scale, proportion, texture and finish to those used traditionally.
- They also should have a proven durability in the Southern California climate.

11.19 Roof materials should be composite shingles and convey a scale and texture similar to those used traditionally.
- Typically roof materials should be earth tones and have a matte, non-reflective finish.
- Tile may also be considered on building styles which incorporate this material.
Policy: The use of architectural details that add visual interest to the street is encouraged.

Projecting elements such as dormers, bays, chimneys and cornices help to provide visual interest to a building and can influence its perceived scale. These features should be included in the design of a new building and should be similar in size, shape and type with those found historically.

11.20 New interpretations of traditional building styles are encouraged
- A new design that draws upon the fundamental similarities among historic buildings in the community without copying them is preferred. This will allow them to be seen as products of their own time yet compatible with their historic neighbors.
- The exact copying or replication of historic styles is discouraged.

11.21 Building components should be similar in scale to those used historically.

11.22 Avoid architectural details that confuse the history of an historic district.
- Use ornamental details with constraint.
- Historical details that were not found in Pasadena are inappropriate.
- Elaborate “Victorian” ornamentation, which is atypical in Pasadena, is discouraged.
- Other styles that would also be misleading about the history of Pasadena are inappropriate.

11.23 Maintain the alignment of horizontal elements along the block.
- Window sills, moldings and eave lines are among those elements that should align whenever possible with similar elements on adjacent historic properties.
Policy: Windows and doors should be used in a manner similar to those seen traditionally.

Windows and doors are some of the most important character-defining features of houses. They give scale to buildings and provide visual interest to the composition of individual facades. Distinct window design often defines an historic building style. Usually they are inset into openings or they have surrounding casings and sash components which have substantial dimensions. Because windows so significantly affect the character of a house, their design is a very important consideration.

11.24 Windows and doors should be of a traditional size and should be placed in a similar solid-to-void relationship as historic buildings in a district.
- Windows should be simple in shape, arrangement and detail.
- Unusually shaped windows, such as triangles and trapezoids may be considered as accents only.
- The number of different window styles should be limited.

11.25 Windows and doors should be finished with trim elements similar to those used traditionally in a district.
- This trim should have a dimension similar to that used historically.

Preferred

Inappropriate

The historic relationship of solid building wall to window openings should be maintained in new construction.

Too much glass on the primary facade of this infill building is inappropriate.
SECTION IV

HISTORIC DISTRICTS

This section presents the following topics:

Chapter 12: Historic Districts in Pasadena 101
Chapter 13: Bungalow Heaven Landmark District 103
Chapter 14: Garfield Heights Landmark District 107
Chapter 15: Prospect Historic District 111
Chapter 16: Orange Heights Historic District 115
Chapter 17: Lower Arroyo Seco Historic District 119
Chapter 18: Arroyo Terrace Historic District 123
INTRODUCTION

Chapter 2.75 of the Pasadena Municipal Code provides for the protection of locally designated Landmarks and Landmark Districts through a design review process. The City also recognizes that properties listed in the National Register Historic Districts are significant historic resources to the city and they should receive protection under the local ordinance.

By contrast, the local designation process is established through police powers in the Municipal Code of Pasadena. Criteria for designation are set forth in the code and designated properties are subject to protections also outlined in the ordinance. Currently, the City of Pasadena has two locally designated historic districts: the Bungalow Heaven Historic District and Garfield Heights Historic District.

However, it is important to distinguish the City’s designation of Landmarks and Landmark Districts through its local ordinance process from designation to the National Register of Historic Places. The National Register is a list of sites and properties of historic significance. Properties so listed may have national significance, but they may also be listed if they are determined to have significance at a state or local level. The National Register is administered by the National Park Service and nominations are submitted through the State of California Office of Historic Preservation, using criteria adopted by the Secretary of the Interior. Properties listed in the National Register, are only protected from federally-funded projects which might harm or alter the historic character. Such federal projects must be reviewed for their potential impact. Unless a property listed in the National Register has specific protection under a local ordinance, alterations are not reviewed.

While all of the design guidelines in chapters 5 through 12 apply to all historic districts—both locally designated and those listed in the National Register—each neighborhood also has its own chapter that presents a brief history of development, a summary of the design characteristics and the neighborhood’s design goals. This information draws upon comments from area residents in public meetings and also include information prepared by community residents, city planning staff and design consultants.
CHAPTER 13

The Bungalow Heaven Landmark District

INTRODUCTION
This chapter presents an historic overview of the Bungalow Heaven Landmark District, as well as a summary of the character-defining characteristics and design goals for infill construction.

Designing a building to fit into the context of a neighborhood requires careful thought. First, it is important to realize that while the historic district conveys a certain sense of time and place associated with its history, it also remains dynamic, with alterations to existing structures and construction of new buildings occurring over time.

HISTORIC DISTRICT BACKGROUND
Pasadena’s Bungalow Heaven Landmark District is bounded by Orange Grove Boulevard, Mentor, Washington Boulevard and Chester. The principal streets of the district run north-south, rising slowly up the slope of the Sierra Madre foothills from Orange Grove Boulevard to Washington Boulevard. The east-west cross streets generally have less continuity, smaller lots and more modest houses.

Houses from all periods of Pasadena’s history may be found in Bungalow Heaven, but the majority are California Craftsman bungalows built between 1906 and 1914. Another major build up occurred between 1920 and 1923 reflecting the revival styles associated with the period. A few Victorian era houses can also be found, mostly in the southwest part of the neighborhood, closer to the original city. Houses from the 1930s and 1940s, as well as some more contemporary houses, are scattered on a few lots that remained vacant after the major period of development.

Pasadena’s Bungalow Heaven neighborhood was built up predominantly in the short period between 1906, when the area was annexed to the city, and 1914, at the outbreak of World War I. It paralleled a period of rapid growth in the city’s population, which more than quadrupled, from 10,000 in 1900 to 45,000 in 1920. Pasadena’s tremendous population growth had been largely encouraged by local boosters, especially the Pasadena Board of Trade, who published literature touting Pasadena...
as America’s ideal residential city. Located on the northeastern edge of the original city, the neighborhood developed from orchards and fields to thickly built bungalows on 50-foot lots. By 1920 it was served by street-car lines on Lake Avenue, Washington Boulevard and Villa Street.

Builders bought large tracts of land in the neighborhood from large landowners such as T.R. and Sarah Cooley, whose house stood on present-day McDonald Park; J.R. Veach, an early settler who owned land on Wilson Avenue; and Mrs. Jennie Keil, whose house on Mentor Avenue is the oldest in the neighborhood. These builders, some of whom undoubtedly employed good designers, created the look of the neighborhood. Some of the builders or designers, including: James Gaut, G.S. Bliss, Edward Zube, J.H. Woodworth, George P. Telling, H.C. Deming, Henry McKeen, and the Coast Construction Company, created minor masterpieces of bungalow design. Very few houses, with the exception of a few by Norman Foote Marsh on Mar Vista and scattered others, are credited to an architect. Nevertheless, the overall quality and variety of design within a specific vocabulary are, on the whole, remarkable. The bungalows of this neighborhood stand as a collection of examples of a regional architecture which was nationally recognized. While examples of the style exist elsewhere in the city, the coherence and integrity of this neighborhood make it a significant resource for the city and the nation.

**Architectural Styles**

The following list represents the many different architectural styles, types and forms represented in the neighborhood. For more information regarding the development of or the character-defining features of these architectural styles, consult *Chapter 2: Pasadena’s Architectural Styles.*

- California Bungalow Style
- Victorian Period cottages
- Tudor/English Cottage Revival Style
- Spanish Colonial Revival/Spanish Eclectic Style
SUMMARY OF KEY CHARACTERISTICS

Key design characteristics of this historic district include:

• Modest one or one-and-one half story bungalows dominate the district
• Detached garages located to the rear of a lot
• Low-scale open porches facing the street
• Building setbacks are the same along a block, but vary from street-to-street
• Detached sidewalks and street trees line the streets

DESIGN GOALS

The Bungalow Heaven Landmark District should continue to develop in a coordinated manner so that an overall sense of visual continuity is achieved. Preservation of the integrity of this area is a primary goal of the Historic Preservation Commission.

The design goals for the Bungalow Heaven Landmark District are:

• Maintain and preserve the historic and architectural qualities of the district through review of restoration, alteration and new construction.
• Eliminate unnecessary demolition, destruction, and neglect of buildings in the district.
• Guide new construction so that it is compatible with the scale, style and character of the district.
• Preserve the environmental setting of the district by encouraging the retention of open front yards or designing fences that are in character with the historic buildings in the district.
• Recognize the importance of the diverse characteristics of each individual architectural design, especially on the front elevations, in the district.
VIEWS FROM AROUND THE HISTORIC DISTRICT
In 1881, John H. Painter and Benjamin F. Ball, farmers from Iowa who had come to Southern California looking for investment, bought 2,000 acres in what is now North Pasadena between Lake Avenue and the Arroyo. Considering the area suitable for development, they purchased the land and water rights for $15 per acre, or a total of $30,000. The Garfield Heights neighborhood is Block R of the Painter and Ball Tract. Painter and Ball spent another $20,000 laying out the streets and developing the water supply. After forming an organization called the “North Pasadena Land and Water Company” they sold the land for $50 to $100 per acre to fifty or sixty purchasers, for a total of $150,000. Their timing was perfect; the arrival of a network of railroads brought a large influx of emigrants to the area between 1886 and 1888. The Painter and Ball holdings were just north of one of the most popular of Southern California’s new communities: Pasadena.

The Garfield Heights Subdivision was created in October of 1904 at the time of annexation of the area by the City of Pasadena. It included 76 lots. Annexation of the Garfield Heights Subdivision and many others was discussed for many years before it occurred in 1904. While residents of the area were strongly divided over annexation, the voters were very much in favor of it. Following annexation, development in what became known as North Pasadena shared in the quickening of Pasadena’s development. Citrus groves and fields gave way to homes on 50 to 60 foot wide lots as Pasadena’s population quadrupled during these years.
The vast majority of the residences in the neighborhood were not architect-designed or the work of a syndicate working on one block. Instead, they were vernacular buildings constructed by a building contractor or the homeowner. Typically one story, wood frame, either clapboard or stucco, with hipped or gable roofs and a variety of front porch types, these small houses were the most common type of structure through out Southern California from 1880 to 1935. Still possessing some individuality, these houses were the homes of generations of working and middle class citizens.

Fay Place was developed in 1925, creating a quaint one-block development of an architectural style and ambiance distinct from the rest of the neighborhood. The one block cul-de-sac was developed by Edward J. and Michael Fay, Certified Public Accountants and owners of the Fay & Fay firm.

Residential development in Garfield Heights included not only single-family homes, but also a small number of multifamily types such as duplexes and four unit complexes. Although these multifamily structures are slightly larger, they maintain the setback of their single-family neighbors. The fenestration patterns, roof shapes, landscaping, building materials and architectural styles also remain the same.

Architectural Styles

The following list represents the many different architectural styles, types and forms represented in the neighborhood. For more information regarding the development of or the character-defining features of these architectural styles, consult Chapter 2: Pasadena’s Architectural Styles.

- Queen Anne Style
- California Bungalow Style
- Spanish Colonial Revival/Spanish Eclectic Style
- Colonial Revival Style
- Tudor/English Cottage Revival Style

Summary of Key Characteristics

Key design characteristics of this historic district include:

- Use of river rock
- Diversity of architectural styles
- Tree-lined streets (oaks, ornamental elms and palms)
- Detached garages located to the rear of a lot and accessed by a long driveway
- Uniform building set backs
DESIGN GOALS
The Garfield Heights Landmark District should continue to develop in a coordinated manner so that an overall sense of visual continuity is achieved. Preservation of the integrity of this area is a primary goal of the Historic Preservation Commission.

The design goals for the Garfield Heights Landmark District are:
- Promote community pride and unity by recognizing that the area is important as a historic resource.
- Preserve and enhance the historic character and architectural integrity of the district by educating homeowners and others about appropriate restoration, alteration and design of new construction and by discouraging demolition, destruction, and neglect of historic buildings.
- Protect the single-family character of the neighborhood.
- Retain existing detached rear yard garages and encourage construction of new garages that are detached and sited at the rear of the property.
- Repair and maintain existing river rock retaining walls.
VIEWS FROM AROUND THE HISTORIC DISTRICT
CHAPTER 15

The Prospect Historic District

Introduction
This chapter presents an historic overview of the Prospect Historic District, as well as a summary of the character-defining characteristics and design goals for infill construction.

Designing a building to fit into the context of a neighborhood requires careful thought. First, it is important to realize that while the historic district conveys a certain sense of time and place associated with its history, it also remains dynamic, with alterations to existing structures and construction of new buildings occurring over time.

Historic District Background
The Prospect Historic District encompasses two of Pasadena's earliest exclusive subdivisions, the Prospect Park and Arroyo Park Tracts. Both of these subdivisions were developed during the first two decades of the twentieth century, coinciding with the Arts and Crafts Movement in California.

The gently curving streets, attractive landscaping and generously apportioned parcels reflect both the Craftsman emphasis on nature and the gracious lifestyle of the early Pasadena upper class. The landscaping, especially the camphor street trees, represents the single most important unifying element in the district. The vegetation, now mature, ties together a wide variety of residential architectural styles. The homes in the neighborhood represent the work of a number of the region's finest architects and master builders, many important in the development of the city during the first quarter of the twentieth century. Works by nationally famous architects are also located in the district. The houses have been well-maintained with their original character preserved, although rear rooms and swimming pools have been added.

Development of Prospect Park, the older southern tract, began in 1904, with the purchase of the 32-acre old Cooly Tract by three prominent Pasadena businessmen, J.C. Brainerd, Nyles Eaton, and John C. Bentz. Surveyed in February of 1906 by the Allen Brothers, and officially recorded on May 4, 1906, the subdivision included 64 spacious lots, averaging 80 feet wide by 150 feet deep. These lots were laid out along wide (60 feet) curved streets. Although the gentle curve of Prospect Boulevard reflected the curve of the adjacent Salt Lake and Los Angeles Railroad spur, the placement of the streets and individual parcels convey the general feeling that they were designed to respond to the natural irregularity of the neighborhood. The developers further enhanced the vast arid site along the Arroyo Seco by planting camphor and palm trees along the streets. Now mature, the trees provide a continuous arbor which both cools the local microclimate as well as ties the area's diverse mixture of residential styles together. The developers further distinguished the tract by the placement of river boulder and clinker brick gate posts at the entrance to Prospect off of Orange Grove Boulevard.

The more recent Arroyo Park Tract, surveyed in November of 1910 by L.A. Bartlett, was officially recorded on February 24, 1911. The subdivision was originally developed by the Arroyo Park Corporation, composed of Frank G. Morgan, Frank H. Long, and Minnie S. Chapman. The 60-foot lot subdivision, which employed the same elements of design and quality as Prospect Park, was clearly intended as an extension of the already success-
ful southern tract. This connection is evidenced in the following excerpt from a 1913 promotional brochure for Prospect Park:

“On the north, connected with Prospect Park by a concrete bridge, is the new Arroyo Park Tract, now being improved, with building restrictions similar to those in Prospect Park. These new restrictions...guarantee the purchaser of a home in Prospect Park a strictly first class environment.”

Arroyo Park has the same generous lot sizes, mature street trees (also camphor), and wide curving streets of the southern tract. The curving streets, however, are purely for aesthetic reasons in Arroyo Park as this tract is sited on a relatively flat blufftop location.

Due to the continued economic stability of the area, the houses have been well-maintained and alterations have been minimal. Along with the diversity of architectural styles, the character of the Prospect Historic District is reflected in the high-quality of design and construction of individual residences. The list of participating architects and master builders forms a virtual who’s who of the region’s finest. Undoubtedly the most famous architects represented are Charles Greene and Henry Greene, Alfred Heineman and Albert Heineman, and Frank Lloyd Wright, whose innovative designs influenced architecture far beyond Pasadena.

Architectural Styles
The following list represents the many different architectural styles, types and forms represented in the neighborhood. For more information regarding the development of the character-defining features of these architectural styles, consult Chapter 2: Pasadena’s Architectural Styles.

- Queen Anne Style
- California Bungalow Style
- Spanish Colonial Revival/Spanish Eclectic Style
- Colonial Revival Style
- Tudor/English Cottage Revival Style
- Mid-Twentieth Century Modern Period

Summary of Key Characteristics
Key design characteristics of this historic district include:

- Canopy trees (camphor) along Prospect Boulevard
- Large homes on large lots
- Diversity of architectural styles, with some architect designed residences

Design Goals
The Prospect Historic District should continue to develop in a coordinated manner so that an overall sense of visual continuity is achieved. Preservation of the integrity of this area is a primary goal of the Historic Preservation Commission.

The design goals for the Prospect Historic District are:

- Ensure that additions to existing historic buildings are compatible in size, scale, materials and character.
- Preserve the existing front and/or visible elevations by placing new additions on secondary elevations.
- Preserve existing historic garages, auxiliary buildings and significant landscape features.
- Restore and maintain the piers at the entrance to Prospect Boulevard from Orange Grove Boulevard.
- Inform property owners of historic preservation design procedures and guidelines.
VIEWS FROM AROUND THE HISTORIC DISTRICT
VIEWS FROM AROUND THE HISTORIC DISTRICT
INTRODUCTION

This chapter presents an historic overview of the Orange Heights Historic District, as well as a summary of the character-defining characteristics and design goals for infill construction.

Designing a building to fit into the context of a neighborhood requires careful thought. First, it is important to realize that while the historic district conveys a certain sense of time and place associated with its history, it also remains dynamic, with alterations to existing structures and construction of new buildings occurring over time.

HISTORIC DISTRICT BACKGROUND

The Orange Heights Historic District is a residential area originally developed as part of the Orange Heights and Barnhart tract subdivisions. The district is roughly bounded by North Los Robles and North El Molino Avenues and Jackson and East Mountain Streets. Of the district's buildings, almost 80 percent of the buildings are contributing resources—primarily Craftsman residences constructed in the mid-1900s through the early-1920s. The district has one of the finest collections of these buildings in the City. The district is complemented by a distinctive streetscape with northern vistas of the San Gabriel Mountains, elevated lots, generous, uniform, landscaped building setbacks, Arroyo stone and concrete retaining walls, and closely-spaced rows of mature street trees. Very few of the buildings have been significantly altered and the streetscape remains intact; the district is largely unchanged from its appearance during its period of significance (circa 1885-1935).

Fifty-five of the contributing buildings included in the district illustrate the development of, as well as the variety within, Craftsman architecture. Besides many examples of the mature Craftsman style, there are early transitional examples which share characteristics with turn-of-the-century styles and late examples with characteristics of the 1920s to 1930s Period Revival styles. Both modest bungalows and more sophisticated examples of the Craftsman style are represented, including four examples of the two-story chalet and two of the “airplane” bungalow variations.

