



# Design Guidelines for Residential Historic Districts

with the  
**Secretary of the Interior's Standards for Historic Preservation**

Adopted August 2013



Prepared for the City of Boise Historic Preservation Commission by

McKibben + Cooper

with

Todd Maguire, LEED-AP and Diane Kushlan, AICP

With Sustainability Content Added by Winter & Company, 2011



# Disclosure

This document has been financed, in part, with federal funds from the National Park Service, U.S. Department of the Interior, and administered by the Idaho State Historical Society.

This program received federal financial assistance for identification and protection of historic properties. Under Title VI of the Civil Rights Act of 1964, Section 504 of the Rehabilitation Act of 1973, and the Age Discrimination Act of 1975, as amended, the U.S. Department of Interior prohibits discrimination on the basis of race, color, national origin, or disability or age in its federally

assisted programs. If you believe you have been discriminated against in any program, activity, or facility as described above, or if you desire further information, please write to:

**Office of Equal Opportunity**  
National Park Service  
1849 C St. NW  
Washington DC 20240

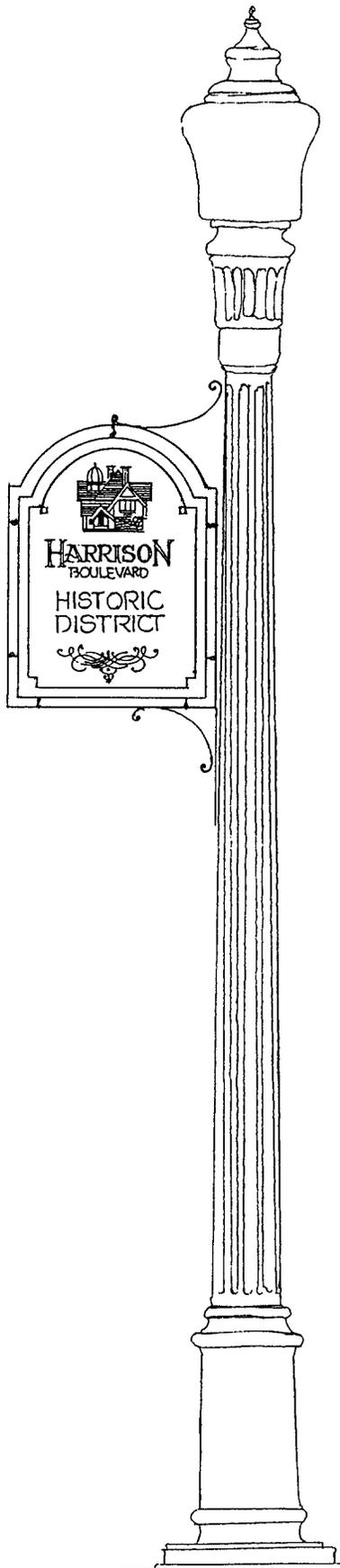
This project has been funded in part by a grant from the Pacific Northwest Preservation Fund of the National Trust for Historic Preservation



# Table of Contents

- Chapter 1: Introduction.....1**
- Chapter 2: Guidelines for Residential Historic Districts.....6**
  - 2.1 Warm Springs Avenue Historic District ..... 7
  - 2.2 East End Historic District..... 9
  - 2.3 Harrison Boulevard Historic District ..... 12
  - 2.4 North End Historic District ..... 15
  - 2.5 Hays Street Historic District..... 18
- Chapter 3: Common Styles, Basic House Treatments, and Sustainability of Existing Buildings .....21**
  - 3.1 Common Styles in the Districts ..... 21
  - 3.2 Suggested Treatments for Basic Elements of the Historic House..... 27
  - 3.3 Sustainability ..... 31
    - 3.3.1 Developing an Efficiency Strategy for a Historic Property ..... 35
    - 3.3.2 Landscape and Site Improvement Strategies for Sustainability ..... 42
- Chapter 4: Design Guidelines for Additions to Existing Buildings .....52**
  - 4.1 New Additions ..... 52
  - 4.2 Sustainability and Energy Efficiency in New Additions ..... 56
  - 4.3 Solutions for Energy Generating Technologies on Historic Structures..... 64
- Chapter 5: New Construction for Primary Buildings.....70**
  - 5.1 New Building Designs in Historic Districts ..... 72
  - 5.2 Height-Width Ratio..... 73
  - 5.3 Mass and Form..... 76
  - 5.4 Orientation and Lot Coverage ..... 78
  - 5.5 Alignment, Rhythm, and Spacing ..... 81
  - 5.7 Materials..... 84
  - 5.8 Windows, Doors, and Façade Treatment..... 86
  - 5.9 Roof Forms & Material ..... 90
  - 5.10 Trim and Details..... 92
  - 5.11 Utility Systems ..... 92
  - 5.12 Energy Generating Equipment..... 93
- Chapter 6: Accessory Buildings, Accessory Dwelling Units, and Garages .....96**
  - 6.1 Accessory Buildings, Accessory Dwelling Units, or Garages ..... 97
- Chapter 7: Suggested Considerations.....99**
- Chapter 8: Glossary ..... 100**
- Chapter 9: Bibliography and Selected References ..... 104**





# Chapter 1: Introduction

## Valuing Boise's Residential Historic Districts

With their historic houses and tree-lined streets, Boise's older neighborhoods form a critical part of the city's character and sense of place. They trace Boise's built history and manifest a defining and unique character. The intent of these guidelines is to preserve the historic qualities of the Districts while allowing the Districts to remain vital and fluid so that they are livable by today's cultural standards.

These **Design Guidelines for Residential Historic Districts** (DGRHD) encourage a goal of quality development in Boise's historic districts. Homeowners can accomplish this goal through alterations and new construction which are congruous (harmonious) with the character of the neighborhood. Design principles embodied in these Guidelines should encourage creative solutions that will enhance the character of a neighborhood. These Guidelines incorporate prior guidelines that covered alterations and modifications and introduce design parameters for new construction.