In addition to the Craftsman-influenced properties, the district also includes 25 contributing buildings (many of which have Craftsman elements) representing other styles popular during the period of significance. These include two Victorian-era buildings which predate the 1906 subdivision of the Orange Heights tract. Six are turn-of-the-century buildings, one with Queen Anne and five with transitional characteristics. One building shows the influences of the Prairie style. Fifteen are examples of the 1920s to 1930s Period Revival styles, predominantly of the Tudor Revival, Colonial Revival and Spanish Colonial Revival styles. The district also includes an early California Ranch.
Seventeen buildings (fifteen residences and one two-building bungalow court), many of which are side-by-side, were constructed by noted Craftsman builder D. M. Renton—the largest collection of his buildings in the City. George F. Thompson, the developer of the Orange Heights tract, also constructed several buildings in the district. The work of other locally significant architects and builders is also represented, including: architects Cyril Bennett, Sylvanus B. Marston, Glenn Elwood Smith, and Theodore Pletsch; and builders Will A. Taylor, Henry C. Deming, C. M. Hansen, and L. C. Williams. Also, the district includes the “Little Cloister” (a City landmark), the only known Pasadena building designed by Southern California architect Irving Gill.

The district encompasses five one-block-long streets, which discourage through-traffic and terminate street vistas. While the district is visually cohesive on the whole, each street has its own distinctive identity. Jackson Street is the primary east-west street, terminated by North Los Robles and El Molino Avenues (Jackson Street continues, unaligned, west of Los Robles Avenue), and is the only true through-block street. North Oakland (originally Ruby Street, then Galena Street) and North Madison Avenues are both north-south streets terminated by Jackson and Mountain Streets, with dramatic views of the San Gabriel Mountains on the northern vista as grade rises to the foothills. Herbert Street and Thompson Drive (originally Walnut Drive), which have more modest buildings than the other streets, are short, narrow, internal streets connecting the two north-south avenues. The district also has two intra-block service alleys, Elgin and Leighton Alleys.

The district streetscape includes: closely-spaced rows of mature street trees; wide grass parkways; concrete curbs, gutters, and sidewalks; arroyo stone and concrete (often scored) retaining walls; and landscaped, continuous, uniform building setbacks and side yards. Corner lots have unusual corner entry stairs with Arroyo stone planters, ledges, and piers (originally for gas lanterns—one pair remains at 1034 North Madison Avenue). Mature street trees are: bottle trees, oaks, and jacarandas on Jackson Street (with large palms on several lots on the north side of the street indicating an earlier rows of trees); bottle trees and oaks on North Madison Avenue; two rows of Canary Island palms on North Oakland Avenue; and Mexican fan palms, windmill palms, camphors, and magnolias on Herbert Street. Thompson Drive is a narrow street without street trees, curbs, or sidewalks. A few early concrete address curb markers, apparently from the 1900s to the 1920s, remain in the district on North Madison and North Oakland Avenues.

The boundaries of the district include only the properties of the original Orange Heights and Barnhart tracts fronting the internal streets. While also including lots from these original tracts, properties on the surrounding thoroughfare streets—North Los Robles Avenue, El Molino Avenue, and Mountain Street—are non-contributing due to alterations and newer development that diminishes the visual character of the district. A few of the corner buildings within the district are non-contributing but have been included in the district because of significant streetscape features which contribute to the district.

**Architectural Styles**

The following list represents the many different architectural styles, types and forms represented in the neighborhood. For more information regarding the development of or the character-defining features of these architectural styles, consult Chapter 2: Pasadena’s Architectural Styles.

- Queen Anne Style
- Tudor/English Cottage Revival Style
- Colonial Revival Style
- Spanish Colonial Revival/Spanish Eclectic Style
- English Arts and Crafts Style
- Prairie Style
- California Bungalow Style
- Chalet Style
- California Ranch Style
SUMMARY OF KEY CHARACTERISTICS

Key design characteristics of this historic district include:
• Very large lots along Jackson Street
• Uniform setbacks
• Open character of front yards
• A great “walking” neighborhood
• Use of retaining walls, both Arroyo stone and concrete
• Views to the surrounding mountains
• Diversity of building sizes
• Some alleyways

DESIGN GOALS

The Orange Heights Historic District should continue to develop in a coordinated manner so that an overall sense of visual continuity is achieved. Preservation of the integrity of this area is a primary goal of the Historic Preservation Commission.

The design goals for the Orange Heights Historic District are:
• Restore and preserve houses in the district, including replacement of inappropriate non-historic windows and doors and restoration of original siding materials.
• Educate property owners about appropriate repair and rehabilitation and guidelines for compatible additions.
• Preserve and maintain existing river rock retaining walls and stairs from sidewalks to front yards.
• Preserve the environmental setting of the district by encouraging the retention of open front yards or designing fences that are in character with the historic buildings in the district.
• Recognize the importance of the diverse characteristics of each individual architectural design, especially on the front elevations, in the district.
VIEWS FROM AROUND THE HISTORIC DISTRICT
The Lower Arroyo Seco Historic District

Introduction
This chapter presents an historic overview of the Lower Arroyo Seco Historic District, as well as a summary of the character-defining characteristics and design goals for infill construction.

Designing a building to fit into the context of a neighborhood requires careful thought. First, it is important to realize that while the historic district conveys a certain sense of time and place associated with its history, it also remains dynamic, with alterations to existing structures and construction of new buildings occurring over time.

Historic District Background
The Lower Arroyo Seco Historic District contains good examples of several different styles and their common variants associated with the Arts and Crafts era. The district is located at the eastern edge of the Arroyo Seco, a valley containing a dry riverbed, which is a major geographical feature and natural and recreational area. The street along West South Arroyo Boulevard is a winding street along the edge of the Arroyo Seco with residences on the east side and the natural brush and terrain on the west side where the hill slopes downward into the Arroyo.

The land in the district, however, slopes to the south, and the east-to-west streets are located perpendicular to the slope and descend westward to the Arroyo. The lots themselves preserve the natural slope of the terrain. West California Boulevard is very wide (formerly a streetcar line), being the western terminus of an east-west thoroughfare through the City of Pasadena. In contrast to the open and wide street, the lots are heavily wooded with very tall, mature trees.

Streetscape features include concrete sidewalks, concrete curbs and planted parkways. The trees which currently dominate many of the contributing properties and streetscape appear to have been planted during the early phases of the neighborhood’s development. Most of the residences in the Lower Arroyo Seco Historic District are Arts and Crafts period houses of two stories or bungalow of one and one-half stories with a large dormer. There are also a small number of one-story bungalows.

On South Arroyo Boulevard, some of the residences are positioned to take advantage of the view of the Arroyo from second-story dormers and sleeping porches. Other residences are sheltered by visually heavy roofs with deep overhangs and are surrounded by the trees and other foliage characteristic of the Arroyo. Naturally rounded, granite river rocks (known locally as arroyo stone) and small boulders from the Arroyo are incorporated into the foundations, porches, chimneys, and landscaping of many of the properties.
The residences on the north side of West California Blvd. toward the eastern edge of the district are located on very large lots, some of which sit above the street behind high retaining walls. Those toward the west end of the district and those on the south side of the street are typically smaller residences on less dramatic sites, many sloping down from the street. In these cases, the residences are one story at the street with an additional exposed basement level at the rear. Many houses in the rest of the district, however, are two stories and on relatively flat lots.

The name of the district refers to the traditional distinction of the lower arroyo being that area located to the south of the still-extant Colorado Street Bridge (1913), and the upper arroyo being north of the bridge. The district has many examples of the work of some of the most significant architects of the Arts and Crafts movement in Pasadena. Architects whose work is found in the Lower Arroyo Seco Historic District include Greene & Greene, Louis de Puget Millar, Alfred Heineman, Reginald Johnson and Louis B. Easton. The residences these architects designed are a part of a district which illustrates the essential character of that movement, in both the design of individual buildings and their settings.

The district is especially significant in this context because it exemplifies the values of design, craftsmanship, and materials which embody the philosophy and practice of the Arts and Crafts movement. The district was the home of several important figures in the Arts and Crafts movement in Pasadena: tile designer Ernest Batchelder; writer Helen Lukens Gaut; designer Edgar Cheesewright; and painters Jean Mannheim, Guy Rose, and Franz Bischoff. These artists made material contributions to the movement not only in their work, but also in their residences, the design of which they at least assisted in. The location and setting of their homes was an essential part of their work which incorporated design that fit into the natural setting of the Arroyo.

**Architectural Styles**

The following list represents the many different architectural styles, types and forms represented in the neighborhood. For more information regarding the development of or the character-defining features of these architectural styles, consult Chapter 2: Pasadena’s Architectural Styles.

- English Arts and Crafts Style
- California Bungalow Style
- Prairie Style
- Chalet Style
- Colonial Revival Style

The district is especially significant as an expression of the values of design, craftsmanship, and materials which embody the philosophy and practice of the Arts and Crafts movement.
SUMMARY OF KEY CHARACTERISTICS

Key design characteristics of this historic district include:

• Arroyo stone walls, often laid in informal patterns
• A rhythm of mature street trees (camphors and oaks)
• System of wide, curvilinear streets that are heavily wooded
• Pie plate, tin street lights mounted on wooden posts
• Views of the Arroyo
• Mature trees and landscaping on private lots
• Most houses built before 1920
• Garages located to the rear of the lot and accessed by a long driveway
• Use of shingles, stucco and stone dominate as the primary building materials
• Use of muted earth tones and natural colors
• Some architecture influenced by the English Arts and Crafts movement, as well as Japanese architecture
• A variety of building setbacks
• Sidewalks along most streets
• Use of one story front porches

DESIGN GOALS

The Lower Arroyo Seco Historic District should continue to develop in a coordinated manner so that an overall sense of visual continuity is achieved. Preservation of the integrity of this area is a primary goal of the Historic Preservation Commission.

The design goals for the Lower Arroyo Seco Historic District are:

• Encourage the restoration of deteriorated historic architectural elements where needed.
• Inform property owners of historic preservation design procedures and guidelines.
• Preserve historic “pie plate” street lighting on public utility poles.
• Protect existing small-scale houses in the neighborhood by encouraging that proposed new additions be designed so that they are in scale, and are compatible in materials, roof forms and relationship of solid to void.
• Preserve the existing front and/or visible elevations by placing new additions on secondary elevations.
• Maintain historic landscape features such as retaining walls, and including significant vegetation.

Maintain historic landscape features such as retaining walls, and including significant vegetation.

Most houses in the historic district were built before 1920.
VIEWS FROM AROUND THE HISTORIC DISTRICT
Chapter 18

The Arroyo Terrace Historic District

Introduction
This chapter presents an historic overview of the Arroyo Terrace Historic District, as well as a summary of the character-defining characteristics and design goals for infill construction.

Designing a building to fit into the context of a neighborhood requires careful thought. First, it is important to realize that while the historic district conveys a certain sense of time and place associated with its history, it also remains dynamic, with alterations to existing structures and construction of new buildings occurring over time.

Historic District Background
The Arroyo Terrace Historic District includes fifteen properties, eleven of which contribute to the character of the district. The district is bounded by Arroyo Terrace in the north and west, North Grand Avenue in the south, and North Orange Grove Boulevard in the east. The district contains a remarkable collection of residences by important Pasadena architects, most notably Charles Greene & Henry Greene, who designed eight of the eleven contributing buildings. Many of the sidewalks are lined with clinker brick and stone retaining walls, and the residences are set among mature trees. The district is located directly south of Westmoreland Place, the location of Greene & Greene’s Gamble House, an Arts and Crafts residence which is a National Historic Landmark.

Arroyo Terrace is an L-shaped street which runs east from Orange Grove Boulevard and then turns south at the edge of the Arroyo Seco, a broad valley which is a major geographic boundary of Pasadena. The district ends where Arroyo Terrace meets Grand Avenue. The residences in the district were originally constructed surrounding a private reservoir. By 1930 the reservoir had a board covering. The rear of many of the lots in the district had service buildings and garages, indicating that there was never a visual relationship between the reservoir and the residences. The reservoir site now contains a condominium complex which is non-contributing to the district.

The streetscapes and the properties themselves have many very large, mature trees, including live oak, eucalyptus and palm. Grand Avenue itself is lined with live oak trees. Brick sidewalks are also a special feature of the district. The other major landscape features are the rock, common brick and clinker brick retaining walls and sidewalk edge walls for subterranean garages. These walls are very important parts of each residence in the district where they are featured. They are irregularly shaped, with battered profiles, and sometimes finished with brick coping. Larger rocks are used at the base, giving a sense that the walls rise out of the natural landscape. The combination of unworked rocks (known locally as arroyo stone) and clinker brick (irregularly shaped bricks created through over-firing) was thoroughly developed by Charles Greene in the years between 1903 and 1906. This district contains Charles Greene’s finest examples of this design feature. Planted parkways line the streets in the district as well.
All of the contributing buildings are single-family residences. They are generally situated with primary facades facing the street in a usual suburban pattern. All of the residences are wood frame, and the dominant exterior cladding material is wood shingle. Some residences have original stucco on all or part of the exterior.

**Architectural Styles**
The following list represents the many different architectural styles, types and forms represented in the neighborhood. For more information regarding the development of or the character-defining features of these architectural styles, consult *Chapter 2: Pasadena’s Architectural Styles*.
- Arts and Crafts Period
- Queen Anne Style
- Tudor/English Cottage Revival Style
- Colonial Revival Style

**SUMMARY OF KEY CHARACTERISTICS**
Key design characteristics of this historic district include:
- Large lots with large architect-designed houses
- Lush landscaping
- Semi-circular street
- Mature trees and landscaping on private lots
- Views to the Arroyo Seco
- Detached garages:
  - Some garages located to the rear of a lot
  - Some garages located at the street edge, but below the elevation of the house
- Craftsman architecture dominates
- Charles Greene’s historic house and studio
- Use of clinker brick for garages and building details
- Brick walkways and driveways

**DESIGN GOALS**
The Arroyo Terrace Historic District should continue to develop in a coordinated manner so that an overall sense of visual continuity is achieved. Preservation of the integrity of this area is a primary goal of the Historic Preservation Commission.

The design goals for the Arroyo Terrace Historic District are:
- Ensure that houses designed by Greene and Greene are preserved by appropriate rehabilitation, restoration and maintenance.
- Preserve and maintain river rock, brick and tile retaining walls, walks, steps and other site features, including significant vegetation.
- Discourage additions to existing Greene and Greene buildings that are visible from the public right-of-way; if necessary, locate them on secondary elevations.
VIEWS FROM AROUND THE HISTORIC DISTRICT
VIEWS FROM AROUND THE HISTORIC DISTRICT
This section presents the following topics:

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Appendix C: Removal of Stucco from Historic Wooden Surfaces 133
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Appendix A

TREATMENT OF DETERIORATED WOOD

INTRODUCTION

The deterioration of wood on exterior components of a building is typically the result of moisture infiltration. Moisture enters wood in both liquid and vapor-form and creates an environment that fosters decay. A common misconception is that the water itself decays the wood; however, it is the moist environment that allows fungi and pests to thrive while using the wood as food that leads to decay. Historic building details such as horizontal surfaces, joints on exposed surfaces and exposed end-grain of wood all pose special challenges to preventing moisture related damage. Fortunately, careful design and regular maintenance prevents most wood from deteriorating. However, in cases of existing damage the goal is to repair the cause of damage and stabilize the features to prevent further deterioration.

Symptoms of Deteriorating Wood

Signs of Wet Rot, Dry Rot & Insects

The specific type of deterioration is not critical because all share the same fundamental cause—high moisture content. Dry rot might be considered an inappropriate name for a wood-destroying fungus that requires moisture to germinate, grow and disperse. Indeed, water/dampness is the fundamental need of all wood destroying fungi plus, of course, a food source (wood); without either the fungus ceases to grow and dies. Clues that dry rot or wet rot exist include the following:

- Damp, soft wood.
- Cracking on a soft wood surface
- Presence of gray or yellowish surface.
- Brownish appearance compared to adjacent wood surfaces.
- Signs of insect colonization.

Preventing Causes of Wood Deterioration

The following steps ensure that exterior elements are protected from deterioration:

Step 1
Evaluate all building features and details for disrepair that permits the penetration of water.

Step 2
Repair or remove the source of water infiltration or accumulation.

Typical sources of water infiltration and accumulation on wooden building elements include: deteriorated or loose flashing, missing building elements such as trim pieces, loose fasteners in wooden trim and siding, poor drainage and flashing paths that direct water behind wooden elements, and wooden elements that are too close to the ground or landscaping features.

Step 3
Identify architectural elements that are prone to water infiltration and deterioration.

In Pasadena some of these have been identified as exposed rafter ends, wood shingle and clapboard siding and wood windows, which are all character defining historic features that should be retained. Typically the deterioration on these elements is due to exposed end-grain, which has an absorbing affect with moisture. In addition, end grain has a natural tendency to split, or check, over time, allowing for deeper penetration of water, pests and fungi, thus compounding the deterioration process. Moisture trapped between the end-grain of wood and other wood elements also has the tendency to harbor moisture and accelerate decay, such as the ends of clapboards or where window trim and sill pieces meet.
Step 4
Regularly maintain those elements which are prone to prolonged exposure and moisture infiltration.
Maintaining a moisture retarding finish on all wooden surfaces and all caulked joints is crucial to prevent water infiltration. Choosing sealants that allow the wood to breathe is also important. Even the strongest protective clear coatings such as a spar-varnish will fade due to ultraviolet (UV) rays and crack over time, allowing water to penetrate with a difficult means of escape. Oil finishes are preferable because they slow the penetration rate of water and they allow water to escape the wood. Oil finishes should be chosen that will not discolor natural wood elements. Solid body oil stains may be more appropriate for areas typically painted that have high exposure to water such as exposed rafter tails, trellises and brackets (see also solid body stains in Appendix E).

Steps to Repairing Deteriorated Wood

Step 1
Stabilize and prevent further deterioration.
Remove deteriorated sections of wood to prevent further decay in adjacent surfaces. Do not remove any more material than necessary or which will compromise the historic integrity of the feature. Upon removal of the deteriorated material, treat the wood with a preservative that will prohibit the growth of fungi and create an inhospitable environment for pests. Significant success has been found with the use of an environmentally benign and naturally occurring mineral—boron. With its ability to remain mobile in wood after treatment and to use available moisture for diffusion boron is an excellent preventative or stabilization treatment.

- Borate treatments penetrate the wood beyond the surface.
- Borates are active at relatively low moisture levels to prevent further deterioration.
- Borates will not discolor wood, unlike most wood preservatives.
- Borate treatments allow wood to receive further stabilization measures, including glue, epoxies and paints. Other preservatives are oily and do not allow adhesion of surface coats required for additional protection.
- Borates will not corrode metal fasteners or nearby metallic architectural elements.

Step 2
Consolidate damaged wood.
Upon repair of the source of water infiltration and thorough application of a wood preservative, voids in damaged wood need to be consolidated to provide strength to the wood and enable surface treatments. Epoxy consolidants are recommended for treatment of damaged historic wood features because they have the ability to give strength to damaged fibers and fill large voids. Consolidants are recommended for both structural wood members such as rafters and roof brackets and other architectural elements such as window sills and porch details.

Basic steps for applying epoxy wood consolidants
- Clean all areas of loose debris, including dirt, sawdust, etc.
- Allow consolidant to thoroughly cure prior to proceeding with further treatments and finishes.
- Follow manufacturer’s instructions for specific product in use.
Step 3
Repair surface with epoxy patching compound.
After wood has been strengthened with a consolidant, any voids, cracks and missing surfaces should be filled with an appropriate restoration wood epoxy. The goal of using an epoxy patching compound is to create a solid surface that will match the visual characteristics of the historic material. Epoxy patching compounds can be used to build up missing sections of wood in structural members as well as mimic detailed profiles in wood trim elements.