Boise's residential historic districts are diverse architecturally and have already experienced change. Continued change is therefore expected. Change is the natural outcome of an evolving, healthy neighborhood. Historic preservation is not about slowing or hindering development, but rather not overlooking the value of what we already have. Our historic neighborhoods represent exactly the sort of development that cities across the nation are now trying to promote to counteract sprawl. This "New Urbanism" takes as the model the pattern of development found in our historic neighborhoods. Promoting this compact, pedestrian friendly development, which characterizes Boise residential historic districts, both supports and is called for in Boise's comprehensive plan, Blueprint Boise.

Boise residential historic districts represent and comprise special community qualities that draw residents to live in these places. Historic district designation offers residents confidence that the character of the neighborhood will be protected through historic preservation laws, ordinances, and processes. Accordingly, a local historic district protects the context of the neighborhood as a whole, and thus protects the major source of the value for an individual property.

## Purpose of Design Guidelines

---

The purpose of design guidelines for Boise residential historic districts is to provide guidance to property owners, architects, designers, builders, developers, City staff, and the Historic Preservation Commission and City Council. These guidelines inform about design policies in specific neighborhoods. These guidelines provide direction on preserving the integrity of the community's historic resources through congruous new construction and alteration. Congruous in this instance focuses attention on massing, size, scale, and architectural features that characterize both the immediate setting that surrounds the project site and the whole historic district. These guidelines also indicate an approach to design that will help sustain the character of the district that is so appealing to residents who already live there. Another purpose is to provide information about basic principles of urban design, not just historic preservation. These guidelines encourage property owners to make design decisions which promote an environment that is scaled to the pedestrian, maintains cohesive neighborhood identity and respects the unique natural setting of old Boise neighborhoods.

The guidelines further provide Boise City residents, through Boise City's **Historic Preservation Commission**, a basis for making informed, consistent decisions about proposed new construction and alterations to buildings and sites in the community through its formal permitting process. When the guidelines are followed carefully, they will provide uniform review and increased predictability, while serving as a means to prevent delays and minimize added costs to developers and builders. The Guidelines work best when used as the benchmark during early stages of project conception and design.

In addition to procedures defined by state law and local ordinance, the historic residential design review process utilizes design guidelines to guide consistent review of applications for major modifications to existing buildings or the construction of new structures. Building owners and developers must apply for a "**Certificate of**

**Appropriateness**" from the Boise City Planning and Development Services Dept. before they can proceed with their planned renovation or construction activity. Certificates are granted by the Historic Preservation Commission, a volunteer group of citizens appointed by the mayor and council, that evaluates the application against the design guidelines in order to determine acceptance, rejection or modifications required. City staff has the authority to approve minor exterior alteration requests, but significant changes that may require greater discretion and interpretation require Commission approval.

Although the design guidelines are written so 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. **A Glossary is contained in Chapter 8 and can be used for words in bold.** Additional selected sources of information, notes, and references for the design guidelines and relevant Boise City Zoning Code Provisions follow the glossary in Chapter 9.

## Additional Terms and Concepts

---

Each historic district has a "**Period of Significance**" which is the time during which the area gained its architectural and historical importance. Generally, 50 years is considered the time that must pass before a property or a collection of properties can be evaluated for historic significance. In addition to being from a historical period, a property must possess integrity. By law, the term "historic property" means any building, structure, area or site that is significant in the history, architecture, archeology, or culture of this state, its communities, or the nation.

The concept of **Integrity** is relevant within historic districts because it establishes whether a sufficient percentage of the structure, area or site dates from the period of significance. In the case of homes that are **Contributing**, the majority of the building's structural system and materials date from the period and character-defining elements of the architectural style such as the

mass and form remain intact. Character-defining elements of homes in historic districts allow for recognition of being a product of its own time. In the case of a district, integrity also includes design of blocks, lots, streets, sidewalks, yards and planting strips near curbs.

Homes not present during an historic district's period of significance, or those that have been altered or disturbed such that they no longer possess historic integrity are considered non-contributing structures. These structures may still possess characteristics that make them important to the overall historic character of the district. Elements including, but not limited to scale, massing, setbacks and materials are still important relative to noncontributing structures. The Secretary of the Interior's Standards for the Treatment of Historic Properties, as well as the National Register Criteria and Points of Integrity are references often used to help assess historic integrity. Though a property does not necessarily have to possess all seven points of integrity to be considered historic, it should possess or reflect most of them.

The City's intent is to encourage high quality development while protecting the heritage of Boise's residential historic districts. The change brought on with alterations and new construction generally brings a wide range of considerations such as protecting the integrity of the district, the sense of time and place conveyed by the property including structures, yards, gardens, streets, sidewalks, planting strips, and open space as a collection. The character, or "sense of feel" conveyed by these neighborhoods promotes an identity unique to the district. When reviewing a project using the design guidelines, the City will consider how each proposal meets the following goal. The general overriding goal for new construction within Boise residential historic districts:

New construction should be contemporary, but **Congruous** with existing buildings in their setting and within the historic district as a whole. The immediate block face is viewed as the starting point for the site design of new buildings. Building site design should reinforce the established character of the historic district and the visual continuity of the streetscape.

These guidelines will be one source in determining the congruity of proposed exterior changes in residential historic districts.

### Idaho Law

Idaho Code 67-4608 requires the Commission to account for and limit the degree of change in "exterior features" in a historic district. These include architectural style, general design and general arrangement of the exterior of a building or other structure, including the color, the kind and texture of the building material and type and style of all windows, doors, light fixtures, signs, and other appurtenant fixtures and natural features such as trees and shrubbery. This list is not all-inclusive. "General arrangement" extends to the manner in which a structure relates to the site where it is located or proposed.

State law does not allow the Commission to consider interior arrangement (although this may be useful in determining how to arrange the proposed alteration so that its exterior features remain congruous within the project's setting and the district).

State law provides that the Commission may grant a Certificate of Appropriateness only when the applicant demonstrates that the proposed project SHALL NOT result in construction, reconstruction, alteration, restoration, moving or demolition of buildings, structures, appurtenant fixtures, outdoor advertising signs or natural features in the historic district which would be incongruous with the historical, architectural, archeological or cultural aspects of the district.

Because the term “incongruous” is used in Idaho’s controlling law, these guidelines likewise use that term, or its antonym, congruous. “Incompatible” is synonymous with “incongruous.” “Compatible,” a term used in many nationally-recognized publications, treatises, guidelines and standards regarding historic preservation, for the purposes of these guidelines is synonymous with “congruent” and “congruous.” “Harmonious” also may be used as a synonym for congruous.

### **The Secretary of the Interior’s Standards for Rehabilitation**

---

The Secretary of the Interior has adopted Standards for Rehabilitation (“Standards”) contained in a larger work entitled The Secretary of the Interior’s Standards for the Treatment of Historic Properties (“Treatment”). As the Secretary of the Interior notes, the Standards “are only regulatory for projects receiving federal grant-in-aid funds; otherwise the Standards and Guidelines are intended only as general guidance for work on any historic building.”

Treatment further states, in its first introductory paragraph,

The Standards are neither technical nor prescriptive, but are intended to promote responsible preservation practices that help protect our Nation’s irreplaceable cultural resources. For example, they cannot, in and of themselves, be used to make essential decisions about which features of the historic building should be saved and which can be changed. But once a treatment is selected, the Standards provide philosophical consistency to the work.

### **The Ten Standards For Rehabilitation State:**

---

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 archaeological 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 **congruous** 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.

The Boise Historic Preservation Commission adopts these statements in its use of the Standards and other information found in the Treatment. They are not intended to be strict, technical rules or standards. These guidelines, together with the Secretary of the Interior's Standards and Guidelines, will be interpreted and applied in a manner consistent with the Idaho law's statement of purpose for local historic preservation:

The historical, archeological, architectural and cultural heritage of the state is among the most important environmental assets of the state and furthermore that the rapid social and economic development of contemporary society threatens to destroy the remaining vestiges of this heritage; it is hereby declared to be the public policy and in the public interest of this state to engage in a comprehensive program of historic preservation, undertaken at all levels of the government of this state and its political subdivisions, to promote the use and conservation of such property for the education, inspiration, pleasure and enrichment of the citizens of this state. It is hereby declared

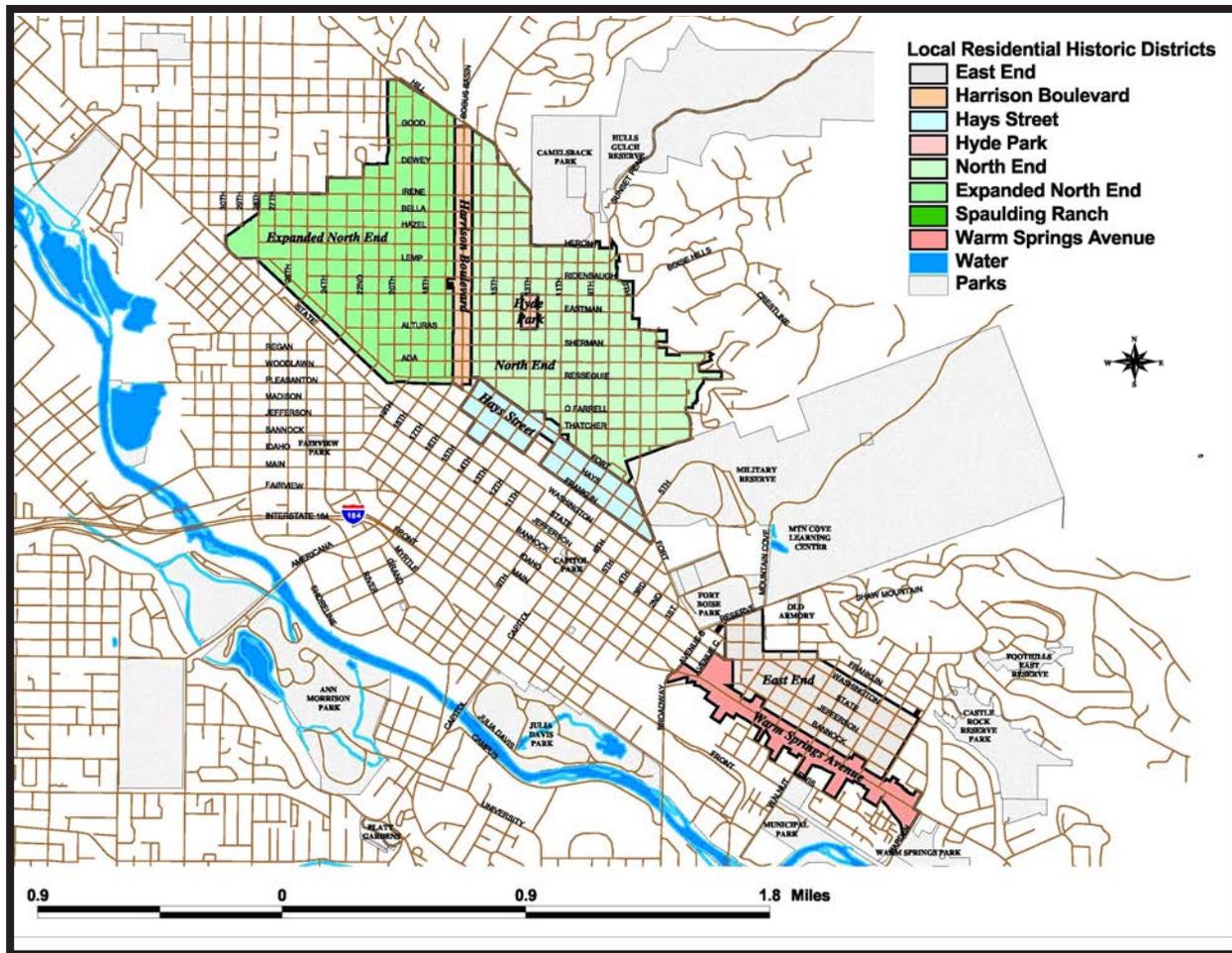
to be the purpose of this act to authorize the local governing bodies of this state to engage in a comprehensive program of historic preservation.