Choose appropriate patching epoxy with consideration for the following:
• Is repair structural or cosmetic?
• Will the surface be painted or stained—is the epoxy paintable or able to be tinted for stain?
• Can the epoxy be shaped to match historic profile?
• Is epoxy intended for exterior use?

Step 4
Shape, sand and finish epoxy patch to match adjacent wood surfaces.

For Additional Information:

• Leeke, John. “Save Your Wood Windows” Practical Restoration Reports. (Recommended)
• Leeke, John. “Epoxy Repairs for Exterior Wood” Practical Restoration Reports. (Recommended). Available at <www.HistoricHomeworks.com> or (207)773-2306
INTRODUCTION

Lead paint hazards in older and historic buildings are one of the most widely published topics, yet confusing issues to address when maintaining and rehabilitating older buildings. Choose the appropriate treatment for lead based paint elements based upon the risk of exposure they pose. Ironically, some of the greatest levels of hazardous exposure and incidence of poisoning occur during the process of removing lead paint. The choice to remove lead based paint (LBP) should be evaluated carefully and conducted by trained and safety-equipped professionals.

ABOUT LEAD BASED PAINT HAZARDS

Left undisturbed, lead based paint is not a health hazard. Poisoning typically occurs from direct ingestion or the inhalation of contaminated dust. Lead cannot be absorbed through the skin; therefore merely coming in direct contact with a LBP surface poses a relatively low hazard. However, upon sanding, burning or scraping LBP dust can be inhaled and pose a significant hazard. Through the contemporary understanding of how exposure occurs, housing and health-care professionals commonly support the choice to “leave it alone and keep regularly contacted surfaces free of dust,” rather than the extensive process of paint removal.

The following information is a recommended sequence for the evaluation and treatment of potential lead-based paint hazards:

Step 1
Test for the presence of lead.

Tests can be conducted by homeowners with store-bought kits, through laboratory testing, and on-site testing with X-ray fluorescence (XRF) equipment. Caution: Store-bought testing swabs are inexpensive, but prone to inaccuracy because they only represent surfaces they touch and do not provide information on subsurface layers. Professional testing services are most accurate and relatively inexpensive, and in some cases free-of-charge. Contact local and State agencies for testing information and professional services.

Step 2
Choose most appropriate method of dealing with presence of LBP.

A property owner has three basic choices if potentially hazardous levels of lead based paint are detected- leave it alone and take basic precautions, seal it off or remove the paint. Each choice has advantages and disadvantages with considerations including:

• Health precautions based on potential for exposure
• Cost of removal or abatement.
• Risk of exposure during removal process.
• Potential damage to historic building materials.
1. Leave it alone and practice basic maintenance.

Lead dust is the primary hazard for lead based paint, therefore maintenance practices that eliminate the creation of LBP dust or remove it from the potential for human exposure are recommended. Windows and doors are the two most common causes of LBP dust because of the friction created between rubbing surfaces. Reducing this friction through simple maintenance or repair techniques can eliminate the production of hazardous dust. Most buildings surfaces do not create dust that is easily able to be ingested by humans or animals. For example, the presence of LBP in exterior paint layers such as siding and trim is rarely cause to consider removal. Assuming this paint does not need to be removed for other reasons, the best practice may be basic maintenance with fresh paint.

Some basic maintenance strategies include the following:

- Wet-mop or sponge surfaces such as floors, window sills and woodwork rather than sweeping. Also, consider using HEPA filter vacuums.
- Install jamb liners between window sashes and jambs to eliminate dust-generating friction.
- Keep fresh coats of paint on friction-prone surfaces to eliminate friction with LBP paint layers.
- Consider stripping only those surfaces that produce dust such as doors, door jambs and window sash. (See also Appendix D: Paint Removal from Exterior Wooden Surfaces). Use services of a professional paint stripping or lead abatement service.
- Refer to the additional sources for more specific information on maintenance techniques when LBP is detected.

2. Cover it up and seal it off.

The process of burying LBP in place is commonly referred to as encapsulation. Generally encapsulation refers to preventative treatment on the interior of buildings. Support for encapsulation has increased because it has significantly less potential for creating hazardous dust and debris than paint removal and it is a fraction of the cost. Encapsulation can refer to placing a physical barrier over surfaces such as drywall, or the application of specialized “encapsulating paint” that has lead-barrier capacities.

Encapsulation can be the safest, quickest and least expensive option in many scenarios; however, consider the following:

- Encapsulating paint is thick and has a tendency to obliterate sharp architectural details.
- Covering surfaces leaves the hazard for potential future exposure during renovations.
- Always make sure chosen encapsulation procedures are approved by local and State health and building agencies.
- Encapsulating lead-barrier paints are not suitable for use on exterior surfaces such as siding and trim because they do not breathe and can cause moisture problems in woodwork.
3. Strip surfaces and remove lead.
The process of removing lead and properly disposing of all debris is a job for certified lead-abatement contractors. This process is expensive and requires extensive precautions to prevent harmful exposure to workers and neighboring properties. The process can range from $20,000-$30,000 for complete abatement on a medium sized home, with costs approximating $12/square foot of surface area. Complete removal is rarely necessary and should focus upon those surfaces which create hazardous dust and which might be disturbed in the event of any renovations.

For a synopsis of technical strategies for removing paint from historic materials refer to Appendix D: Paint Removal from Exterior Wooden Surfaces. In the event lead removal is required or may be appropriate, refer to the provided list of sources for additional information and contact lead-abatement certified personnel Consider the following when planning for the removal of lead based paint:

- Vacate the property while abatement occurs and confirm measures have been taken to prevent the contamination of outside air and soil.
- Confirm that paint removal will not damage historic architectural woodwork and elements.
- Seek samples of work from contractors proving competency with the careful removal of paint from historic materials.
- Test all surfaces upon completion for presence of lead dust.

FOR ADDITIONAL INFORMATION:

- National & California Contacts for Resource Information:
The following sources can be contacted for updated technical information, testing procedures, professional service provider information, and current rules and regulations regarding lead safety.

<table>
<thead>
<tr>
<th>Contact</th>
<th>Phone Number</th>
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<tbody>
<tr>
<td>National Lead Information Center (NLIC)</td>
<td>(800) 424-LEAD</td>
</tr>
<tr>
<td>Lead List</td>
<td>(888) 532-3547</td>
</tr>
<tr>
<td>California Department of Health Service</td>
<td>(415) 554-8930</td>
</tr>
<tr>
<td>California Health &amp; Environmental Agency</td>
<td>(510) 450-2424</td>
</tr>
<tr>
<td>Environmental Protection Agency (EPA)- Region 9</td>
<td>(415) 744-1124</td>
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APPENDIX C

Removal of Stucco from Historic Wooden Surfaces

INTRODUCTION

Historic building materials should be preserved when feasible and non-historic surfaces covering historic materials should be removed. In cases where stucco surfaces are non-historic they should be removed and the primary historic surface should repaired. When stucco surfaces have achieved historic significance it may be appropriate to maintain these surfaces as the primary wall coatings, even if they are not the original surface.

RECOMMENDATIONS FOR CONSIDERING STUCCO REMOVAL

1. Research for historic photographs that document the original conditions and materials of the building.

2. In a few inconspicuous locations, sample below the stucco to confirm the existence and possible condition of the historic material.
   • A medium-diameter, bi-metal hole saw will provide a clear sample. Fill the test-holes with matching diameter patches, weatherproof and cover appropriately until further rehabilitation proceeds.

3. Determine construction and application technique of stucco to more accurately assess ease of removal and condition of original materials.

POSSIBLE SCENARIOS

Application of stucco over attached wire mesh.

The application technique and composition of stucco has evolved; however, all stucco types require a rough surface to bond against and form keys, which are what holds the material against vertical surfaces. Therefore, when applied over wood surfaces such as clapboards or shingles, the installation of an additional bonding surface was often employed. A common sequence would have been to cover the original siding with a moisture-retarding building paper and then fasten wire mesh to the siding. Typical stucco procedures would then follow, beginning with a first rough or ‘brown’ coat and then subsequent layers until the desired finish was achieved.

Application of stucco directly on original wood siding.

In some cases, the original wood siding may have been “scarified” or roughened to provide a bonding surface for the stucco. In most cases, this process will have damaged the siding to an extent that would render it non-feasible to repair upon removal of the stucco.

Application of stucco directly on wood siding is causing or accelerating moisture damage on building features.

Because stucco can allow water to penetrate the building envelope and trap moisture within the walls in certain circumstances, its removal may be warranted for building maintenance. If the stucco has been determined to be historic, it should be retained and repaired. In instances where the stucco has been determined non-historic and creating building problems due to moisture infiltrat-
tion and retention, removal may be appropriate. In this event, the replacement siding should match the historic siding in the following characteristics: material, shape, size, color and texture.

Note: Always create sample patches of all possible removal and repair treatments in small, hidden areas prior to deciding upon the most effective treatment and technique.

RECOMMENDED TREATMENTS

1. If stucco is applied over attached wire mesh.
   This is the best case scenario especially when a building paper was installed between the wire mesh and the original siding material was painted. The paint helps prevent a bond between the stucco and the wood. Raw wood or stained wood will more likely be stained by the stucco upon removal. These conditions along with careful removal will permit removal of the stucco and leave the original siding and wooden materials in a condition that are feasible to repair; however, be prepared to replace damaged material.

Follow these steps:
• Remove stucco by scoring surfaces to a depth that permits removal in small sections, but does not damage the original material.
• Removal in small sections prevents damage to siding caused by the weight pulling larger sections off.
• Upon removal of outer layers, carefully remove metal mesh attachments, which may be nails or staples.
• Remove building paper if present.
• Thoroughly clean all surfaces with mild cleaning solution and non-abrasive brush.
• Repair all damaged wood surfaces from metal attachments with appropriate methods, which may include the following: If surfaces are historically painted, patch damaged surfaces with paintable epoxy-wood filler. If surfaces are historically stained or raw wood, patch damaged areas with a restoration wood filler that can be tinted to match desired color.
• Replace any wooden elements that can not feasibly be patched with materials in-kind, that match the historic material in color, cut, shape, size, and texture.
• It may be appropriate to stain original wood surfaces a darker tone if they have been stained by the stucco.

2. Application of stucco directly on original wood siding.
   This scenario poses a significant challenge because it renders the removal process slow and more likely to damage the original wood beneath. In addition, the original wood is most likely damaged by the scarification process and stained significantly. Therefore, upon removal, the repair of the existing wood would not be feasible in most instances, rendering its removal and replacement necessary. In such a scenario, the replacement siding should match the historic material based upon photographic documentation and existing conditions gathered from the material removed. Any new material should match the historic material in material, color, cut, shape, size, and texture.

FOR ADDITIONAL INFORMATION:

• Anne Grimmer Preservation Brief 22: The Preservation and Repair of Historic Stucco. National Park Service. Available at <www2.cr.nps.gov/freepubs> or SHPO office
Appendix D

Paint Removal from Exterior Wooden Surfaces

Introduction
Removing paint from historic building surfaces and elements requires time and patience. Although numerous methods and materials exist, each has advantages and disadvantages. A combination of approaches is often required to most successfully complete a paint removal job. All methods should be tested prior to commencing work to assure no damage occurs to historic building components. Always follow appropriate safety procedures if the presence of lead is detected.

Motivation for Paint Removal
Exterior paint removal may be required for the following reasons:
• Paint buildup compromises mechanical function of building components, such as windows and doors.
• Paint buildup masks architectural details.
• Need to repair damaged surfaces.
• Required in order to guarantee proper adhesion for new paint surface.
• Paint has been inappropriately applied to historic materials (e.g., application of texture paint on historically smooth surfaces).
• Required for lead abatement procedures.
• Paint layers are significantly degenerated, causing “alligatoring,” cracking or peeling.

Considerations when choosing appropriate methods.
There are three general methods of paint removal for wood surfaces; they include abrasive, heat and chemical methods. Each method has advantages, as well as the potential for danger to the worker and building materials. The following criteria should be considered when choosing the most appropriate methods:
• The health and safety of those individuals performing the paint removal.
• The continued protection and preservation of the historic exterior woodwork.
• Retention of the sequence of historic paint layers.

Abrasive
“Abrading” the painted surface by manual and/or mechanical means such as scraping and sanding. Generally used for surface preparation and limited paint removal.

Advantages include the following:
• Low materials cost
• Best suited in limited areas of application.
• Enables quality paint adhesion for repainting and smooth surface coat.

Disadvantages include the following:
• Labor intensive.
• Inexperienced can generate considerable damage to historic surfaces (gouging, loss of detail, etc.)
• Poses health hazard if lead paint is present due to dust - requires specialized safety equipment and disposal. See Appendix A: Treatment of Deteriorated Wood for more information.

Caution: Do not use mechanical sanders if potential for lead based paint exists. Specialized mechanical paint and siding sanders exist; however, they can remove excessive material which is not appropriate. Special vacuum-equipped sanding equipment is required along with other safety precautions for sanding lead based paint surfaces.
Thermal
Specially designed heat guns can soften and raise paint layers in order to ease removal with specialized scraping tools. Generally used for total paint removal. This is the most often recommended practice by the National Park Service Training Center.

Advantages include the following:
• Materials and equipment are reusable and inexpensive.
• Does not produce dust and debris and is less messy than when using chemicals.
• Does not damage underlying wood as with some chemical strippers.
• Allows stripping of very fine details with customized scraping blades.
• Generally less expensive and faster than chemical stripping.

Disadvantages include the following:
• High temperatures create potential for fire hazard.
• Can damage or char wood if not carefully used.
• Volatile vapors are created and pose a health risk to worker—specialized HEPA respirators can reduce this risk.
• Lead based paint will vaporize and create substantial health risk to workers and occupants, without proper safety precautions. Minimum precautions include HEPA respirators for ventilated exterior work.
• Only certified lead paint-abatement personnel should undertake exterior paint removal where lead based paint is present for safety and disposal purposes.

Additional Recommended Procedures
• Use more delicate techniques including sanding and a strong alkaline cleaner to clean off residual paint material after scraping.
• Avoid using heat to strip paint from wood veneered elements.
• Refinish or seal exterior wood components immediately after stripping and prepping surface. Exposed wood will absorb moisture over the course of a few days and create adhesion problems when refinishing.

Chemical
Softening of the paint layers with chemical strippers followed by scraping and sanding. Generally used for total paint removal. The principal caustic and solvent strippers are commercially available and when poured, brushed, or sprayed on painted exterior woodwork are capable of softening several layers of paint at a time so that the resulting “sludge” can be removed with a putty knife. Detachable wood elements such as exterior shutters can also be “dip-striped.”

Advantages include the following:
• Enable the removal of paint from intricate architectural details and elements where sanding or scraping is not possible.
• Enable window muntin and components to be stripped without requiring glass removal as opposed to using heat removal methods.
• Enables removable elements such as window sash, doors, railings, etc. to more efficiently stripped off-premises, or by commercial stripping companies.
• Removes old varnish more effectively than heat or scraping methods after paint layers have been removed. Appropriate for historically clear-finished wood elements.

Caution: Always take precautions against accidental fire. Keep fire extinguishers within reach of worker. Pay careful attention to potential for burning in wall cavities or behind trim. Best to allow a few hours at the end of each day without use of guns to monitor building. Do not use an open-flame torch to heat paint.
Disadvantages include the following:

- Both caustic and solvent-type strippers pose potential health hazards for the worker.
- The stripping process creates hazardous waste as a by-product.
- Strippers can damage wood and leave residue making paint adhesion difficult.
- Commercially stripped items are subject to delaminating layers of wood and loosening of glue joints. Always request to see samples of work.

Additional Recommended Procedures

- Always make sure stripping agent has been thoroughly cleaned from wood surface. Follow manufacturer’s instructions with careful attention to neutralizing procedures. The failure to properly neutralize the wood to pH levels of 7-8 will prevent future paint adhesion. (Solvent strippers do not require a neutralizer)
- Avoid “water-rinsable” solvent strippers when containment of the waste is difficult.
- Conservatively test application amounts and dwell time because solvent-based strippers can deeply penetrate the wood and breakdown its structure, leaving a leathery surface to the wood.
- Always sample with different techniques and materials and allow ample time to judge effects prior to choosing a strategy. Typically, a combination of methods is the most effective and will cause the least amount of damage to the historic materials.

For Additional Information:

Preventing Ultraviolet Deterioration in Wood

INTRODUCTION
Prolonged exposure to Ultraviolet Radiation (UV) will deteriorate and alter the appearance of all woods, regardless of wood quality and construction techniques. This deterioration is most severe and rapid in areas of extreme exposure and features unprotected by a UV inhibiting finish, usually a paint or stain. The best protection from harmful UV exposure is the addition of a protective surface or coating, which contains either solid pigments or UV stabilizers. The desire to maintain a clear or semi-clear finish that highlights the natural beauty and grain of wood poses special challenges when exterior wood is subject to UV exposure.

IDENTIFYING THE SYMPTOMS OF UV DEGRADATION IN WOOD
Any exterior wood surfaces that are subject to cycles of sun exposure and rain are subject to UV degradation. Factors that accelerate this effect include the following:
- Severe exposure to the sun (southern exposure, elevation, lack of shading)
- Surfaces with deteriorated paint surfaces.
- Surfaces with stains, which lack any UV inhibiting ingredients.
- Surfaces with clear finishes.

Wood fibers subject to photodegradation caused by UV radiation demonstrate characteristics that are different from deterioration that is related to moisture, insects or fungi. Wood deterioration due to UV degradation will change the appearance of a wood surface in both color tone and surface texture. The following characteristics are symptomatic of UV deterioration:
- Light colored woods tend to darken in color tone
- Dark colored woods tend to lighten in color tone
- Surfaces become “ribbed” and rough textured because the lignin (softer tissue) has deteriorated leaving striated cellulose fibers remaining. Cellulose will decay as well, but at a much slower rate.
- Surfaces, particularly end-grain will become “checked” or split.

PREVENTING UV DEGRADATION IN WOOD
Apply a protective surface layer, either in the form of a paint, stain, penetrating oil finish, or UV inhibiting clear finish. Carefully choose the surface treatment based upon required performance. Not all products marketed as “wood preservatives” or protective “exterior varnishes” are appropriate for UV exposure and if used inadvertently may cause an undesirable maintenance cycle.

TYPES OF EXTERIOR FINISHES AND THEIR UV PROTECTION PERFORMANCE

Pigmented Finishes
Paints—Heavily pigmented surface coating that creates a protective surface coating. Paints offer the best UV protection because of the solid pigments contained in their composition.

Solid Body Stains—Solid body stains are closely related to paint in that they use solid pigments suspended in a penetrating solution. These products can have the advantage of offering surface penetration of the wood in addition to solid pigments, which help prevent UV degradation. These products will not offer the long-term UV protection...
that paint will, but do provide the advantages of greater moisture permeability and wood protection while exposing the natural characteristics of the wood. The products can often be combined with mildewcides and fungicides for added protection against the natural elements.