Included in the standards are guidelines for rehabilitating historic buildings, districts, and neighborhoods. All properties within a historic district are subject to these guidelines and standards and can be evaluated for congruousness based on these and other preservation and planning documents and sources set forth in the Historic Preservation Ordinance.

Additionally, the Commission may use [A Field Guide to American Houses](#), the [Boise City Historic Preservation Plan](#) (1979), and [Blueprint Boise](#) (2011; including neighborhood plans), or other reference materials to analyze the congruousness of proposed external changes in residential historic districts.

## Sustainability

Promoting a more sustainable community is an important objective in Boise and the City's preservation program plays a key role in it. The benefits of preserving historic resources and conserving older buildings and neighborhoods in Boise contribute to all three components of sustainability: Cultural/Social, Environmental and Economic. The main principles of sustainability applied in these guidelines promote the efficient use of resources, including historic resources. The application of sustainability in historic districts is intended to maintain the character of these neighborhoods while enhancing their livability and maintaining them in active use.

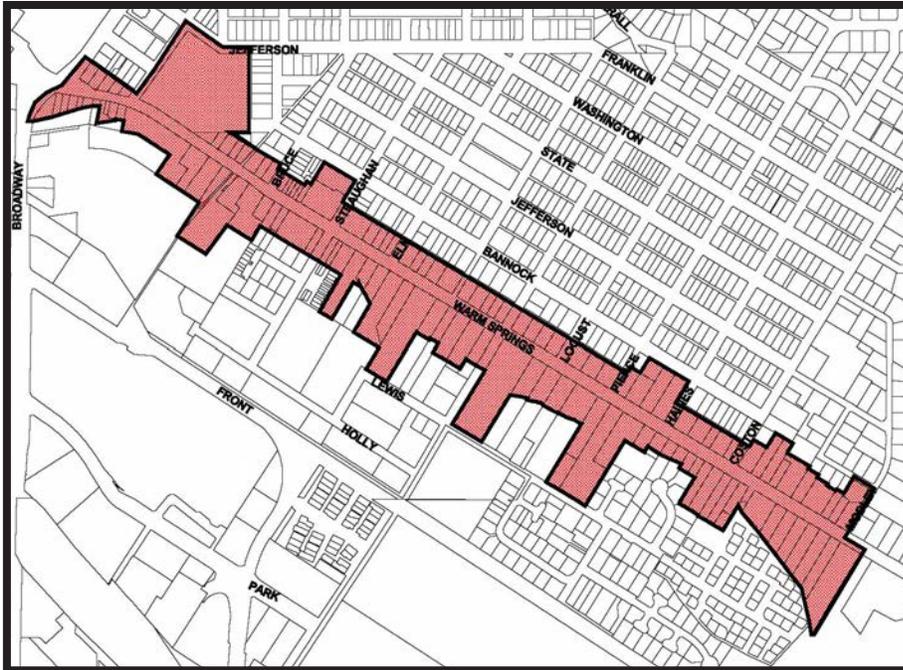


*Boise Residential Historic Districts*

## Chapter 2: Guidelines for Residential Historic Districts

Boise City residential historic districts each have a distinctive and unique character. New construction within these districts should be **congruous** with both the immediate **context** in which the new construction is located, as well as the overall **character** of the neighborhood. The purpose of this chapter is to highlight the individual character of each district and provide guidelines which support appropriate new construction within that district. **This chapter is in addition to the general policy and design guideline statements contained within chapters 4, 5, and 6 of this document.**

The following chapter includes five sections, one for each of the five residential historic districts. The historic districts contained in Chapter 2 are: Warm Springs Avenue, the East End, Harrison Boulevard, the North End, and Hays Street. Each section contains a map, statement of significance and description of the neighborhood, design goals, policy, and guidelines for unique design considerations such as building orientation, site coverage, parking and streetscape, landscaping, and fences.



## Warm Springs Historic District



## 2.1 Warm Springs Avenue Historic District

### Period of Significance

The Warm Springs Avenue Historic District is one of the premier residential neighborhoods in the City and the West. The district is aligned along Warm Springs Avenue, a wide roadway with broad, tree lined sidewalks. The road extends east from the city's commercial center, and historically served as a gateway into the community.

The Warm Springs neighborhood began in the 1890s, soon after Kelly Hot Springs, for which the street was named, were tapped to provide water for Boise's fire hydrants. The prominent owners of the water line built their mansions on the street, pumping in the natural hot water from east of Table Rock for use in their homes; these were among the first houses in the world to utilize geothermal sources for heat.

The homes on Warm Springs Avenue are distinctive and grand. Diverse architectural styles designed by the prominent regional architects are represented and include Queen Anne, Colonial Revival, Mission Revival, Tudor Revival, and

Bungalow, among others. Quality construction and design, including the use of natural local materials, also characterize homes in this neighborhood.

Most homes are graciously set back from the street with large lawns, generous landscaping, and circular or long driveways. Some of the lots on the south side of the street are in excess of one acre in size, while lots on the north are more uniform in size with alleys to the rear. The streetscape on either side of the street differs correspondingly. The north side has an attached sidewalk to the street, while the south side has a parkway.

**Design Goals:** Maintain the stately elegance of this district, as reflected in the quality of design and construction, and site design with generous open space and landscaping.

**Policy:** Preserve the unique historic character of the district and ensure that improvements respect the contrasting character of the north and south sides of the avenue. New buildings should respect the historic scale of construction. Preservation of the key details of high style buildings should be a priority.



**It is Generally Appropriate to:**

---

- 2.1.1 Maintain the average setback of historic properties on the block. Generally, larger, taller masses should have a larger than average front setback than smaller structures.
- 2.1.2 Maintain the prevalent historic and architectural styles of the district
- 2.1.3 Retain open front yards or design fences that are in character with the district.
- 2.1.4 Preserve existing historic garages, significant landscape features, and auxiliary buildings.
- 2.1.5 Preserve existing visible, front elevations by placing new additions on secondary elevations.
- 2.1.6 Maintain the traditional character of the streetscape when installing new sidewalks or driveways.
- 2.1.7 Retain open front yards where no fence or site wall traditionally existed or design a fence or site wall that is in character with the district.
- 2.1.8 Comply with design guidelines for new construction in chapters 4, 5, and 6.
- 2.1.9 Replace and replant trees of a species similar in species to street trees planted during period of significance.



**It is Generally Not Appropriate to:**

---

- 2.1.10 Use chain link, un-faced concrete, plastic, vinyl, fiberglass, concrete block, and mesh "construction" fences in front yards.
- 2.1.11 Remove mature trees unless they are deemed by the city to be dying, dead, diseased, or posing a safety hazard to the public.
- 2.1.12 Use large paved, asphalted, or comparable hardened materials for parking areas that is visible from the front elevation or the public right-of-way. Where this is an exception and alleys are not present, the use of hardened materials should be minimized.
- 2.1.13 Conflict with The Secretary of the Interior's Standards for Rehabilitation.
- 2.1.14 Replace Class III trees with smaller trees.







The predominant architectural style in the district is the Craftsman bungalow, represented by 127 homes or 29 percent. There are a mix of other styles present including Queen Anne cottages, American foursquare, and a handful of Mission Revival/Spanish eclectic. There are no large clusters of **contributing** structures, rather they are scattered throughout the district.

**Design Goals:** New construction projects shall maintain the residential character and scale of the neighborhood; it should be in character with the contributing structures in the district; the modest character of the district should be recognized and respected.



**Policy:** Preserve the predominant architectural style of the district, which strongly affects the sense of scale and unique character, while accommodating **congruous** new construction. The distinctive design characteristics of individual building types and styles should be preserved. New construction should be congruous with its historic context while reflecting contemporary design and preserving traditional spacing between structures.

**It is Generally Appropriate to:**

.....



2.2.1 Design new buildings and additions to be similar in scale (height, width and related open space found on the block face) through the use of similar materials, roof forms, and **solid-to-void** relationships.

2.2.2 Borrow architectural design elements from the predominant Bungalow style of the district. Design new buildings to be modest in character and contribute to the existing structures in the district.

2.2.3 Maintain similar side yard setbacks of a new structure or an addition to those seen traditionally in the block.

2.2.4 Maintain front setbacks of a new building so they remain in line with the range of setbacks seen in the block.

2.2.5 Plan additions so that they minimize visual impacts on adjacent built properties since side yard spaces are relatively small between residences.

2.2.6 Locate, design, and construct accessory units and garages in a manner similar to those seen historically in the district.

2.2.7 Keep front yards open where no fence traditionally existed.



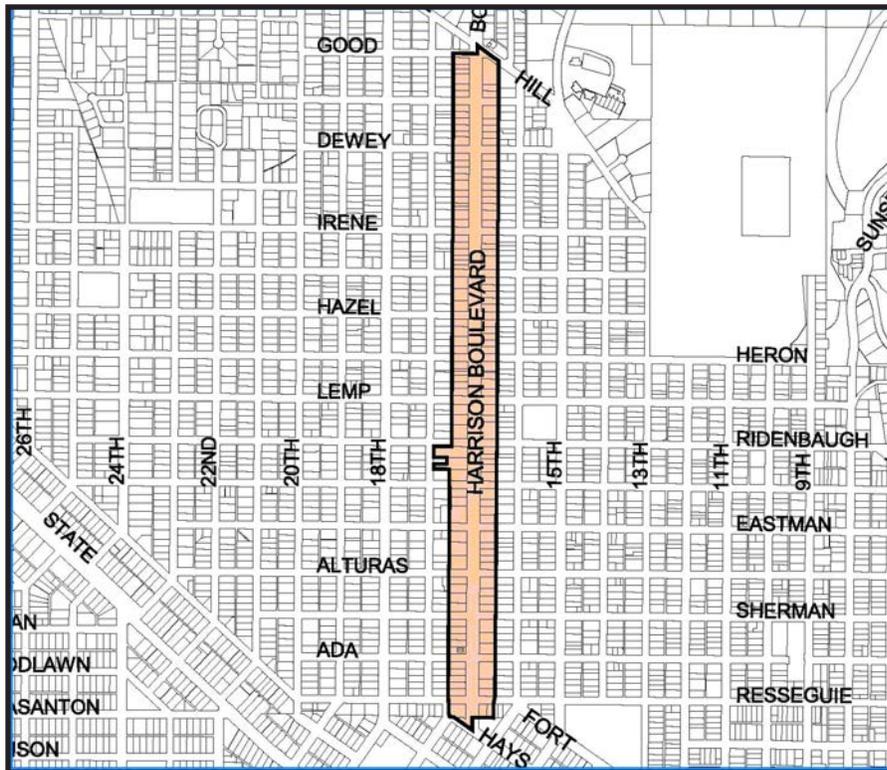


- 2.2.8 Maintain the traditional character of the streetscape when installing new sidewalks or driveways.
- 2.2.9 Comply with design guidelines for new construction in chapters 4, 5, and 6.
- 2.1.10 Replace and replant trees of a species similar to the species planted during the period of significance.