Clear Finishes
Clear natural finishes generally fit into three categories: Water-Proofing/Water-Repellent Sealers, Wood Preservatives, and UV-Resistant Clears. In addition, varnishes, particularly spar and marine varnishes are often used as solid-surface clear coatings for exterior application. Some clear natural finishes on the market today may combine characteristics from more than one of these three categories. Products in each of these categories may be manufactured with solvent-based, oil-based or water-based formulas. Some of these products may be film-forming, which will ultimately be subject to the same UV degradation of the wood and typically result in difficulty maintenance scenario.

Water Repellent Finishes—Clear products that fall into the water-repellent category are clear, penetrating finishes. They typically contain a large amount of wax, usually paraffin, that decreases the amount of water absorbed into the wood, thus preventing swelling, shrinking, warping, and splitting. Because moisture is repelled, mildew growth is slowed. These products often provide spectacular beading of water upon initial application. However, they offer wood little protection from the sun's ultraviolet ray, resulting in the eventual discoloration and degradation without frequent recoating. These products typically have a life expectancy of six-months on horizontal surfaces (decks) to two years on vertical surfaces. These are often the most commonly available and incorrectly marketed products.

Wood Preserving Finishes—Wood Preserving Clears contain a preservative and wax, as well as a resin and solvent. The wax reduces the absorption of liquid water by the wood, and the preservative prevents wood from darkening by inhibiting the growth of mildew and decay organisms. How-

ever, without special ultraviolet radiation absorb-

ers, wood preserving clear finishes will not pro-
tect the wood surface from the sun's ultraviolet rays. These products have a lifespan of six months on horizontal surfaces to two years on vertical surfaces.

UV Resistant Clears—This is the broadest category of clear natural finishes on the market. Pigments and organic chemical additives are used as light absorbers (or screeners) to protect the products binder from degradation by the suns ultraviolet rays. The pigments that are used most frequently are either a transparent form of iron oxide that reflects UV radiation or ultrafine titanium dioxide. UV-Resistant Clears are not “water” clear, but rather products that impart a slight color tone from the use of transparent transoxide pigments or titanium dioxide and penetrate into the wood surface. Thus with UV-Resistant Clears, various “colors” are available. The life expectancy of a UV-Resistant Clear finish is twice that of water-proofing/water-repellents and wood-preserving finishes and can range from one to two years on horizontal surfaces (decks), to two to four years on vertical surfaces. Because product names vary, look for active UV inhibiting ingredients, including:

- iron oxide
- ultrafine titanium dioxide
- transoxide pigments
- titanium dioxide

Exterior Varnishes—Houses are not boats and few people are willing or able to perform the regular maintenance needed on boat finishes on building surfaces, hence exterior varnishes are rarely recommended except for limited application (doors, signs, etc). Spar and marine varnishes require regular maintenance and although they contain UV inhibitors, they degrade and often create a peeling film that makes reapplication difficult and aesthetically unpleasing if not thoroughly prepared. In addition, these coatings are not truly clear, they generally contain yellow oxide UV inhibitors, which will create an amber effect upon surfaces.
REHABILITATION OF UV DAMAGED SURFACES

Step 1
Remove deteriorated paint or other surface coatings.
See also Appendix D: Paint Removal from Exterior Wooden Surfaces.

Step 2
Sand weathered and deteriorated wood down to “good” wood.
UV damaged wood will usually contain deteriorated wood fibers, which remain on the surface. These deteriorated fibers do not allow proper adhesion of surface treatments. Generally, sanding down to bright with 50 to 80-grit sandpaper, will allow surface treatments to bond directly to a stable surface.

Step 3
Use a Pre-Prep to recondition weathered wood.
Porous and dried out wood, typical of UV damaged surfaces, can be rejuvenated with a linseed oil pre-prep mixture. This time-honored additional step is not only effective at restoring the integrity of wood, but it also improves the adhesion of the primer, increases coverage of the prime coat and topcoats, and enhances the final appearance of the job.

• Blend boiled (not raw) linseed oil and turpentine in a 50:50 solution. Vary proportions based on experimentation—for drier wood, add more linseed oil.
• Brush mixture on any exposed wood, particularly end-grain and weathered areas. Reapply in areas where it is readily absorbed.
• Allow 24 hours to dry before proceeding with an oil-based primer.

Use this treatment only for surfaces to be painted. Surfaces to receive stains or clear solutions should not be treated in this manner.

FOR ADDITIONAL INFORMATION:

• Joint Coatings/Forest Products Committee Articles (www.historichomeworks.com/HHW/library/coatings/articles.html):
  “Cleaners And Restorers For Wood Decks And Siding”
  “Clear Exterior Finishes”
  “Finishes For Exterior Wood Surfaces”
  “Surface Preparation And Refinishing Of Wood”
These definitions apply to terms related to compliance in the preceding text.

**Appropriate** - In some cases, a stated action or design choice is defined as being “appropriate” in the text. In such cases, by choosing the design approach referred to as “appropriate,” the reader will be in compliance with the guideline. However, in other cases, there may be a design that is not expressly mentioned in the text that also may be deemed “appropriate” by the HPC.

**Consider** - When the term “consider” is used, a design suggestion is offered to the reader as an example of one method of how the design guideline at hand could be met. Applicants may elect to follow the suggestion, but may also seek alternative means of meeting it. In other cases, the reader is instructed to evaluate the ability to take the course recommended in the context of the specific project.

**Context** - In many cases, the reader is instructed to relate to the context of the project area. The “context” relates to those properties and structures adjacent to, and within the same block or historic district as the proposed project. Section IV: Historic Districts, which contains the chapters for each individual historic district, should be consulted when determining a project’s context and associated design goals for design.

**Contributing** - Architecturally, historically or geographically significant buildings or structures are generally considered to be “contributing” to a local Landmark District.

**Guideline** - In the context of this document, a “guideline” is a requirement that must be met, in order to be in compliance with the City of Pasadena’s design review process.

**Historic** - In general, an historic property is one that is at least 50 years old or older, associated with significant people or events or conveys a character of building and design found during the district's period of significance. In the context of this document, an “historic” property is one that is designated as an individual historic property by the City.

**Imperative mood** - Throughout this document, many of the guidelines are written in the imperative mood. The reader is often instructed to “maintain” or “preserve” an established characteristic. The imperative mood is used, in part, because this document is intended to serve an educational role as well as a regulatory one.

**Inappropriate** - Inappropriate means impermissible. When the term “inappropriate” is used, the relevant design approach shall not be allowed.

**Non-contributing** - Recent buildings and those fifty years old or older which have lost their integrity are considered “non-contributing.” These buildings or structures do retain value as residential properties, but do not possess the significance and/or physical integrity necessary to be considered an individual historic property.

**Preferred** - In some cases, the reader is instructed that a certain design approach is “preferred.” In such a case, the reader is encouraged to choose the design option at hand. However, other approaches may be considered.

**Should** - If the term “should” appears in a design guideline, then compliance is required, unless specific circumstances of a project make it impractical to do so. In such cases where HPC determines that compliance is not required, then the applicant must demonstrate how the related policy statement still will be met.
Appendix G
The Secretary of the Interior’s Standards for the Rehabilitation of Historic Buildings

1. A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.

2. The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.

3. Each property shall 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 architectural elements from other buildings, shall not be undertaken.

4. Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.

5. Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a historic property shall be preserved.

6. Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.

7. Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.

8. Significant archeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.

9. New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.

10. New additions and adjacent or related new construction shall 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.

Alterations and additions to existing properties should not be discouraged when such alterations and additions do not destroy significant historical, architectural or cultural material. Such design should be compatible with the size, scale, color, material and character of the property, neighborhood and environment.
Alignment. The arrangement of objects along a straight line.

Appurtenances. An additional object added to a building; typically includes vents, exhausts hoods, air conditioning units, etc.

Asphalt Shingles. A type of roofing material composed of layers of saturated felt, cloth or paper, and coated with a tar, or asphalt substance, and granules.

Association. As related to the determination of “integrity” of a property, association refers to a link of a historic property with a historic event, activity or person. Also, the quality of integrity through which a historic property is linked to a particular past time and place.

Baluster. A short, upright column or urn-shaped support of a railing.

Balustrade. A row of balusters and the railing connecting them. Used as a stair rail and also above the cornice on the outside of a building.

Bargeboard. A projecting board, often decorated, that acts as trim to cover the ends of the structure where a pitched roof overhangs a gable.

Bracket. A supporting member for a projecting element or shelf, sometimes in the shape of an inverted “L” and sometimes as a solid piece or a triangular truss.

Building. A resource created principally to shelter any form of human activity, such as a house.

Clapboards. Narrow, horizontal, overlapping wooden boards, usually thicker along the bottom edge, that form the outer skin of the walls of many wood frame houses. The horizontal lines of the overlaps generally are from four to six inches apart in older houses.

Column. A slender upright structure, generally consisting of a cylindrical shaft, a base and a capital; pillar: It is usually a supporting or ornamental member in a building.

Composition Shingles. See asphalt shingles.

Cornice. The continuous projection at the top of a wall. The top course or molding of a wall when it serves as a crowning member.

Design. As related to the determination of “integrity” of a property, design refers to the elements that create the physical form, plan, space, structure and style of a property.

Doorframe. The part of a door opening to which a door is hinged. A doorframe consists of two vertical members called jambs and a horizontal top member called a lintel.

Double-Hung Window. A window with two sashes (the framework in which window panes are set), each moveable by a means of cords and weights.

Dormer. A window set upright in a sloping roof. The term is also used to refer to the roofed projection in which this window is set.

Eave. The underside of a sloping roof projecting beyond the wall of a building.

Elevation. A mechanically accurate, “head-on” drawing of a face of a building or object, without any allowance for the effect of the laws of perspective. Any measurement on an elevation will be in a fixed proportion, or scale, to the corresponding measurement on the real building.

Facade. Front or principal face of a building, any side of a building that faces a street or other open space.
**Fascia.** A flat board with a vertical face that forms the trim along the edge of a flat roof, or along the horizontal, or “eaves,” sides of a pitched roof. The rain gutter is often mounted on it.

**Feeling.** As related to the determination of “integrity” of a property, _feeling_ refers to how a historic property evokes the aesthetic or historic sense of past time and place.

**Fenestration.** The arrangement of windows and other exterior openings on a building.

**Form.** The overall shape of a structure (i.e., most structures are rectangular in form).

**Frame.** A window component. See window parts.

**Gable.** The portion, above eave level, of an end wall of a building with a pitched or gambrel roof. In the case of a pitched roof this takes the form of a triangle. The term is also used sometimes to refer to the whole end wall.

**Glazing.** Fitting glass into windows and doors.

**Head.** The top horizontal member over a door or window opening.

**Infill.** The construction of a new building in an historic district.

**In-Kind Replacement.** To replace a feature of a building with materials of the same characteristics, such as material, texture, color, etc.

**Integrity.** A property retains its integrity, if a sufficient percentage of the structure date from the period of significance. The majority of a building’s structural system and materials should date from the period of significance and its characteristic defining features also should remain intact. These may include architectural details, such as dormers and porches, ornamental brackets and moldings and materials, as well as the overall mass and form of the building.

**Lap Siding.** See clapboards.

**Location.** As related to the determination of “integrity” of a property, _location_ refers to a historic property existing in the same place as it did during the period of significance.

**Mass.** The physical size and bulk of a structure.

**Masonry.** Construction materials such as stone, brick, concrete block or tile.

**Material.** As related to the determination of “integrity” of a property, _material_ refers to the physical elements that were combined or deposited in a particular pattern or configuration to form a historic property.

**Module.** The appearance of a single facade plane, despite being part of a larger building. One large building can incorporate several building modules.

**Molding.** A decorative band or strip of material with a constant profile or section designed to cast interesting shadows. It is generally used in cornices and as trim around window and door openings.

**Muntin.** A bar member supporting and separating panes of glass in a window or door.

**Orientation.** Generally, orientation refers to the manner in which a building relates to the street. The entrance to the building plays a large role in the orientation of a building; whereas, it should face the street.

**Panel.** A sunken or raised portion of a door with a frame-like border.

**Pediment.** A triangular section framed by a horizontal molding on its base and two sloping moldings on each of its sides. Usually used as a crowning member for doors, windows and mantles.
**Period of Significance.** Span of time in which a property attained the significance.

**Porch Piers.** Upright structures of masonry which serve as principal supports for porch columns.

**Post.** A piece of wood, metal, etc., usually long and square or cylindrical, set upright to support a building, sign, gate, etc.; pillar; pole.

**Preservation.** The act or process of applying measures to sustain the existing form, integrity and materials of a building or structure, and the existing form and vegetative cover of a site. It may include initial stabilization work, where necessary, as well as ongoing maintenance of the historic building materials.

**Property.** Area of land containing a single historic resource or a group of resources.

**Protection.** The act or process of applying measures designed to affect the physical condition of a property by defending or guarding it from deterioration, loss or attack or to cover or shield the property from danger of injury. In the case of buildings and structures, such treatment is generally of a temporary nature and anticipates future historic preservation treatment; in the case of archaeological sites, the protective measure may be temporary or permanent.

**Reconstruction.** The act or process of reproducing by new construction the exact form and detail of a vanished building, structure or object, or part thereof, as it appeared at a specific period of time.

**Rehabilitation.** The act or process of 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 value.

**Renovation.** The act or process of returning a property to a state of utility through repair or alteration which makes possible a contemporary use.

**Restoration.** The act or process of 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.

**Sash.** See window parts.

**Scale.** The size of structure as it appears to the pedestrian.

**Setting.** As related to the determination of “integrity” of a property, setting refers to the physical environment of a historic property.

**Shape.** The general outline of a building or its facade.

**Side Light.** A usually long fixed sash located beside a door or window; often found in pairs.

**Siding.** The narrow horizontal or vertical wood boards that form the outer face of the walls in a traditional wood frame house. Horizontal wood siding is also referred to as clapboards. The term “siding” is also more loosely used to describe any material that can be applied to the outside of a building as a finish.

**Sill.** The lowest horizontal member in a frame or opening for a window or door. Also, the lowest horizontal member in a framed wall or partition.

**Size.** The dimensions in height and width of a building’s face.

**Soffit.** The exposed underside of an architectural feature, such as an arch, cornice, balcony, or beam.

**Stile.** A vertical piece in a panel or frame, as of a door or window.
**Stabilization.** The fact or process of applying measures designed to reestablish a weather resistant enclosure and the structural stability of an unsafe or deteriorated property while maintaining the essential form as it exists at present.

**Standing Seam Metal Roof.** A standing seam roof is a roof with vertical panels. Historically, the panels were fitted together with hand rolled seams.

**Streetscape.** Generally, the streetscape refers to the character of the street, or how elements of the street form a cohesive environment.

**Traditional.** Based on or established by the history of the area.

**Transom Window.** A small window or series of panes above a door, or above a casement or double hung window.

**Vernacular.** This means that a building does not have details associated with a specific architectural style, but is a simple building with modest detailing and form. Historically, factors often influencing vernacular building were things such as local building materials, local climate and building forms used by successive generations.

**Visual Continuity.** A sense of unity or belonging together that elements of the built environment exhibit because of similarities among them.

**Window Parts.** The moving units of a window are known as *sashes* and move within the fixed Frame. The *sash* may consist of one large *pane* of glass or may be subdivided into smaller panes by thin members called *muntins* or *glazing bars*. Sometimes in nineteenth-century houses windows are arranged side by side and divided by heavy vertical wood members called *mullions*.

**Workmanship.** As related to the determination of “integrity” of a property, *workmanship* refers to the physical evidence of the crafts of a particular culture, people or artisan.
APPENDIX I
ARCHITECTURAL & HISTORICAL DEVELOPMENT OF THE CITY OF PASADENA: HISTORIC CONTEXT, PROPERTY TYPE REPORT

Submitted to the California State Office of Historic Preservation by:

Pamela O’Connor and the Urban Conservation Section of the Planning Division of the City of Pasadena

January 13, 1993

FORWARD

The following report is a project of the urban Conservation Section, Planning Division, of the City of Pasadena. Funding for the project was through a Certified Local Government grant by the California Office of Historic Preservation from pass-through funding by the U.S. Department of the Interior.

This report contains two sections, the first is a historic context statement, the second, a property type analysis. As defined by the National Park Service, U.S. Department of the Interior, Bulletin #24, a historic context is “a broad pattern of historical development in a community or its region, that may be represented by historic resources.” A historic context statement may be focused on one particular theme, e.g., residential development, or it may include many themes based on economic, social, cultural, architectural, technological, etc. histories. Historic contexts provide information that helps a community find and document its historic resources.

Since a city development and building construction is related to economics, the themes in this historic context statement are those of the major economic development periods in the City’s history. These economic themes should not be construed as an all-encompassing history of the City of Pasadena, as there are equally significant themes that could not be included in this project because of limitations of time and funding. One significant theme, which also relates to the City’s economic history, is the contribution of ethnic cultures.

Also because of limitations of time and funding, the report does not adequately address the more recent historical period, after World War I to 1950. Urban Conservation staff intends to apply for another Certified Local Government grant in the next funding cycle to expand this report to include the City’s later economic history and the ethnic culture theme.

The property type section of this document includes only residential buildings. Commercial and institutional property types were beyond the scope of this project. Also, additional research and surveys to document such buildings need to be completed before an analysis of commercial and institutional types is completed.

Both sections of this report are to be used as a reference for evaluating the integrity of historic resources in the City of Pasadena and justifying the significance of the resources. The document is intended to aid in the City’s preservation planning efforts and in the preparation of nominations to the National Register of Historic Places.
INTRODUCTION

Before the citrus, there were ranches; before the ranches, Indians; before the Indians, the primeval scene: huge unencumbered alluvial fans leaning into the fast-rising mountains beside the hazy plain—the broadest coastal lowland in all of California.

John McPhee

The Land

The San Gabriel Valley is part of the Los Angeles basin that is bounded by the San Gabriel and San Bernardino Mountains on the north, the San Jacinto and Santa Ana Mountains on the south, and the Pacific Ocean on the west. This basin is divided into a Coastal Plain, the San Fernando Valley and the San Gabriel-San Bernadino Piedmont. The San Gabriel Valley lies in the Piedmont region (as do the Pomona and San Bernadino valleys).

The City of Pasadena sits in the San Gabriel Valley which is crowned with one of the most active, rugged and dramatic mountain ranges in North America, the San Gabriel Mountains. The mountains are a fault block, part of the earth's crust uplifted between huge fractures that cut deeply to the crust. The San Gabriels are young mountains geologically speaking. Most of the uplift has taken place over the last 2 to 3 million years and the process continues. They are "shedding, spalling, self-destructing ... disintegrating at a rate that is among the fastest in the world." (McPhee, p. 45)

From platform to summit, these mountains are 3,000 feet higher than the Rocky Mountains. Mt. Baldy soars to 10,000 feet above the valley floor and Mt. Wilson to 5,565 feet above Pasadena. Mountain streams carve out canyons and wooded gorges such as the Arroyo Seco that runs through Pasadena. Over the years, alluvial debris has been swept down the mountains by streams and floods creating a series of coalescing fans at the mountains' base. Pasadena sits on some of the accumulated, eroded bedrock, above the Raymond basin. Numerous springs are located along the escarpment of wooded hills and canyons.