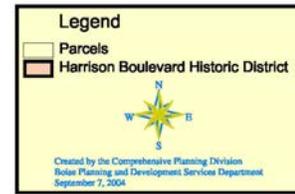
**It is Generally Not Appropriate to:**



- 2.2.11 Use chain link, un-faced concrete, plastic, vinyl, fiberglass, concrete block, and mesh "construction" fences in front yards.
- 2.2.12 Remove mature trees unless they are deemed by the city to be dying, dead, diseased, or posing a safety hazard to the public.
- 2.2.13 Use large paved, asphalted, or comparable hardened materials for parking areas that is visible from the front elevation or the public right-of-way. Where this is an exception and alleys are not present, the use of hardened materials should be minimized.
- 2.2.14 Conflict with The Secretary of the Interior's Standards for Rehabilitation.
- 2.2.15 Replace Class III trees with smaller trees.



## Harrison Boulevard Historic District



## 2.3 Harrison Boulevard Historic District

### Period of Significance

The Harrison Boulevard Historic District is linked by one of Boise's most beautiful streets. Harrison Boulevard is a wide avenue flanked by mature trees and a parkway median. The boulevard was laid out in 1891 in the general location of an early stage and emigrant route, an alternate route of the Oregon Trail, and was named for President Benjamin Harrison, who signed the Admissions Act making Idaho a state in 1890.

The district displays a rich variety of architectural styles with large mansions in Queen Anne, Tudor Revival, Mission Revival, Colonial Revival, and Art Moderne styles alongside more modest bungalows and cottages. A variety of building materials including brick, wood shingle, wood siding and stone are represented.

Continuity in this diverse architectural setting is created by the boulevard. The uninterrupted parkway with the consistent line of ornamental

pear trees and street lights, flanked by mature deciduous trees along the outside, bind the neighborhood. The variety in housing sizes and lot configurations is connected by the symmetry of the street.

**Design Goals:** New construction projects shall maintain the continuity of the boulevard, while embracing the diversity of individual properties; rear alleys and line of street setbacks which vary by blocks should be maintained; street trees and plant materials in the landscape parkways should be respected; and integrity of the uninterrupted sidewalks along the blocks should be maintained.

**Policy:** Preserve the unique character of this stately boulevard. Preservation of the character, style, and details of the many high style buildings is a high priority, as is assuring that new building will be in scale and **congruous** in character with the district.



**It is Generally Appropriate to:**

2.3.1 Maintain the prevalent historic and architectural styles of the district.

2.3.2 Maintain the prevalent historic and architectural qualities of the district through additions that consider appropriate restoration of the historic building.

2.3.3 Maintain the average setback of historic properties on the block. Generally, larger, taller masses should have a larger than average front setback than smaller structures.



2.3.4 Side yards setbacks of a new structure or new addition should appear similar to those seen traditionally on the block.

2.3.5 Preserve existing historic garages, significant land-scape features, and auxiliary buildings.

2.3.6 Use ornament and detail for new buildings and additions that are congruous with the existing building. Detail should complement the new or existing building providing substantial "depth" with finishes integral to overall design that appear similar to those found traditionally on the building or in the district.



2.3.7 Maintain the traditional character of the streetscape when installing new sidewalks or driveways.

2.3.8 Retain open front yards where no fence or site wall traditionally existed or design a fence or site wall that is in character with the district.



2.3.9 Comply with design guidelines for new construction in chapters 4, 5, and 6.

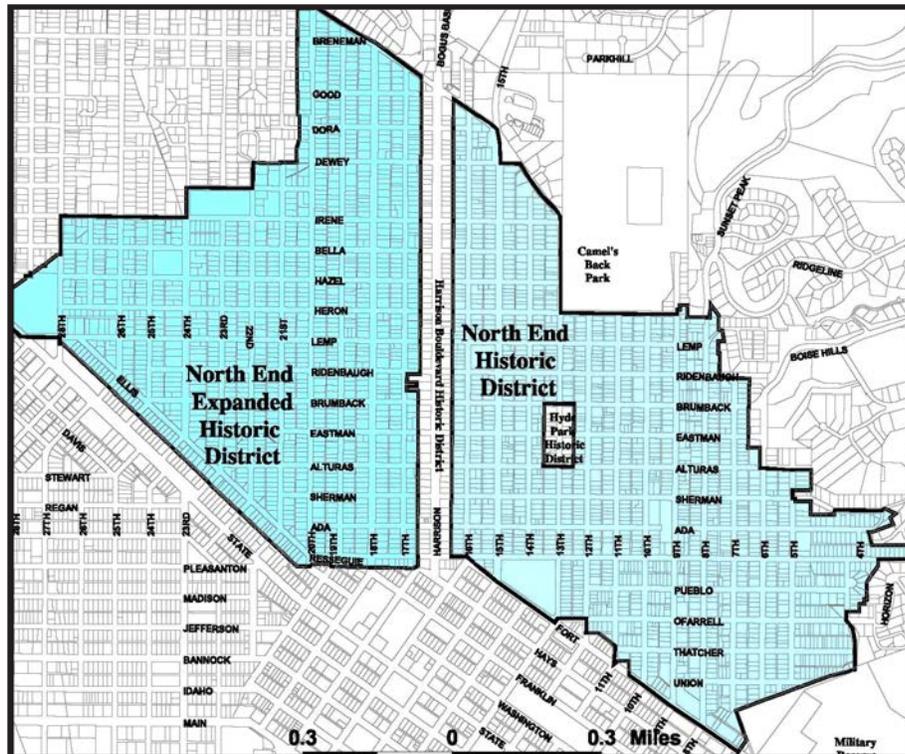
2.1.10 Replace and replant trees of a species similar to the species planted during the period of significance.



**It is Generally Not Appropriate to:**

---

- 2.2.11 Use chain link, un-faced concrete, plastic, vinyl, fiberglass, concrete block, and mesh “construction” fences in front yards.
- 2.2.12 Remove mature trees unless they are deemed by the city to be dying, dead, diseased, or posing a safety hazard to the public.
- 2.2.13 Use large paved, asphalted, or comparable hardened materials for parking areas that is visible from the front elevation or the public right-of-way. Where this is an exception and alleys are not present, the use of hardened materials should be minimized.
- 2.2.14 Conflict with The Secretary of the Interior’s Standards for Rehabilitation.
- 2.2.15 Replace Class III trees with smaller trees.