A mild Mediterranean climate of dry, hot summers and cool moist winters embraces the area. Extreme temperatures occur at the higher elevations in the winter, occasionally dipping as low as 30 degrees, and on the valley floor in the summer, rising as high as 100 degrees.

The Valley's Early Inhabitants—The Gabrielinos California's Native Americans were remarkably diverse. Numbering about 300,000 they were divided into more than 100 separate tribes or nations with four major North American linguistic groups represented. They shared common traits such as "dress, housing, manufacturing methods, routine activities, and economic pursuits." (Rawls, p. 46) Their habitat, the "California culture area" comprised four areas including the southern (where Pasadena is located), central, northwestern, and northeastern regions. Approximately 20 tribes populated the southern culture area.

The indigenous inhabitants of the Los Angeles basin are thought to have been Hokan. They were replaced by Shoshoneans, of the Uto-Aztecan linguistic stock, around 500 B.C. Known as the Gabrielinos, this group was the "wealthiest, most populous, and most powerful ethnic nationality in aboriginal southern California, their influence spreading as far north as the San Joaquin valley, as far east as the Colorado River, and south into Baja California." (Bean and Smith, p. 538). However, knowledge of them is limited since they were extinct before systematic ethnographic studies were being conducted.

It is believed that the Gabrielinos lived in permanent villages located along rivers and streams. As their population grew, satellite communities emerged that were connected through economic, religious and social ties. Early Spanish reports noted the average population of a Gabrielino village was between 50 and 100.

The Gabrielinos lived in domed, circular structures, framed in willow and thatched with tule, or ferns. Other village structures included sweathouses, menstrual huts, and a ceremonial enclosure, the yuva'r. The yuva'r, an oval, open-air enclosure, was built near the chief's house.
Not much is known about the daily life of the Gabrielino though there is speculation that three social classes existed: an elite (the chiefs and their immediate family and the very rich); a class from well-to-do and long-established lineages; and a class of ordinary individuals. Succession was usually through the male line.

The women of the village gathered and prepared foods such as acorns, plants and seeds. The men hunted and snared animals such as deer, antelope, rabbits, and gophers and fished along rivers and streams.

The Gabrielino’s material culture “...reflected an elaborately developed artisanship, with many everyday use items decorated with shell inlaid in asphaltum, rare minerals, carvings, and painting.” (Bean and Smith, p. 542) They made a variety of tools including saws, fishhooks and awls, scrapers, knives and drills. Women made decorative baskets from the stems of rushes and grass. The best-known objects from this culture are those made of steatite (soapstone) which was used to make ritual object, pipes, ornaments and cooking utensils.

By 1200 A.D. Gabrielino cultural patterns had been established. About 350 years later, in 1542, the Gabrielinos had a peaceful first contact with Europeans when the Spanish explorer, Juan Rodriguez Cabrillo, journeyed to “Alta California.” By the time the Spanish arrived to colonize, a little over 200 years later in 1769, the Gabrielino population was down to 5,000, already decimated by exposure to new diseases.

The Gabrielinos life and culture left few traces of their existence in terms of material culture and their impact on the landscape. Several Gabrielino settlements have been located in the Pasadena area through archeological artifacts found in an arc that follows the banks of the Arroyo Seco south to Garfias Springs and southeast around Raymond, and along the escarpment to San Marino.

The Spanish, Their Missions and the Gabrielinos

Although Spain claimed Alta California in the 16th century, settlement did not begin for 200 years when the Spanish became concerned that colonial activities of the Russians in northern California and the British in western Canada were a threat. To protect their interests in California, Spain enlisted the Franciscans, a Catholic religious order interested in missionary activities, to colonize Alta California by establishing a series of missions and presidios between San Francisco and San Diego.

Gaspar de Portola was sent by King Charles 11 of Spain to establish missions, presidios and pueblos in the New World. Accompanied by Franciscan friars Juan Crespi and Francisco Gomez, de Portola first encountered the Arroyo Seco in 1770. The next year Father Junipero Serra established the Mission San Gabriel Archangel, the fourth, and the northernmost mission under the protection of the San Diego presidio. Control and settlement of the area was planned to be accomplished through the spiritual conversion and Hispanicization of the Indians. Thus, the Christian imperative of conversion provided the justification for conquest, dispossession and exploitation of the Indians.

Known as the “Queen of the Missions, “ the San Gabriel Archangel stretched from the San Gabriel Mountains on the north to San Juan Capistrano on the south, and from the Los Angeles River on the west to the San Gorgonio Pass on the east. The mission functioned as an organization for two purposes, as the center from which Indians were converted and trained, and as an economic self-sufficient agriculture base. Thus, a large Indian population, as well as the potential for agriculture, were factors in selecting the site for the mission. It was “in the simple and passive act of being present in the San Gabriel Valley and, as such, being an attraction for the Spanish missionaries, the Gabrielino Indians made their most significant, if somewhat intangible, contribution to the future occupancy pattern of the Valley.” (Clayton, p. 22)
The first San Gabriel Mission was relocated, after crop losses due to its siting in a flood plain, to a nearby site in 1775. The Mission’s original log, tule and adobe church was replaced in 1783 by an all-adobe church after which a stone and brick church was constructed in 1805. Although its tower was lost in the earthquake of 1812, the church still stands today in the city of San Gabriel.

The agricultural development of the missions altered the landscape as oak groves and native plants were removed and water diverted to plant the mission lands with oranges and lemon groves, deciduous fruit trees, olives and figs, and fields of wheat, barley and other grains. Herds of cows grazed in rich pasture lands and hogs and sheep were also raised.

Mexico’s independence from Spain in 1821 removed trade restrictions that had up until then been imposed on the Missions. Open trade allowed the Missions to increase their productivity and economic base, and to become a source of supplies for the settlers and travelers along El Camino Real. Over the decades, herds were expanded and greater amounts of crops were grown. Indians began working in the rudimentary manufacturing of candles, soap, shoes, dried beef and saddles. The San Gabriel Mission became so prosperous that it possessed more than 25 percent of the combined assets of all 21 California missions. In order to cultivate this large acreage, the Mission property was subsequently divided into working units called ranchos.

During the late 18th century, mass conversions of Gabrielino villages took place as their chiefs converted to Christianity. By 1800 most of the Gabrielinos had been converted and evolved into a peasant working class. During the first quarter of the nineteenth century diseases took a toll on the Indians and by the end of the century the native population between San Francisco and San Diego had fallen from 72,000 to 18,000. (Rawls, p. 18)

During the subsequent Anglo-American settlement (after 1848), the Indians were viewed as a useful class of laborers, agricultural workers and domestic servants. By the end of the nineteenth century, acculturation and decimation from disease and episodes of genocide had caused the number of Gabrielinos to decline. By 1900 they had ceased to exist as a culturally identifiable group.

The Rancho Period

With Mexican independence in 1821, all Spanish lands in the region were transferred to the new government of Mexico. In 1822 the dismantling of the missions began as the formal secularization of the missions was mandated by Mexico’s California legislature. The missions had never been intended as permanent settlements. The original Spanish plan for the transference of mission lands had included provisions for Indians, but these were not implemented. The Franciscan missionaries were replaced by secular priests. California’s missions were converted to parish churches that retained only the major buildings and limited land holdings.

Under Spain’s Law of the Indies, all lands in the New World territories belonged to the King of Spain. Only 20 land grants were issued during the mission period. Mexico’s colonization policy was more liberal; 500 land grants were made by the Mexican government during the 13 years of its rule. Considering the acreage that was granted, however, individual landholders still reigned over vast parcels. The rancho economy was based on the cultivation of grain and large herds of cattle. Under essentially a feudal system, the Indians were bound to the economic gain of the rancheros. Although nominally free, they could not leave the rancho if they were in debt, and the rancheros kept them in debt.
EARLY ANGLO-AMERICAN
SETTLEMENT AND
URBANIZATION (1848-1890)

Early Anglo-American Settlement
Although the Mexican government discouraged settlement, Anglo-Americans moved into the California territory during the first half of the nineteenth century. Assimilated into the Hispanic culture, they became naturalized Mexican citizens, were baptized as Catholics, adopted Hispanicized names, married into local families and received grants of land from Mexico.

By the 1840s, communications extolling the virtues of California began to appear. Spurred by America’s notions of Manifest Destiny, expansionist sentiments grew. The gates to Anglo-American settlement of California were opened with the Mexican-American War, the acquisition of California as a territory by the U.S., and the discovery of gold in the late 1840s. Under the Land Act of 1851, rancheros were required to obtain confirmation of their land grants. Many experienced difficulties understanding and coping with the newly imposed monetary economy, land taxation and legal requirements and as a result, owners of at least 40 percent of the Mexican ranchos lost their land. The demise of the ranchos was accelerated by droughts in the early 1860s and the subsequent decline of cattle ranching. The subdivision of the ranchos, the initiation of irrigation projects and the development of horticulture and viticulture further intensified use of the land. Three of these ranchos, or portions of them, were to become the City of Pasadena.

Rancho San Pasqual
One of the first Mission ranchos to pass into private ownership was the El Rincon de San Pasqual Rancho, located in the northwestern corner of the Mission San Gabriel (see Figure 1, Map of Rancho San Pasqual and Surrounding Areas). The Juan Marine family was given the land in 1827. After Marine’s death, the land was acquired by Jose Perez and Enrique Sepulveda, who constructed several small houses on the rancho around 1840. In 1843, Manuel Garfias acquired part of the rancho. Garfias built a hacienda and lived as a gentleman borrowing to secure his claim until this caused the loss of the rancho. By 1860 Dr. John S. Griffin and Benjamin Davis Wilson had acquired the land and they used some of property as collateral as they subdivided and sold off other portions of their land.

One of the parcels was sold to Griffin’s sister, Mrs. Albert S. Johnston. Ms. Johnston built a modest house and named the property “Fair Oaks.” Judge Benjamin S. Eaton, Griffin’s brother-in-law, acquired Fair Oaks in 1865. Another 5,000 acres were sold to James Craig, an agent for Alexander Grogan of San Francisco. Craig subdivided the land (naming it Grogan’s Tract) and retained about 150 acres in the eastern portion of the tract where he built an adobe farmhouse. (The house, L’Hermitage, is still located on Monte Vista Street). Another large portion of the Griffin-Wilson lands (north Pasadena) was sold to Henry G. Monk of Boston. By October 1873, Wilson and Griffin had only a small portion left which was surveyed and divided into four separate tracts. Griffin became owner of Tracts 1, 3, and 4 and Wilson Tract 2.

Rancho Santa Anita and Rancho San Rafael
Rancho Santa Anita, east of rancho San Pasqual, was settled by Scotsman Hugo Reid, after he became a naturalized Mexican citizen in 1839 when he married Victoria, a Native American. Reid constructed an adobe which is extant on the grounds of the Los Angeles County Arboretum in Arcadia. In 1858, investors acquired the land and divided the property. The eastern portion (now Arcadia) was sold to William Wolfskill, an early citrus grower, and the western 1,300 acres were sold to a German immigrant, Leonard Rose.

Rose named his ranch Sunny Slope, and planted extensive vineyards and orchards of orange, fruit, and walnut trees. By 1880, Rose had established a successful wine-making and distillery business and Sunny Slope had become a tourist attraction. Rose subdivided a portion of the ranch in the late
1880s and named it Lamanda Park. Located east of the original city, Lamanda Park was annexed by Pasadena in 1906. Rose sold the remainder of Sunny Slope to a British syndicate in 1887.

The Rancho San Rafael was located west of Rancho San Pasqual. Jose Maria Verdugo acquired the land in 1784. It was retained by his heirs into the mid-nineteenth century when it was acquired by creditors; Prudent Beaudry, Mayor of Los Angeles from 1874-76, acquired the area south of Colorado Boulevard and west of the Arroyo, and Benjamin Dreyfus, a German immigrant, acquired that to the north.

In 1883, Alexander Campbell-Johnston and his wife purchased over 2,000 acres from Beaudry, and named it the San Rafael Ranch. A winery was built on the ranch (extant, remodeled into a residence in the 1940s and further remodeled in 1991). The Campbell-Johnston sons continued operation of the ranch until about 1920.

Professor J. D. Yocum also purchased a portion of the Rancho San Rafael in 1883 (the portion that is now San Rafael and Linda Vista). Although he cleared the land and laid out streets, only a few lots sold because of the lack of adequate transportation over the Arroyo Seco. Linda Vista’s growth was limited through the late 19th century.

**The Settlement of Pasadena**

This is Paradise. And the climate? Perpetual summer. (Charles Dudley Warner quoted in Dumke, p. 29) The use of superlatives to describe Southern California’s climate, beauty and potential for wealth and success is deeply rooted in the area’s history. The completion of the transcontinental railroad to San Francisco in 1869 and the subsequent publicity financed by the railroads lured many to seek California’s promise.

In 1873 a group of friends, mostly farmers seeking agricultural land to grow warmer weather crops such as citrus and grapes, in Indianapolis formed the Indiana Colony to purchase land in a warmer climate. Dr. Thomas Elliott and his brother-in-law, Daniel Berry developed the business plan and advertised for participants. Berry’s acquaintance with Southern California was through M. J. Newmark, owner of the Santa Anita Rancho and Judge Benjamin Eaton who invited him to his home at Fair Oaks. Berry began negotiations for the Colony with Eaton but the Panic of 1873 forced many of the original shareholders to withdraw. Subsequently, Berry formed a successor organization the San Gabriel Orange Grove Association (SGOGA). Berry negotiated a deal with Wilson for some of the Rancho San Pasqual and on November 11, 1873, the incorporation papers for the Association were filed.

In January, 1874, the land was surveyed and divided into 100 parcels. Twenty-seven owners selected their parcels and within two weeks the first house was constructed. A water distribution system supplying mountain spring water was in place by May. The name “Pasadena,” thought to mean “Crown of the Valley” in Chippewa, was chosen for the new settlement in 1875.

Within two years more than 40 houses were built and most of the original parcels were sold. Wilson subdivided his remaining tract along with a portion of Craig’s Grogan Tract and named the 2,500 acre parcel the Lake Vineyard Land and Water Company. Within a year, almost 200 lots had been sold and planted with orange groves and other crops.

The town’s developing commercial center, located at Fair Oaks and Colorado became known as “The Comers,” and by 1874 had four stores and a library. Fair Oaks was the dividing street between the SGOGA lands and the Lake Vineyard tract, and Colorado was the major east-west running street. The original colonists were known as “Westsiders,” living west of Fair Oaks, while the newcomers were the “Eastsiders.” By 1880 Pasadena’s population was 382 (Figure 2, 1880 Map of Pasadena). The foundation for the city’s water distribution and road systems had been laid and home construction and profitable agriculture achieved.
The Orange Glow—Agriculture in the Early Settlement Period

The orange is not only a fruit but a romance.

Charles Fletcher Lummis

One of Southern California’s citrus belts is the climactic sub-region that runs along the foothills of the San Gabriel Mountains from Pasadena eastward to San Bernadino. The climate and the orange are what brought members of the “Indiana Colony” to California.

After completion of the transcontinental railroad, oranges could be shipped long distances without spoiling. This greatly increased the marketing potential of the crop. The addition of new transcontinental railroad lines and the technological improvements in refrigeration further enhanced a national market for Southern California oranges.

Wheat and barley were among the first crops planted by the Association’s members. Citrus and vine seedlings which took 10-12 years to mature were set out for long-range crops as were more mature trees. Farmers used irrigation and most of the year the small farmer could work the grove himself. At harvest time Mexican laborers picked and carried the oranges; Chinese laborers made boxes and wrapped the fruit.

By 1875, 10,000 orange and lemon trees, and 150,000 grapevines and olive trees had been planted. In 1880, Pasadena held its first Citrus Fair and in 1881 Pasadenaans exhibited at the Southern California Horticultural Society in Los Angeles. Growers exchanges were established to help growers pool resources, share marketing and distribution channels, and provide technical information. In 1885 the Earl Fruit Company of Los Angeles began buying, packing, and shipping over 250 carloads of oranges a year from Pasadena. The Southern California Orange Growers Protective Union was organized in 1886, and the Pasadena Fruit Growers Association began in 1893. Citrus production remained important to the city’s economic development into the 1890s. By 1891 more oranges were shipped from Pasadena than from any other city in the area. Although oranges continued to be shipped from the City for several decades, agricultural acreage within the city began to decline as more urban uses took over.

The Boom that Ignited Pasadena

The population of Southern California increased at a phenomenal rate after 1870. Historian Carey McWilliams notes that “from 1860 to 1870, the population increased 28%; from 1870 to 1880, 101%; from 1880 to 1890, 212%; from 1890 to 1900, 51.1%; from 1900 to 1910, 147%; from 1910 to 1920, 79%; from 1920 to 1930, 117%.”

Throughout the 1870s and 1880s writers extolled the virtues of the Southern California climate. Charles Nordhoff, one of the first professional promoters for the railroads, proclaimed that “Southern California [is the] finest part of the State, and the best region in the whole United States for farmers” [California for Health, Pleasure, and Residence, (1 873)].

The spark that ignited the land speculation boom of the 1880s was the completion of the Atchison, Topeka and Santa Fe Railway line in 1886 and the company’s fare wars with the Southern Pacific railroad. Between January 1887 and July 1889 more than 60 new towns, mostly on the railroad lines, were platted in Southern California.

The Boom of 1886-87 in Pasadena rivaled that of Los Angeles. During the period 549 plat, replat and addition maps were filed in Los Angeles while 433 similar maps were filed for Pasadena, a city one-tenth Los Angeles’ size. Pasadena’s land prices, which had increased slowly before 1886, skyrocketed. The public school property, at Fair Oaks and Colorado, was subdivided into 35 lots and sold earning a $44,000 profit. By the end of 1886, land was selling for $1,000 per acre. Before the end of 1887, 1,500 acres had been subdivided and the population had increased to more than 6,000 and over 400 new buildings had been constructed.

The development of local, interurban and inter-state transportation fueled continued growth and speculative land dealing. The first local railroad service, the San Gabriel Valley Railroad Company, began service between Pasadena and Los Ange-
The influx of people prompted the development of a substantial business district. Earlier wood frame buildings were replaced by more substantial masonry buildings. Larger buildings, commonly known as "blocks," containing rental space and named after their owners were built. By the end of 1888 at least seven blocks and 15 other commercial buildings had been built on the main east/west street, Colorado Boulevard. The perpendicular streets of Fair Oaks and Raymond also featured several substantial commercial buildings.

The boom created a need for new downtown hotels. The Grand Hotel (also known as the Pasadena House) and the Los Angeles House could no longer accommodate all of the travelers and opportunity seekers. In 1997 the Carleton Hotel, part of the Exchange Block, opened with banquet facilities and ground-floor retail shops.

Housing was needed faster than it could be built during the boom. Temporary tent cities were erected to accommodate many, including the construction workers, who had come to Pasadena. Some of the new residents lived in their barns while their houses were under construction.

Late in 1887 construction slowed, prices declined and interest rates rose. Much of the boom period’s gain had been in paper profits rather than liquid capital. Only the conservative policies of the banks saved the city from economic ruin. The generation of tourism already had an influence on Pasadena’s economic development. Also during the boom, many permanent improvements were laid that provided the foundation for the rapid growth of the City in the 1890s. In 1886 Pasadena incorporated as a Charter City and was given enabling powers to legislate and govern.

PASADENA: HEALTH, TOURIST & SOCIAL MECCA (1890-1945)

The Shift to a Tourist-based Economy

The systematic promotion of Southern California to tourists began in force upon the completion of the transcontinental railroad. Travel entrepreneurs promoted the state’s attributes with descriptive accounts published by newspapers, local booster organizations and enthusiastic residents. Early promotions extolled the climate of the region for its positive affect on health. Nineteenth century medical practitioners believed in the curative powers of climate, especially with respect to tuberculosis and other pulmonary diseases. The first wave of visitors to Pasadena were those who flocked to Southern California in search of a cure for consumption.

By 1880 the nearby foothill area was “one vast sanatorium. “ As the region’s curative nature continued to be touted in literature, more sanitariums and boardinghouses were established. The San Gabriel Valley was dubbed the “Great Orange Belt and Sanatarium” by John Baur in his book The Health Seekers. Pasadena’s reputation as a tourist destination began when early settlers took in invalids and catered to their needs by preparing special foods, reading to them and accompanying them on day trips.

The Promotion of Pasadena

I am enchanted with this place, the fairest spot on earth ... It is heavenly! ... I have traveled the wide world over, but never saw a place to compare with it in attractiveness. It has charmed all my senses. W. J. Florence in Crown of the Valley, Pasadena Board of Trade (1892)

The Pasadena Board of Trade, formed in 1888, became a major force in the city’s development. Organized to “promote and encourage everything that will make our beloved city more beautiful, more healthful morally and physically” the Board defined the city’s urban development pattern through its emphasis on the climatic, scenic and residential qualities and its discouragement of industry. Its strategy was to stimulate and expand tourism with
the hope that “some of the visitors would purchase property, build homes and add prestige and purchasing power.” In 1892 the Board published the promotional Pasadena: Crown of the Valley which described Pasadena and its attributes.

The San Gabriel Mountains offered many recreational opportunities to both tourists and residents. Popular activities included picnicking, horseback riding, hiking, hunting and fishing. One of the earliest and most popular trails, the Mount Wilson trail, constructed in 1864 by Benjamin Wilson, featured tourist camps near the mountain’s summit. David Macpherson, a Pasadena engineer, and Dr. Thaddeus Lowe, a wealthy scientist and inventor, saw the tourism potential in an incline railroad powered by electricity to transport people up the mountains. The Mt. Lowe Railway opened on July 4, 1893 with a route up Echo Mountain just north of Hill Avenue. The cars were dubbed the “white chariots” and the mountains were called the “Alps of America.” G. Wharton James, a prolific and enthusiastic Pasadena writer, was hired as publicist for the attraction. Wharton’s tireless and imaginative writing and promotion helped to make the Mt. Lowe Railway and Pasadena a nationally known tourist destinations.

### Pasadena’s Early Hotels

The seeds of a tourist based economy had been sown even before the Boom of 1886-87. In 1877 the first area hotel, the Sierra Madre Villa, opened. The hotel’s setting in the foothills of the San Gabriel Mountains, its amenities, social events and recreational activities, attracted many prominent guests. Eastern travel agents who sponsored large excursion groups to Los Angeles offered day trips to the San Gabriel Valley which included a visit to the Sunny Slope wineries, Lucky Baldwin’s ranch in Arcadia and lunch at the Sierra Madre Villa Hotel. (The hotel was later converted into a sanatorium which operated until 1923.)

Pasadena’s other early hotels were more modest in scale than the Sierra Madre Villa. The first, the Lake Vineyard House, located in an orange grove on South Marengo Street, began receiving guests in 1880. In 1882 the Arroyo Vista Hotel, located on the edge of the Arroyo opened and Dr. Ezra and Jeanne Carr added a 20-guest boarding house to their Carmelita estate (east of Orange Grove and north of Colorado). A year later a three-story hotel, the Los Angeles House, was built on the northwest comer of Colorado and Fair Oaks and the Pasadena House hotel was constructed on the southwest comer. In 1884 the Ward Block was built with a restaurant and shops at the street level and the Webster Hotel on the upper floors.

Until 1885 travelers to Pasadena had to endure a dusty ride on rough roads. A more comfortable and expeditious way to travel came with the opening of the San Gabriel Valley Railroad which linked Pasadena to Los Angeles and to the east. These improvements in access, along with the many promotions, caused the demand for hotel accommodations to soar. During the boom years, establishments such as the Carlton Hotel (1886) were built in the Exchange Block (north side of Colorado between Fair Oaks and Raymond). In 1887 John J. Painter constructed the three-story Painter Hotel below Monk Hill which featured expansive gardens and a large vineyard. The Painter attracted guests from throughout the country. Later renamed La Pintoresca, the wooden hotel continued operation until it burned in 1912. (The La Pintoresca branch of the Pasadena Library was later constructed on the site.)

A major boost to the tourist industry came when the Raymond and Whitcomb Tours of Massachusetts selected Pasadena as the location of their first West Coast hotel in 1886. Tired of negotiating with hotels, Raymond and Whitcomb decided to construct their own establishment dedicated to the exclusive use of their tour participants. The Raymond Hotel, constructed on a hilltop at the southern edge of the city, featured grounds landscaped by Theodore Payne and a golf course. Many of the “Royal Raymond’s” guests stayed for long periods of time, enjoying the site’s proximity to Los Angeles, Pasadena and the mountains. Numerous social events, including concerts and balls, created an elegant ambiance. The hotel became a mecca for tourists including wealthy Easterners who traveled to Pasadena in elegant Pullman Palace Cars. Although the hotel did not cater to Pasadena residents, the Royal Raymond’s reputation of sophistication and elegance influenced Pasadena’s tourist image. Although the
original hotel was destroyed by fire in 1895, a new fire-resistant stucco replacement was constructed by Raymond in 1901. This “new” Raymond was demolished in the 1930s.

The Era of the Resort Hotels
Pasadena’s era of resort hotels included the development of the Green Hotel at Raymond Avenue and Green Street in 1887. Plagued with financial problems, owner E. C. Webster declared bankruptcy shortly after it opened as the Webster Hotel. In 1890, Col. G. G. Green reopened the hotel, which soon became a social center for Pasadenaans. In 1894 the Hotel Green was expanded into a massive Mission Revival style building; construction of another hotel building in the Moorish style across Raymond Avenue followed in 1898. This annex, designed by architect Frederick L. Roehrig, was linked to the original building by a bridge-arcade. According to Chapin, “no more telling or beautiful picture of Pasadena has ever been used ... than those of the Hotel Green from Central Park, looking across pools of water and showing the two wings, the high Moorish type building and the arch spanning Raymond Avenue.” The Green Hotel continued in operation until the 1960s when it was converted to condominiums.

The Hotel Maryland opened in 1903 on Colorado Boulevard between Los Robles and Euclid Avenues, just east of the business district. Designed by Myron Hunt, it featured elegant shops fronted by a distinctive vine-covered pergola walkway (along Euclid). The Maryland initiated the concept of the hotel bungalow, free-standing, private accommodations, with full hotel services. Although a fire struck the hotel in 1914 an enlarged and more dazzling hotel was designed by Hunt. The hotel’s popularity waned in the 1920s but it continued operations until financial problems resulted in its closure in 1935.

The partially constructed Wentworth Hotel, located in the Oak Knoll area and designed by Charles Whittlesey, briefly opened in 1906. Virtually unoccupied until 1911, Henry E. Huntington hired architect Myron Hunt to complete the hotel. The grounds were landscaped by William Hertrich and bungalows were constructed. The hotel, with its services and accommodations, lush grounds and pool, remained a popular destination for Pasadenaans, as well as tourists, throughout the twentieth century. (It was reconstructed in the late 1980s.)

In 1905 the Vista del Arroyo began its evolution from a boarding house into one of Pasadena’s most elegant and fashionable hotels. Property and buildings were added and bungalows, designed by Myron Hunt and Sylvanus Marston, were built on the hotel grounds over-looking the Arroyo Seco. In the 1920s the Vista was redesigned by the architectural firm of Marston and Van Pelt. It was operated as a hotel until it was taken over by the Army during World War II. The building with its central tower remains a visual landmark on the crest of the Arroyo.

The World’s View of Pasadena: The Tournament of Roses
Pasadena is best known, even worldwide, for its New Year’s Day Tournament of Roses parade and festivities. The first of these annual fetes began on January 1, 1890 and was sponsored by the Valley Hunt Club which was established in 1888. Charles F. Holder, an author and educator, is credited with the idea of presenting a festival to enliven the quiet New Year’s Day “to celebrate, in a poetic and beautiful manner, the ripening of the range, which took place about January 1st. “ While overcoming New Year’s Day doldrums may have been a reason for organizing the event, the primary motivation for the event was to promote tourism. Holder was an active member of the Board of Trade. The Pasadena Star noted in 1889 that “The Tournament of Roses” is a name well adapted to convey to the blizzard-bound sons and daughters of the East, one of the sources of enjoyment which we, of the land of perennial sunshine boast.”

The first Tournament was a success with 250 spectators, which included a large number of guests of the Raymond Hotel. Roses abounded and even carriages and saddle horses were decorated with flowers. A tournament of field sports was held at Sportsman’s Park (Walnut Street east of Los Robles Avenue). As the years progressed the name
“Tournament of Roses” became official and residents of the city were encouraged to join in the parade with Valley Hunt Club members. The event was advertised in both local and Los Angeles newspapers to attract tourists. Bands, equestrians, and floats participated in the parade. A Grand Marshall was selected, and prizes given to outstanding floats. Track events, and horse and bicycle races continued to make up the afternoon contests. The festival grew such that a new organization, the Tournament of Roses Association was established in 1896 to coordinate the annual event. By the end of the century the Tournament had become a major attraction with over 50,000 people attending.

In 1902 the first intersectional post-season college football game was held as part of the Tournament and the football game became an annual event in 1916. In 1922 the Rose Bowl Stadium, designed by Myron Hunt, was built in the Arroyo. By the 1920s the parade included over 100 motor-driven floats, numerous equestrians, marching bands, and a Rose Queen.

Since 1890 the Tournament of Roses has been held every year, except during World War II. While other U.S. communities in warm climates hold holiday parades, none comes close to matching the scope and fame of the Tournament of Roses Parade and Rose Bowl football game. Televised since the 1950s, millions of people around the world cast their eyes on a sunny, green Pasadena ablaze in flowers each New Year’s Day. (Except for years when New Year’s Day falls on Sunday; the Tournament is deferred in those year’s to Monday, January 2.)

The Evolution from Tourist to Resident
The tourism of the end of the nineteenth century was considerably different from that of earlier periods. During the first wave of tourism, visitors stayed in Pasadena during the winter season and returned to their eastern homes for the summer. By the mid-1890s many tourists, enamored by the climate and city, began to purchase land and construct large, fashionable homes for their winter stays. By the late 1890s transportation around Southern California had developed enabling people to easily travel throughout the region. Increasing numbers of tourists began to spend the summer at Southern California beach resorts and Pasadena’s hotels remained open year around.

Pasadena began to attract an increasingly wealthy population. Mansions began to replace the modest homes of Pasadena’s settlers along Orange Grove Boulevard and the demand was so great that by the turn- of-the-century only a few of the original settlers still resided on the street. Orange Grove was dubbed “Millionaires’ Row” as mansions were constructed for scions of industry such as Edwin F. Hurlburt, of Oak Park (Illinois), Henry C. Durand, a Chicago merchant. Other wealthy residents included Adolphus Busch (St. Louis beer millionaire), Lamon V. Harkness (Standard Oil), Mrs. James A. Garfield (widow of President Garfield), and William J. Wrigley (Wrigley’s chewing gum). A second boulevard of mansions developed along Grand Avenue which runs parallel to Orange Grove to the West. Grand Avenue was named the “Fifth Avenue district of Pasadena.”

This demand for fine housing created the atmosphere for design and construction services in excess of that which a typical city of Pasadena's size would require. Architects, artisans and allied businesses were attracted to Pasadena.

Architects practicing during the tourist era included Joseph J. Blick, Leon Brockway, Charles Buchanan, Seymour Locke, Harry Ridgeway, Frederick Roehrig, and George Stimson. The tradition continued in the early twentieth century with Arts and Crafts architects Louis Easton and Henry Mather Greene and Charles Sumner Greene. Contractors of the period included Charles Billings, A. C. Brandt, Robert Foss, Peter Hall, C. M. Hansen and D. M. Renton. As Pasadena developed into a cosmopolitan city the need for architects grew and so the number of architects practicing in the city grew. By the 1920s the list of architects included: Robert Ainsworth, John C. Austin, Cyril Bennett, Roland Coate, Irving Gill, Elmer Grey, Fitch Haskell, Myron Hunt, Reginald Johnson, H. Roy Kelley, Frederick Kennedy, Sylvanus Marston, Edgar Maybury, Wallace Neff, Garret Van Pelt, Theodore Pletsch, Palmer Sabin, George Washington Smith and William Staunton.
Fortunately, promotions by the Board of Trade and Tournament of Roses enticed middle and working class people along with the tourists. The city's reputation as home to the wealthy had created concern because another class was critical to the creation of a stable population and work force. Pasadena needed construction laborers, brick makers, fruit pickers and fruit processors; nearby mansions and tourist hotels offered jobs for cooks, gardeners, chauffeurs and house servants.

Residential patterns generally developed along lines of wealth and color. During the late nineteenth century the southwest part of the city was the province of the wealthy, and middle class populations lived to the north and east of the city center. Most were white. One of the first immigrant groups to arrive in Pasadena, the Chinese, initially settled in the city center; however, anti-Chinese sentiment, prevalent in California during the early settlement period, forced them to move south of California.

By 1910, over 3,000 immigrants representing 24 nationalities had moved to Pasadena. They lived primarily in the commercial-industrial district along Fair Oaks Avenue from Colorado Boulevard south to Raymond. Small lots with modest bungalows and multifamily units intermingled with commercial structures, many of which housed people on the upper floors. One settlement along the railroad tracks near Pico Street, another adjacent to the city dump on South Raymond, housed 90 percent of the Mexican population.

The Great Depression took its toll on Pasadena's tourism industry. Most large hotels struggled and remained open, but others were demolished or converted to other use. The loss of jobs was keenly felt by the working class: domestic workers and retail clerks comprised the largest groups of unemployed.

The tourist industry had attracted a stable residential population to Pasadena between 1890 and 1930 but for the decades that followed, the development of a more diverse economic base became necessary.

CIVIC ENHANCEMENT AND PLANNING IN PASADENA
(1874 - 1950)

End of the frontier: The Beginnings of Suburbanization
By 1890 the U.S. was the world's leading industrial nation. The Bureau of the Census declared that the western frontier no longer existed and by 1920, for the first time, more Americans lived in urban rather than rural areas. Southern California was the twentieth century's boom metropolitan area.

The population of Pasadena was about 5,000 in 1890; by 1900 it had grown to a little over 9,000 while Los Angeles' population was 102,000. By 1910 the population of Los Angeles had grown to 319,000 (about 10% was from annexation of existing developments) and Pasadena's population tripled to over 30,000. The city's acreage doubled as a result of the annexation of North Pasadena in 1904 (population 550) and East Pasadena in 1906. It continued to grow with the annexation of San Rafael Heights and Linda Vista (1914), Pasadena Heights (1916), Annandale (1917) and the Arroyo Addition (1919). While Pasadena's early growth was characterized by the annexation of undeveloped and semi-developed land to the west and north, the thrust of subsequent annexation activity in the 1920s was primarily to the east with its flat developable lands.

Industry flourished in the Los Angeles region after World War 1, and the urban form for which the area is infamous began taking shape. Industrial suburbs offered employment opportunities; and separate residential suburbs emerged. In 1910 88 industries that employed 500 people in Pasadena were listed. By 1920 Pasadena, with a population of 45,000, had 1,000 people employed in the city's 191 industries. In the 1920s the Chamber of Commerce instituted a campaign to attract industry to the city. The Chamber sought to secure only "clean industries" such as textiles, clothing, printers, and
machine tool manufacturing. It touted the city’s low electricity rates and its stable work force as enticements. By 1930 Pasadena’s population had grown to 76,000; yet the city’s industrial base had decreased to 150 companies.

Pasadena’s residential image was solidified in the early twentieth century. The single family detached house emerged as the dominant housing form with open space and yards around the houses. The development of transportation lines allowed the city to expand by annexation, thus keeping population density low city-wide.

**Early City Planning: Infrastructure**

The earliest city planning efforts were concerned with infrastructure elements such as water and illumination. The need for a reliable water supply increased as the city grew. In 1903 the municipal water department was formed. Through the 1920s most of the city’s water came from local wells and streams, especially the Arroyo Seco. In the 1920s Pasadena developed the Pie Canyon Dam (now Morris Dam) in the San Gabriel Canyon. In the early 1930s Pasadena joined with eleven other cities to form the Metropolitan Water District, which financed the construction of the Parker Dam and the Colorado River Aqueduct. Electric street lights operated in the downtown area of Pasadena, including Colorado Street and Fair Oaks Avenue, as early as 1888. Because of the unsatisfactory electric service provided by the Edison Company Pasadena pioneered the development of a municipal electric company in the early twentieth century. Initially dedicated to street lighting, the service was eventually expanded in 1909 to serve commercial and residential customers. City electricity was cheaper and more reliable than Edison’s. A protracted rate war between the city and the Edison Company lasted a decade. By 1920 the municipal company supplied power for the whole city.

**Commercial and Industrial Enhancement and Development**

One of the first city enhancement activities was the paving of the business section of Colorado Street in 1893. A three-block area from DeLacey Avenue to Broadway Avenue was paved with an all-weather surface. This boosted the image of the central business district as a city rather than a town center. As the city grew and as surface and rail transportation improved in the early twentieth century, the commercial center expanded along Colorado and along the north-south cross streets such as DeLacey, Fair Oaks and Raymond.

Secondary streets and a network of alleys were developed to service the buildings along Colorado Street and the commercial district. Service businesses, such as livery stables and blacksmiths, were located on these secondary streets and alleys. The utilitarian masonry buildings evolved to other business uses serving the automobile.

Some citizens recognized that Colorado Street would eventually have to be widened to accommodate the city’s growth and transportation needs. As early as 1900 the Dodsworth Building was set back in anticipation of later street widening. Throughout the decade of the teens other new buildings were set back in anticipation of the proposed widening. The street widening finally took place in 1929, and buildings that were not already set back had their facades truncated and redesigned.

Several small towns and their commercial centers, located along East Colorado Boulevard in the early twentieth century, were subsumed by the city as commercial development grew eastward. The annexed towns included East Pasadena, near Chester Avenue, and Lamanda Park, just west of Sierra Madre Boulevard.

Pasadena’s industrial history dates from the coming of the railroad in 1885. One set of railroad tracks that connected Pasadena with Los Angeles ran up to Colorado Street between Raymond Avenue and Broadway (Arroyo Parkway); another set of tracks followed approximately the same route but curved west at California Boulevard.
Early industries located near the railroad tracks and included fruit packing plants, lumberyards and planning mills. One of Pasadena’s early larger industries was the Pasadena Manufacturing Company (located on Kansas Street near the railroad), a wood milling company started by builder/architects Clinton B. Ripley and Harry Ridgway. The growth of the construction industry spawned other small manufacturing and craftsmen-artisan firms, many of which supplied their products and services throughout Southern California.