## North End Historic District



## 2.4 North End Historic District

### Period of Significance

The North End Historic District was the City's first "suburban" development. Its first neighborhood, platted in 1878, was a small area covering only a few blocks between 9th and 13th Streets, from Fort Street north to Resseguie. But beginning in 1891, speculators began purchasing land in earnest, beginning a twenty-five year intensive building boom.

The original lots subdivided in the district were relatively small, but building sites were created from one or more lots, creating a rich diversity in the pattern of site development. It is fairly typical to have had lots subdivided with dimensions of 122 feet by 25 feet except on corners with 30 foot widths. Most people at the time selected two or three resulting in 50 and 75-foot frontages. In general, there are fewer buildings per block on the west side of Harrison Boulevard as compared to the blocks around 6th, 7th and

8th Streets. Although the North End is predominantly a single family neighborhood, small commercial areas, institutional uses, and multi-family housing have historically been part of the district.

The grid street layout with rear alleys, generous landscape parkways, and deciduous trees unify the district. Streets are parallel, aligned on a north-south grid over relatively flat terrain. There is only very slight variation in the size of the blocks and widths of the streets. Alleys run between the middle of most blocks. The North End was an early trolley neighborhood and the lasting legacy of the trolley is the wider street sections along 15th, 18th and 24th Streets.

The district derives and defines much of its primary significance and character from the grouping of early 20th century architecture. The character and vitality of the North End District is in its diversity: in architectural styles, size of buildings



and parcels, and mix of land uses. The North End was generally developed as a working and middle class neighborhood, so modest homes predominate, although there are some larger homes.

An early pattern of leap frog development left vacant lots which were later filled in with later architectural styles. Consequently, a variety of architectural styles, mixed throughout the district are represented, including simple clapboard dwellings, Queen Anne, Bungalow, Tudor Revival, Colonial Revival, and Ranch Style. Building materials include local sandstone, brick, and wood.



From the early days of the district, North End developers and property owners planted trees. Mature trees provide a canopy over most streets and a continuous pattern of color and texture.

**Design Goals:** New construction projects shall recognize the importance of the diverse architectural styles and integrity that characterizes the district by considering ways to enhance, reinforce, and restore it through rehabilitation and new construction of buildings. Projects should continue the diversity in housing size, development patterns and land uses, while maintaining the continuity of the open spaces, including traditional space between houses, landscaping, and trees.



**Policy:** The most significant features of the district are its overall scale and simple character of buildings, grid-street layout, and tree-lined streetscape. As a result, the primary goal is preserving the general, modest character of each block as a whole, as viewed from the street.

### It is Generally Appropriate to:



2.4.1 Borrow from the diversity of architectural styles in the district.

2.4.2 Design new buildings and additions to be similar in scale through the use of similar materials, roof forms, and solid-to-void relationships.

2.4.3 Maintain the continuity of landscaping and mature trees. Where mature trees exist, every attempt should be made to design and construct around them.



2.4.4 Access new driveways, accessory units, and garages from the alley.

2.4.5 Use materials such as stone for foundations that reflect a similar appearance and texture of other buildings within the block of the district. Special treatment should be paid to the foundations along the front façade and side elevations visible to the public right-of-way or street.