Reaction to industrialization led Pasadena to initiate its first zoning regulations. Three industrial zones were designated adjacent to the railroad tracks in 1914 (an area bounded by Marengo to the east and Fair Oaks on the west, running along Broadway (Arroyo Parkway) from the southern city limits north to Green street).

One of Pasadena’s first civic organizations, the City Beautiful Association, recommended that good architectural design be required for industrial buildings. Designs of several outstanding industrial buildings such as the Home Laundry, the Royal Laundry, and the George S. Hunt furniture factory fulfilled this expectation. One Pasadena observer noted, “one significant flowering of our western love of beauty—in spite of our machine-lined path to its attainment—is found in the spontaneous out-cropping of beautiful buildings in what is designated ‘the industrial section.’”

All of the city outside of this area was considered residential, and special permits were needed for any industrial business outside the zone. The industrial zone, however, was not limited to industry. It also contained residences which housed immigrants. Chinese and Japanese communities were concentrated south of California on Raymond and Fair Oaks Avenue. A Hispanic community was located on Arroyo Parkway and west of Fair Oaks. An African-American community was concentrated north of Del Mar and stretched along the Union Pacific railroad tracks north of Colorado. Eventually the African-American community expanded into Pasadena’s northwest area.

City of Gardens

Pasadena’s reputation as a City of Gardens has its roots in the platting of the San Gabriel Orange Grove Association lands. Calvin Fletcher prepared the city’s first plan in 1874 (Figure 3, San Gabriel Orange Grove Association Land, 1874). He subdivided the tract so that all of the lots fronted on the principal north-south street, Park Avenue (now Orange Grove). The lots ran either east to Fair Oaks or west to the Arroyo. Park Avenue traversed high ground with the land sloping off to either side. This main thoroughfare of the Association’s lands provided a scenic panorama. Park Avenue was designed as a boulevard with island parks which were to be planted with orange trees. The street route was angled to accommodate native oak trees. Many other oak trees grew along the banks of the Arroyo where an area along the southwest bank of the Arroyo was used by the community and known as Live Oak Park.

In addition to citrus and other deciduous fruit trees Pasadena’s settlers planted ornamental trees along the city’s streets. Pasadena’s first tourist attraction garden, Carmelita, planned and planted by horticulturist Jeanne Carr included over a thousand citrus trees and a wide variety of other trees and plants. Other notable early Pasadena gardens included Abbott Kinney’s Kinneola and Charles Hastings’ Ranch. Exotic plants and trees became a status symbol and collections of plants were displayed in front yards. Pasadena residents believed that plants and trees were important elements of a beautiful city. Jeanne Carr encouraged residents to plant hedges rather than fencing to define their properties.

Pasadena’s most famous, publicly accessible garden was Busch Gardens. Adolphus Busch, owner of the St. Louis brewery, purchased the Cravens mansion (South Orange Grove Boulevard and Arlington Avenue) in 1902 after wintering in Pasadena hotels for a number of seasons. His 75-acre property sloped west to the bank of the Arroyo and the gardens were developed on the lower 30 acres adjacent to the streambed. Designed by Scottish landscape gardener, Robert J. Fraser, the magnificent garden was resplendent with beds of exotic plants, terraced slopes, picturesque stone
walls and fanciful structures. Winding paths led past fountains and pools. Busch Gardens was opened to the public in 1909 and became an internationally known destination until it closed around 1928. (The property was subdivided in the 1950s.)

Interest in gardening grew in popularity throughout the United States between 1865 and 1915 and was popularized through national magazines such as Suburban Life and House and Garden and newspaper columns written by garden experts. Pasadena supported a number of horticultural enterprises which provided exotic and ornamental plants such as the Coolidge Rare Plant Garden and the West India Gardens.

Organized landscape enhancement efforts in Pasadena began in 1905 when architect Alfred Heineman urged the city to adopt a tree planting program. In 1908 the city officially designated trees for important thoroughfares. Residents could petition to plant a tree type of their choosing on their block. In the first ten years of the program, the city set out over 18,000 young trees. By 1915 the city nursery had an additional 30,000 trees under cultivation, and the Municipal Record, a San Francisco Publication, noted, “Pasadena looks like a forest city from the heights as you look over it.”

The Arroyo was recognized as a community asset as early as 1887 when community leaders proposed making it a public park. It was not until 1911, however, that the City of Pasadena began to acquire Arroyo land; the acquisition by a syndicate of wealthy citizens who bought options on parcels of the Arroyo and held them for the City to purchase. A park was developed in the Upper Arroyo in 1913. It included a playground, picnic area and sports facilities. The next year a municipal “plunge” (swimming pool) was donated by Mrs. E. W. Brooks and the park was renamed Brookside. The Pasadena Garden Club and the Arroyo Park Committee, headed by architect Myron Hunt, brought landscape architect Emil T. Mische to Pasadena to develop a plan for the Arroyo in 1917. The plan recommended that the lower Arroyo be preserved as a natural area and restricted to passive activities such as walking and riding. The upper Arroyo, with Brookside Park, would continue to be developed for recreational activities. In 1922 the city constructed a stadium for the Tournament of Roses football game, later known as the Rose Bowl, designed by Myron Hunt in a horseshoe shape. The structure, later modified to enclose the field, included a football field and a track. A golf course, with a clubhouse designed by Myron Hunt and Harold C. Chambers, was developed north of the Rose Bowl in 1928.

By 1933 the city had 15 parks, comprising over 1,000 acres including the Carmelita grounds, Central Park and Library (Memorial) Park. Other parks included Washington Park and La Pintoresca Park, both designed by landscape architects Theodore Payne and Ralph Cornell.

In addition to Payne and Cornell, a number of renowned landscape architects worked in Pasadena; many resided in the city in the first quarter of the twentieth century. Edward Huntsman-Trout, Paul Thiene, Charles Gibbs Adams, and Florence Yoch and Lucille Council, worked in the city. In addition to doing many residential gardens, Yoch and Council worked with Myron Hunt on the California Institute of Technology campus designing the Olive Walk. Other female landscape architects included Katherine Bashford, Helen Van Pelt, and Beatrix Farrand.

Planning and The City Beautiful: The Civic Center
At the beginning of the twentieth century interest grew in making cities more beautiful and liveable. The 1893 World’s Columbian Exposition in Chicago featured a White City of buildings and boulevards that influenced the future of America’s urban landscape.

Before the twentieth century civic enhancement and beautification, while of concern, were not systematically addressed. As progressive reformers began to direct their attention to the nature of urban elements, city planning emerged. Planners believed that the growth of cities should be purposefully directed and coordinated.
Civic enhancement and planning in Pasadena paralleled national patterns. Pasadena’s early civic improvement endeavors tended to be isolated and reactive rather than based on any plan. These enhancement efforts concentrated on cleaning up streets, vacant lots and the Arroyo, which had been turned into a dumping ground. Progressive women’s organizations such as the Outdoor Art Association promoted development of a plan for streets and the planting of street trees. They also recommended the preservation of natural sites and the establishment of parks. The prestigious Shakespeare Club sponsored lectures by planning proponents and were especially interested in the work of Daniel Burnham, who had helped design the 1893 Chicago exposition.

In the early decades of the twentieth century, Pasadena was a community proud of its residential neighborhoods, but a consensus was growing that the community needed civic buildings of stature. The proposal for a new post office building in 1908 was viewed by some citizens as an opportunity to create a civic center. Although prominent urban planners, Charles M. Robinson and Daniel Burnham, visited Pasadena at that time nothing directly resulted from the visits.

Interest in a civic center emerged again around 1914 and coincided with the upcoming San Francisco Panama-Pacific Exposition and the San Diego California-Panama Exposition. A civic center was seen as the cornerstone of an urbane and cosmopolitan city. A City Beautiful Association was formed with representatives from community organizations including the Women’s Civic League, the Tournament of Roses and the Chamber of Commerce (successor to the Board of Trade). A plan was proposed but its scope seemed beyond the community’s resources.

The vision and abilities of George Ellery Hale were to make a civic center a reality. Hale was interested in the City Beautiful planning movement and was a friend of Daniel Burnham. Hale envisioned Pasadena as the “Athens of the West” and he used his professional and civic reputation, along with his abilities to raise funds and motivate people, to challenge Pasadena residents to create a civic center of international stature. In a 1922 address on “A City Plan for Pasadena” Hale recommended that a city Planning Commission be appointed with its first task to be the preparation of plans for a Civic Center. The Commission was established with Hale as a founding member.

Within a month, the Planning Commission directed the hiring of the successor firm of Daniel Burnham, Bennett, Parsons and Frost of Chicago, to create a plan for Pasadena. The plan included a civic center located on two axes, Garfield and Holly Streets, to take advantage of buildings already in place—the 1915 Post Office, the 1911 YMCA and the YWCA (1922).

Recognizing the growing importance of the automobile, Edward Bennett proposed two major automobile entrances to the city with the western entrance at the Colorado Street Bridge, and the eastern entrance at Lamanda Park. Crossing the bridge, the motorist would see panoramic views of the Arroyo Seco with the San Gabriel Mountains as the city’s backdrop. A broad tree-lined boulevard would take the driver past the memorial flagstaff and an art museum. Farther east would be a monumental City Hall, the heart of the Civic Center. He also suggested widening and cutting through Green and Walnut Streets to create additional east-west arteries in the city center. Landscaped medians along major auto routes were also proposed. Central to the plan were Pasadena’s residential character and its garden nature. He also suggested changes to the zoning ordinance that would limit population growth.

The Civic Center portion of the plan was adopted by the city’s Board of Directors, and in 1923 a bond issue was approved to construct three buildings, a city hall, a library and a civic auditorium. A competition was held to select architects for the buildings. The San Francisco firm of Bakewell and Brown were selected to design the City Hall (1927), Pasadena architect, Myron Hunt, the Central Li-
Appendix

George Ellery Hale played an instrumental role in planning the California Institute of Technology campus. Hale convinced nationally known architect Bertram Goodhue to develop a plan for the campus. An initial plan had been developed by the Pasadena firm of Hunt and Grey. In 1916 Goodhue created a master plan for the campus combining “a model of campus planning and a distinctive new style.” In 1921 Goodhue’s first campus building, Bridge Hall of Physics, was constructed.

With the creation of the Civic Center, Pasadena’s commercial center continued to move eastward along Colorado Boulevard. After World War I, Pasadena’s business community experienced another burst of prosperity, with its focus along Lake Avenue, spurred by the construction of an auto-oriented, suburban department store, Bullocks, in 1947.

ART, CULTURE AND SOCIETY IN PASADENA (1890-1950)

Pasadena’s Cultural and Social Life

One of the first organized groups to promote culture and education was the Pasadena Library and Village Improvement Association begun in 1882 under the guidance of Abbott Kinney. The organization had dual goals: to establish a library and to foster discussion on a range of topics. Pasadena’s first library opened in 1884 and in 1887 the first substantial library building was constructed at Walnut Street and Raymond Avenue. The library grew rapidly after the turn-of-the-century, under the direction of librarian Nellie Russ, and in addition to housing books, the library acquired museum quality artifacts and collections. Branch libraries were opened in 1908 (North, later known as La Pintoresca), 1910 (East), 1913 (Northeast station), and in 1922 (Lamanda Park). In 1927 a new Central Library building was constructed as part of the Civic Center.

Pasadena’s earliest cultural life centered around Carmelita, the home and gardens of Dr. Ezra and Jeanne Carr who hosted a number of writers including Helen Hunt Jackson and John Muir. Jeanne Carr wrote articles on subjects such as horticulture, conservation, botany, American Indians, and history. Other late nineteenth century authors attracted to Pasadena were Margaret Collier Graham, Abbott Kinney, Charlotte Perkins Gilman and Charles F. Holder. In the first quarter of the twentieth century Pasadena was home to authors such as Upton Sinclair and Robinson Jeffers.

Churches provided a foundation for Pasadena’s spiritual needs as well as providing a center for social activity. The first church services were held in private homes. Within two years of the city’s founding, Pasadena’s first church had been established. The First Presbyterian Church, located on California Street, was shared with Congregationalists and Methodists for a period. By the 1880s most of the major Christian denominations and organized churches had established congrega-

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tions in Pasadena. By the turn-of-the-century there was a church in Pasadena for every 1,000. In addition to ministering to spiritual needs, the churches functioned as community centers and neighborhood anchors. In his 1933 profile of Pasadena John McGroarty noted: “Pasadena’s church edifices are among the finest in Southern California, and the clergy includes men who rank among the leaders in their church groups. There are in the city over seventy churches, representing virtually all denominations.”

As the city grew in stature so did many of its clubs. Women’s groups, such as the Shakespeare Club and the Outdoor Art Association, advocated civic enhancement and the arts. The clubs sponsored lectures by experts on a variety of topics. Some, like the Shakespeare Club, had their own club buildings. Men’s literary and social groups included the Tuesday Evening Club and the Twilight Club, as well as traditional fraternal organizations such as the Masons, the Elks and the Scottish Rite.

Individuals were active in establishing artistic and cultural organizations. George Ellery Hale helped to found the Pasadena Music and Art Association (1912), which brought the Los Angeles Philharmonic and other well-known concert artists to Pasadena. Pasadenaans supported a thriving community of artists in the early twentieth century. The Stickney Memorial School of Fine Arts (which was located in the Shakespeare Club building on Fair Oaks and Lincoln) included as instructors many of Pasadena’s most accomplished artists, such as Guy Rose, Jean Mannheim, and Alson Clark. The school also sponsored a Beaux Arts atelier for architects.

At the turn of the century many artists, especially landscape painters, were drawn to Pasadena’s scenic and rustic beauty for inspiration. The resort economy along with the city’s wealthy population provided market opportunities for artists. Painters including Benjamin Chambers Brown, Franz Bischoff, Alson Clark, Jean Mannheim, Elmer and Marion Wachtel, Guy Rose and sculptor Alexander Stirling Calder all lived and worked in Pasadena at one time or another. In 1924 the Pasadena Art Institute in Carmelita Park was established.

One of the most interesting, and eclectic cultural institutions of the city was Grace Nicholson’s residence and gallery built in 1926. The building, on North Los Robles, was designed in the “Chinese Treasure House” style, by Marston, Van Pelt and Maybury, to showcase Nicholson’s collection of Oriental art. The building also functioned as a center for the arts where art instruction was given.

The performing arts were also an integral part of Pasadena’s cultural experience in the early twentieth century. Pianist, Alice Coleman Batchelder, founded the Coleman Chamber Music Association. Other musical organizations included the Pasadena Music and Art Association, the Cauldron Singers, the Musical Arts Theater, the Musical Study Club, the Pasadena Choral Union, the Schubert Choralists, and the Women’s Choral Club.

A major theatrical performing arts venue in the city was incorporated as the Community Playhouse Association in 1917 with Gilmor Brown as the director. The original playhouse troupe combined a group of traveling actors with local amateur actors. Over the years the Playhouse evolved to become a major regional theater educating theater professionals. In 1925 the Association moved to a new building on South El Molino Avenue, which was designed by Elmer Grey and named the Pasadena Playhouse.

Pasadena’s Arroyo Culture

Kevin Starr observed that the turn-of-the-century Los Angeles region “had little in the way of formal culture in comparison with, say, fin-de-siecle San Francisco” yet Pasadena was developing as a cultural nucleus. Pasadena’s wealthy residents were a source of patronage for social, artistic, civic and cultural endeavors and institutions. A lifestyle of the Southland was emerging. Steeped in the romantic myths of Southern California and popularized in regional publications such as Charles Fletcher Lummis’ Land of Sunshine/Out West, many pursued the “pleasures of the genteel tradition—art, music, painting, history, literature—and of course, the outdoors.” (Starr, p. 101).
Pasadena was one of the major Arts and Crafts centers in the United States. Many artists and artisans lived on the slopes of the Arroyo Seco were proponents of the Arts and Crafts movement, became known as the “Arroyo Culture”. In the Arroyo Culture, life and aesthetics of nature were entwined. Its influence was the Arts and Crafts Movement which originated in England in response to a growing disillusionment with industrialization and its concomitant social conditions.

In the late nineteenth century, the Arts and Crafts movement began with Englishman William Morris who adopted and lived his life based on philosophies set forth by John Ruskin and Thomas Carlyle. Morris' concern for beauty and quality led him to form a community of artisans who produced design objects that were crafted based on the system of medieval values and design.

The United States' Arts and Crafts movement grew out of the progressive reform movement. The guiding principle was simplicity and a move away from conspicuous consumption. The movement also revered nature and drew upon natural elements and forms to inspire decorative motifs.

Southern California and Pasadena provided a fertile ground for Arts and Crafts ideals. Regional interests in California missions and the influence of southwest Indians also were inspiration for the movement. The followers were artists and intellectuals, and new California immigrants seeking new ideas and lifestyles. A notable member of the Arroyo Culture was Ernest Batchelder, a ceramist/tile-maker and faculty member of Throop University’s Department of Arts and Crafts, who wrote The Principles of Design.

The most obvious manifestation of the Arts and Crafts movement was the Craftsman bungalow. Rather than shroud a building with superfluous decoration emblematic of the industrialization era, the building’s form was to be revered. The ideals of craftsmanship and honesty were expressed in the building form.

Architects Charles Sumner Greene and Henry Mather Greene played a leading role in establishing Pasadena the epitome of the Arts and Crafts movement. They “favored simplicity and solid thought, touched by the aesthetic.” (Starr, p. 101) Historian Starr observes:

Influences on the Greenes were eclectic, but all influences led them in the direction of aesthetic functionalism. 'I seek till I find what is truly useful,' said Charles Sumner Greene, 'and then I try to make it beautiful.' ...the Greenes absorbed a sense of architecture as deliberate social statement. Their homes, like Pasadena, were metaphors of an America brought to liberality, simplicity, and taste.

The Greene brothers came to Pasadena in 1893 and opened an architectural practice in 1894. Around 1904 the Greenes emerged as master interpreters of the Arts and Crafts movement with their individualistic designs. The Greenes “imaginatively combined massive exposed timbers, natural wood shingles, clinker brick and boulders from the Arroyo. “ They linked the indoors with the outdoors by designing sleeping porches, verandas, and landscaped gardens (the “outdoor” rooms of Southern California). Their concern for the total aesthetic environment led them to design interior spaces. They combined superb craftsmanship and design with high quality to create outstanding designs, and their work gained national recognition.

Pasadena boasted many other architects and contractor-builders who embraced Arts and Crafts ideals and translated them into houses. These designers included Alfred and Arthur Heineman, Louis B. Easton, Sylvanus Marston, Frederick Roehrig, Norman Foote Marsh, and Charles Buchanan and Leon Brockway.

**Pasadena’s Regional Architecture**
The development of Southern California bungalow communities was driven by the mythology of Southern California’s paradise that promoted the American Dream of a home and yard set in the region’s mild and luxuriant climate.
The bungalow was an architectural form that offered affordable housing for single families. The bungalow, the basic form of a one-story, free-standing, single family dwelling, came from Bengal where the word “bangla” refers to both the region and a dwelling type. Bungalow historian Robert Winter notes “the major characteristic of the bungalow was that it accommodated all the functions of living—recreation, dining, bathing, sleeping, preparing food, and eating—on one floor."

The bungalow became an extremely popular housing form in Southern California, as it did elsewhere in the country were communities required modern, affordable, easily constructed housing. The form was proliferated through the publication of pattern books which provided building plans and elevations and catalogs which offered “mail order” product dwellings. National coverage of Craftsman style bungalows further popularized the building form. In Pasadena bungalows were built in many of the city’s neighborhoods in the early twentieth century. They provided infill in already established neighborhoods and some new neighborhoods consisted mostly of bungalows.

Although they were most often constructed as single-family detached dwellings, the bungalow form influenced development of the bungalow court or courtyard dwelling form. Rather than a single house, a set of small dwellings were placed around a court, occupying a single parcel of land. This multifamily form fit into the pastoral ideal of the California dream, that of the detached home. Each of the buildings had their own entry and porch, many featuring a symbolic gable or entry hood to distinguish it as a private residence.

Throughout the first quarter of the twentieth century Pasadena was graced with more architects than the typical residential community of its size. The resort hotels and the concomitant wealthy population provided a base of patrons for architects to develop. By 1920 the Craftsman bungalow had run its course as a stylistic preference. Period revival styles such as American Colonial, Tudor, and European revivals became popular residential styles.

Some Pasadena architects, however, were looking for a new expression rooted in regionalism. A new style, with influences of Mediterranean architecture, was developed in Pasadena and Southern California in the 1920s. This style incorporated California and Mexican traditions with these Mediterranean elements. It looked to vernacular country architecture to create informal, liveable houses suited to the Southern California climate and lifestyle. Pasadena and Santa Barbara emerged as centers of the California Mediterranean style. Pasadena based architects who designed in the style included: Reginald Johnson, Myron Hunt, Wallace Neff, Roland Coate, Garett Van Pelt, Sylvanus Marston, Donald McMurray, and Gordon Kaufmann.

Pasadena’s growing tradition of high quality architecture, and its client base of patrons seeking exceptional architecture, nurtured its local architects. Nationally known architects such as Frank Lloyd Wright and Bertram Goodhue also added to the quality and innovation of architecture in the City.

**Pasadena after the Depression**

During the Depression many of Pasadena’s mansions, especially those on Orange Grove Avenue, were abandoned or converted to rooming houses. In 1948 Orange Grove was rezoned for apartment development under strict setback, density and landscaping requirements.

In general, however, Pasadena’s architectural character remained stable throughout the Depression and World War II years as evidenced by its population gain of only 7,000 between 1930 and 1940. However, a burst of growth occurred between 1940 and 1950 when Pasadena experienced a population increase of 22,000. New tracts were opened for development including Alhendale, Upper Hastings, Kinneloa and in the San Rafael and Linda Vista areas where dwellings were constructed to fill housing needs.
EDUCATION AND SCIENCE IN PASADENA (1874-1950)

The Schools of Pasadena

The heart and soul of a literate community is in its schools. Pasadena’s first school opened in one room of the Clapp residence in 1874 with two students. Within a month increased enrollment forced the need for a school building. By 1879 the Central School had been outgrown and a new two-story school building was constructed. As the population grew to the north and east two new schools were built, the Washington School at Monk Hill, and the Grant School on East Colorado. In 1886 the Central School lots at Colorado Street and Fair Oaks Avenue were sold to raise money for another expansion. Its replacement school, the Wilson School, was constructed at Marengo and Walnut Streets. In 1884 the Lincoln School was built in North Pasadena to be replaced just four years later by another Washington School. The Garfield School was built on West California Street at the end of the century.

The Wilson School which added high school classes in 1887, graduated its first class in 1890. In 1904 construction on the Pasadena High School began; but even before the school was opened its enrollment passed its capacity. Eight years later a second Pasadena High School was built at East Colorado and Hill Streets. Separate schools, the Raymond Avenue School and the Fremont School, were established for Spanish-speaking children. Public school expansion occurred again in the 1920s with new buildings for Washington Elementary and Junior High schools, the McKinley School, the Daniel Webster School, and the Pasadena Vocational School (now Muir High School). In 1924 a junior college was established in the Pasadena High School. This lead to a reorganization of the curriculum to one of six years of elementary school, four years of junior high school, and four years of high school-college. The system, which brought national recognition to Pasadena for innovative education, integrated college courses into the public schools.

A number of private schools were established in Pasadena. Among the earliest were the Classical School for Boys, established by Stephen Cutter Clark in 1889 on South Euclid. On the same street the Orton Classical School for Girls was founded by Anna B. Orton in 1890. Later private school included Polytechnic Elementary and High School, Westridge, and University. Parochial schools were also established in Pasadena during the 1930s.

The area’s first college was the Sierra Madre College founded in 1884 and located south of Pasadena on Columbia Hill. While the school struggled financially and lasted only two years it attracted several educated faculty members to the community and created an interest in higher education. Another early college was the Pasadena Academy begun by Professors M. M. and C. M. Parker in 1883. In 1891 M. M. Parker merged the Academy into the new polytechnic institute, called Throop University, that was founded by Amos G. Throop. The school’s philosophy was based on Chicago educator John Dewey’s adage “learn to do by doing.” The school occupied a portion of the Wooster Block at East Green Street and South Fair Oaks Avenue. The co-educational school was renamed Throop Polytechnic Institute in 1893, and a new building was constructed at North Fair Oaks Avenue and Chestnut Streets.

Although enrollment grew to over 400 in 1907, the school was functioning more as a secondary school which offered some college level courses. Led by Dr. George Ellery Hale, a trustee of the school the decision was made to discontinue preparatory classes and to develop the school exclusively as a college of science and technology on an East California Street site that was purchased in 1905. Throop Hall, the first building, designed by Myron Hunt and Elmer Grey, was constructed in 1910. Hunt and Grey also developed a master plan for the campus.
Prestigious scientists, such as Amos Noyes, an NUT chemist, and physicist Robert Millikan of the University of Chicago, were attracted to the school. The school developed into a specialized scientific institution of higher education. In 1921 the name, California Institute of Technology, or Caltech, as it has been more fondly known, was given to the school.

The Growth of Pasadena's Scientific Community
The first known major scientific endeavor in Pasadena occurred in 1889 when Dr. Pickering of the Harvard Observatory visited Mount Wilson since the site and climate provided an ideal location. Pickering announced plans to install a photographic telescope. A misunderstanding regarding the land led to the dismantling of the telescope, and its being relocated to Peru 18 months later.

The suitability of Pasadena’s nearby mountains for serious scientific inquiry led to the establishment of the Mount Wilson Solar Observatory in 1908. George Ellery Hale came to Pasadena in 1903 to make plans for the observatory. Working under the auspices of the Carnegie Institution, Hale proposed the installation of both a solar observatory and a 60-inch stellar telescope. He developed an instrument shop on West Union Street to fabricate the equipment. The shop was moved in 1905 to Santa Barbara Street on land donated by the city, and construction of the telescope was begun. The project brought many scientists, astronomers, engineers, and laboratory technicians to the city. In 1908 the reflecting telescope was installed; and after a number of years of regrinding the mirror, a 100-inch refractory telescope was installed in the observatory in 1917. The new observatory attracted scientists from around the world.

George Ellery Hale is noted for creating and nurturing Pasadena’s scientific community. He gained the support of industrialists such as Charles Yerkes and Andrew Carnegie to underwrite scientific projects. As a member of Throop Polytechnic’s Board of Trustees, he was instrumental in redirecting the school’s evolution into a world renowned scientific institution. He worked ceaselessly to lure prestigious academics and administrators to the California Institute of Technology (Caltech) and he persuaded philanthropists to endow the university.

During the 1920s and 1930s Caltech matured into an internationally known scientific research institution developing departments of physics, aeronautics, biology and seismology. The university attracted scholars such as Niels Bohr, Paul Dirac, and Arnold Sommerfeld, and the world-renowned, Albert Einstein. During the twentieth century several faculty members of Caltech or those who had been educated at Caltech were Nobel Prize winners. In 1923 Caltech President Robert Millikan received the Nobel Prize for research on splitting of the atom. One student of Caltech’s seismology department, Charles Richter, was to become a household name especially in Southern California. Richter was the inventor of a scale which measures earthquake magnitude.

Rocket propulsion studies conducted at Caltech in the late 1930s and 1940s lead to the development of the Jet Propulsion Laboratory. In 1936, Theodore von Karmen, Frank Maline and John Parsons conducted a series of experiments on rocket propulsion responding to the pre-World War II military buildup which led to a need for research and development of jet propulsion technology. The successful formulation of solid fuel and liquid fuel for jet-assisted take-offs resulted in funding that in 1943 led to the founding of the Jet Propulsion Laboratory.

Over the decades Caltech attracted scientists and students to Pasadena. Many of them remained in the city providing the area with a pool of highly trained engineers and scientists and a number of related research and development businesses.
TRANSPORTATION
(1885-1950)

Transcontinental Transportation
Pasadena's evolution into a city in the late nineteenth century began with the coming of the transcontinental railroad. The Atchison, Topeka and Santa Fe Railroad broke the statewide monopoly held by the Southern Pacific Railroad. The Santa Fe, which had rail lines cutting south westward from the east had tracks in California to San Bernadino. One of Pasadena's first local railroads, the Los Angeles and San Gabriel Valley Railroad (LA&SGV), had built tracks to San Bernadino. In 1885 both the Southern Pacific and Santa Fe railroads vied to purchase the LA&SGV Railroad. It was sold to the Santa Fe, thus opening a direct rail service from Chicago to Pasadena. Later the Union Pacific (originally the Salt Lake Railroad) followed with a route into the city.

Streetcar, Interurban Transportation and Suburban Development
There is a “close American relationship between land speculation and the construction and location of streetcar tracks.” Urban historian Kenneth Jackson notes that often “transit tycoons were less interested in the nickels in the fare box than they were in their personal land development schemes. They learned quite early that transit access would make undeveloped farmland attractive to potential commuters and thus raise its value.” (Crabgrass Frontier; The Suburbanization of America, p. 120) The development of streetcar and interurban transit lines transformed Pasadena as access to outlying areas occurred.

At the peak of the boom of the 1880s development spread out from the city’s original southwestern commercial and residential core. In 1886 the mule-drawn Pasadena Street Railway began operating a line from South Orange Grove to Colorado. Several other horse-drawn street railways opened during the decade including the Colorado Street Railroad Company. This route ran along Colorado from Fair Oaks east to Lake Avenue. Other routes connected central Pasadena with Altadena and the foothills (Figure 4, Pasadena Horsecar Lines, 1886-1898).

When Pasadena's local railroad connection to Los Angeles was acquired by the Santa Fe, the service was directed to transcontinental uses. To provide needed reliable local service to Los Angeles, the Los Angeles, Pasadena, and Glendale Railroad was founded in 1890. Later renamed the Terminal Railroad it was extended south of Los Angeles to Wilmington and the harbor, where boat service was provided to Catalina Island. Infrequent service prompted interest in an electric interurban trolley system.

Southern California's inter-urban service that made land accessible contributed to development patterns in the Los Angeles basin. Tied inextricably with subdivision and development, the routes of the inter-urban fostered the development of low density residential neighborhoods. New nodes of commercial development emerged along transit routes to serve the residents of outlying subdivisions. The routes of the earlier inter-urban lines became the foundation of the region’s twentieth century roads and freeways.

Pasadena's electric railway began operations in 1895 to Los Angeles with the Pasadena and Los Angeles Railway (P&LA). The company reorganized in 1897 as the Los Angeles and Pasadena Electric Railway (LA&PE). With its new headquarters in Pasadena the company provided 100 jobs. The LA&PE converted remaining horsecar lines, introduced a package express service, and created new routes (Figure 5, Pasadena Early Electric Lines, circa 1902). In 1896 Moses Sherman and Eli Clark acquired several defunct horsecar and steam car lines and created the Pasadena and Pacific Railroad Company.

The major electrification of rails in Southern California occurred under the direction of Henry E. Huntington. He saw great financial opportunity in the manipulation of property values and he began to acquire existing electric railways including...
Pasadena's Los Angeles & Pacific Railroad in 1899. In 1901 Huntington's lines were merged into the new Pacific Electric Railway Company which also acquired the Pasadena and Mount Lowe Railroad. The Pacific Electric built lines to Long Beach, San Bernadino and Santa Barbara.

Huntington also founded the Pacific Light and Power Company to ensure an adequate supply of electricity for his line and his land development. The Huntington Land and Improvement Company was the core of his subdivision activities. As he purchased land and subdivided it, the electric inter-urban line was extended to the development, and electricity was supplied to the properties. He opened vast tracts of land to development throughout Southern California.

The "red cars" of the Pacific Electric began operating in Pasadena on the east/west streets of Colorado, Villa and Columbia and north/south streets of Fair Oaks, Lincoln, Raymond, Broadway, Los Robles, and Lake. In 1906 Huntington built the "Wentworth Line" through Oak Knoll, a tract of land owned by Huntington (Figure 6, Pacific Electric Lines in the Pasadena Area).

New automotive technology introduced new modes of public transportation. In the mid-teens independent jitneys cruised the streets of Pasadena picking up passengers. Small, independent bus lines also operated until they were bought out by the Pacific Electric in the mid-1920s when they introduced supplemental bus lines.

The most majestic of Pasadena’s bridges, the Colorado Street Bridge, opened in 1913. This graceful arched bridge was engineered by John Alexander Low Waddell, one of the foremost bridge architects of the period. John Drake Mercereau, who constructed the bridge, provided the curving design in order to avoid soft footings. The bridge was proclaimed to be “the highest concrete bridge in the world” as well as being “one of the few bridges that can properly be classified as a work of art.”

In 1914 the Parker-Mayberry Bridge and dam replaced the Scoville bridge. It was engineered by Parker and Mayberry, and designed by Myron Hunt. In 1922 the San Rafael Bridge was built followed by the Holly Street (Linda Vista) bridge in 1924. A total of seven bridges were built to cross the Arroyo. The bridges were designed in the tradition of the Colorado Street Bridge with graceful architectural forms and ornamentation and decorative light standards.

The Automobile and Suburban Development
Coursing over the wide stretches of macadam road ... motorists find much to attract them in the way of pretty scenery, adequate hotels, country clubs, handsome residences, and withal a sheet-anchor ready for the engineer in the shape of telephones and repair shops.

Hilda Ward in Suburban Life (1907)
The automobile first appeared in the United States in the 1890s. In 1898 there was only one automobile in operation for every 18,000 Americans. The early machines, a hybrid of a bicycle and buggy, were limited to the wealthy and adventurous since they were both expensive and challenging. Few roads were paved, especially between communities, most were little more than dirt paths. There was no system of highway numbering or traffic controls. Early touring books published by Rand-McNally and other firms guided motorists using physical landmarks for navigating. Auto serving businesses were scarce. In 1903 W. Eno published
his Rules for Driving recommending driving procedures such as passing, signaling, and speed; he also recommended traffic signage. As early as 1904 California citizens were lobbying for the development of a state highway system featuring a permanent highway running the length of the state.

Pasadenans were concerned about their roads even before the automobile became the preferred mode of transportation. In 1899 the Better Roads Society urged the city to grade and crown the streets. The city’s first paving was done on a three block length of Colorado at the turn-of-the-century. By 1906 six miles of streets had been asphalted. In 1930 over 600 miles of streets within Pasadena were paved.

Pasadena’s first Automobile Club was formed in 1903. It worked to promote better roads and organized auto runs to Riverside, Santa Ana and Santa Monica. The Star published the first “Automobile and Good Roads” edition in 1903.

The infant automobile industry was represented after the turn-of-the-century in Pasadena included the Hodge Brothers “original automobile station” and the Pasadena Garage Company. A small, electric car industry in the City included the Waverly Electric company. Automobiles were also manufactured in Pasadena by Waldemar Hansen, who designed his own gasoline engines. By 1909 he was making and selling the H and W Runabout, a four passenger car. The Walter Murphy Company built Duesenbergs until the mid-1930s.

Architectural design was also beginning to accommodate the car. The renovation of the Huntington Hotel included the addition of a porte cochere entrance for guests arriving by auto. Pasadena’s wealthy population could easily afford the early automobiles, but it was Henry Ford’s Model T that popularized the auto in the city and elsewhere. Ford developed a dependable, easy to operate, and simple to repair auto at a price that many Americans could afford. By 1915 there were over 5,000 automobiles in Pasadena.

The 1920s were a time of many improvements in automobile travel. The low pressure pneumatic tire was developed. Cars were more numerous, faster and larger. Directional signals and traffic controls were installed. Roads were more highly engineered, curbs were pushed back and streets widened. The federal government began to offer matching funds for road development and the Bureau of Better Roads was established to plan a highway network. Soon transcontinental travel was taking place on all-weather highways.

Route 66, “America’s Main Street,” traversed Colorado Boulevard on its way through Pasadena. The automobile reinforced Colorado Boulevard as Pasadena’s Main Street, with its commercialism and its image as a ceremonial corridor. Route 66 was the primary east-west automobile route connecting Chicago with the Pacific Ocean in Santa Monica. According to historian McWilliams, “The great migration into Southern California from 1920 to 1930 was ... the first migration of the automobile age. In 1923 and 1924 a one-way stream of automobiles could be seen moving westward. “

(p. 135)

Route 66 became a symbol of American restlessness, mobility and opportunity. Memorialized in literature, song and folklore, hundreds of thousands of travelers got their “kicks on Route 66. “ Tourist-serving businesses, many in buildings programmed for auto-serving functions developed. This roadside architecture included service stations, restaurants, motor courts and tourist attractions and was designed to catch the eye of the speeding motorist.

Early “tourist camps” were provided by communities or private businessmen for motoring tourists. In Pasadena the “Cottage Auto Camp” and the “Oak Park Auto Camp” were located on the eastern banks of Eaton Wash in 1925. Subsequently cabins and cottages provided more adequate accommodations. Pasadena architect, Arthur Heineman, is credited with developing the concept of the motel. He adapted the bungalow court form to create “The Milestone Motel” in San Luis
Over the ensuing decades motels sprung up all along Route 66 between the 1930s and 1960s. Most of these were “mom and pop” businesses.

The automobile changed the form of the city. New building types, such as filling stations, garages and showrooms, were constructed for auto-serving businesses. Some of these businesses in Pasadena included the Crown City Automobile Company, Tanner Motor Livery, the Frank Dorn Auto Repair Shop, and Burroughs Motor Works. Streets were designed and redesigned to accommodate auto vehicle traffic. As an auto-oriented commercial corridor Colorado Boulevard became a natural location for auto showrooms designed in a myriad of exuberant styles to showcase each manufacturers' models.

Residential and commercial developments were both shaped by the automobile. By the 1920s most streets were seen primarily as arteries for motor vehicles. Prior to the auto, residential developments had to be located relatively close to public transportation lines. By the 1920s more people could fulfill the ideal of life in a single-family home in a neighborhood of detached houses, private yards, and tree-lined streets. As a result the distinction between residential and commercial, between home life and work life, grew sharper.

Residential partitioning was enforced by the adoption of zoning ordinances specifying building standards and lot controls. Commercial zones began to string out along major commercial routes rather than clustering around transportation nodes. From this the automobile-oriented commercial strip emerged.
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