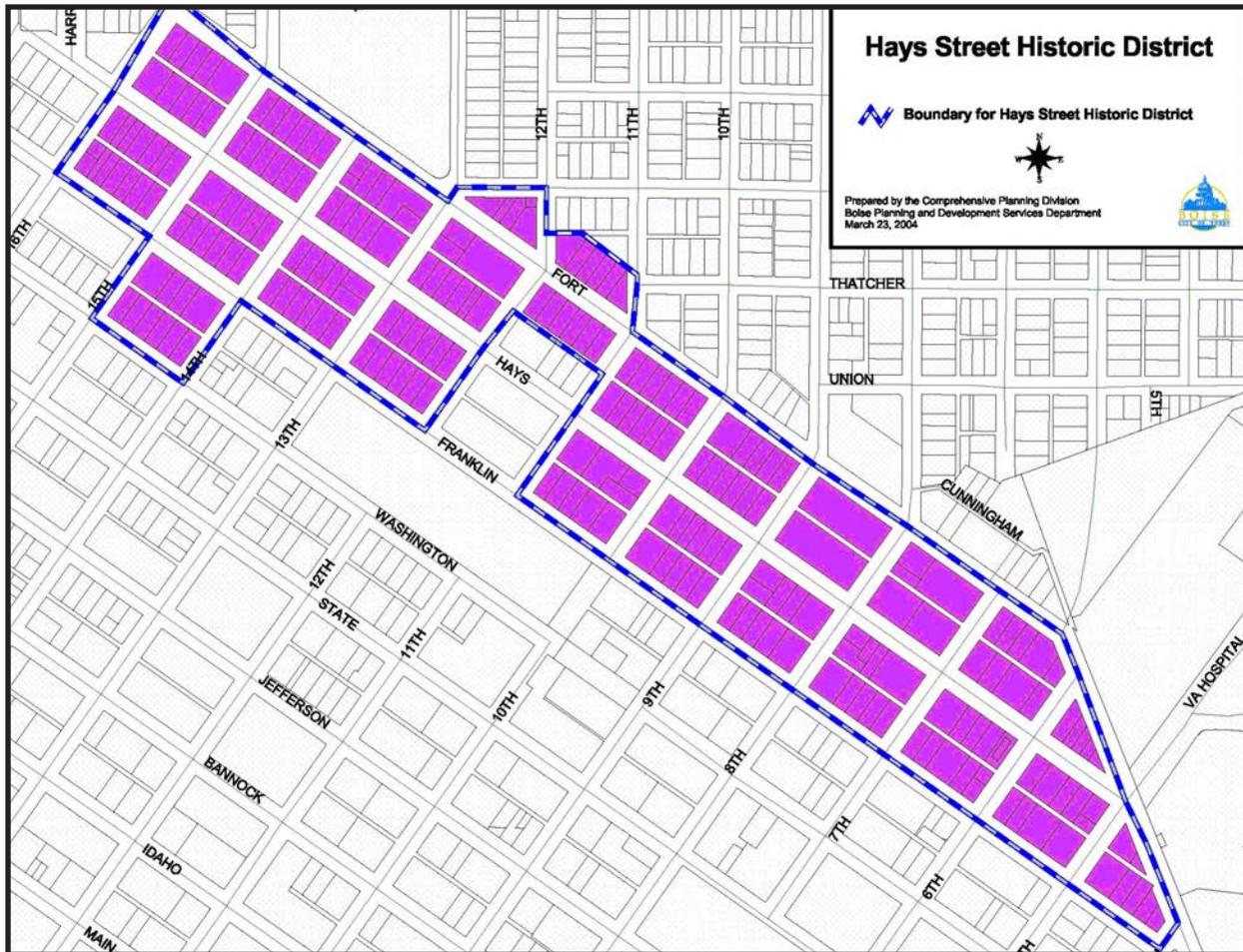


- 2.4.6 Keep front yards open where no fence traditionally existed.
- 2.4.7 Maintain the traditional character of the streetscape when installing new sidewalks or driveways.
- 2.4.8 Comply with design guidelines for new construction in chapters 4, 5, and 6.
- 2.4.9 Replace and replant trees of a species similar to the species planted during the period of significance.

**It is Generally Not Appropriate to:**



- 2.4.10 Use chain link, un-faced concrete, plastic, vinyl, fiberglass, concrete block, and mesh "construction" fences in front yards.
- 2.4.11 Remove mature trees unless they are deemed by the city to be dying, dead, diseased, or posing a safety hazard to the public.
- 2.4.12 Use large paved, asphalted, or comparable hardened materials for parking areas that is visible from the front elevation or the public right-of-way. Where this is an exception and alleys are not present, the use of hardened materials should be minimized.
- 2.4.13 Conflict with The Secretary of the Interior's Standards for Rehabilitation.
- 2.4.14 Replace Class III trees with smaller trees.



## 2.5 Hays Street Historic District

### Period of Significance

The Hays Street Historic District comprises almost twenty-two blocks in the northern half of the Original Boise Townsite. The district was originally a residential neighborhood developed most intensely at the turn of the twentieth century. Fifty percent of the present buildings in the district were constructed prior to 1912.

Although originally primarily a residential neighborhood, the Hays Street District currently contains a mix of land uses, and the base zoning districts allow for multi-family and office uses. Large and modest single family homes, as well as apartments, earlier known as boarding homes, churches and schools were historically built in the district. Over the years, many of these homes were converted to new uses as offices or demol-

ished to make room for surface parking lots. This mix of land uses and the predominately residential scale of the Hays district provide a transition from the more intensely commercial downtown and State Capitol Campus to the more single-family North End Historic District.

The visual continuity of the streetscape most pronounced by setbacks and landscaping has remained mostly in tact. The ambience of a mature tree-lined boulevard is still retained throughout the district.

The district contains a wide range of architectural styles with a number of buildings designed by the architect J. E. Tourtellotte and the successor firm. The Queen Anne architectural style is the most common with twenty percent of the buildings. Also represented are Colonial Revival, Craftsman, and Minimal Traditional, among others.



**Design Goals:** New construction projects shall maintain the scale and residential character of the district while accommodating adaptive reuse of structures; protect significant properties from intrusive and non-compatible redevelopment; and the district should serve as a thriving, permeable buffer between the commercial downtown and the North End Historic District, which is predominantly residential in nature.



**Policy:** Preserve the character of its streetscape and integrity of individual historic structures. In particular, encourage the preservation of the streetscape through adaptive re-use, including the variety of uses that range from single- to multi-family, commercial, and offices. There should be a net decrease in surface parking areas in time as redevelopment encourages new building throughout the district.

### It is Generally Appropriate to:



2.5.1 Locate additional parking spaces to the rear of the property and provide a landscaping buffer from the public right-of-way, front elevation, and side elevation on corner lots.

2.5.2 Keep front yards open where no fence traditionally existed.

2.5.3 Preserve the character of the building in adapting it to meet the requirements of the Americans for Disabilities Act.

2.5.4 Adapt signage for office conversions that is consistent with city guidelines for historic signs.



2.5.5 Adhere to the parking allowances and regulations of the Near North End Conservation District.

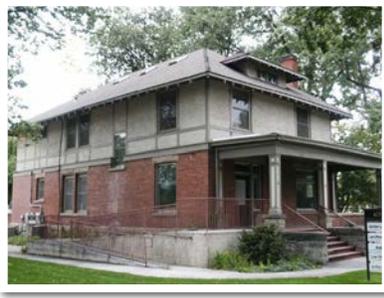
2.5.6 Maintain the traditional character of the streetscape when installing new sidewalks or driveways.

2.5.7 Adapt a residence to a new use by preserving the design character of the building. When converting to a new use of commercial or office, the house should retain its residential image.



2.5.8 Comply with design guidelines for new construction in chapters 4, 5, and 6.

2.5.9 Replace and replant trees of a species similar to the species planted during the period of significance.



### **It is Generally Not Appropriate to:**

---

- 2.5.10 Demolish existing buildings for surface parking.
- 2.5.11 Use chain link, un-faced concrete, plastic, vinyl, fiberglass, concrete block, and mesh “construction” fences in front yards.
- 2.5.12 Remove mature trees unless they are deemed by the city to be dying, dead, diseased, or posing a safety hazard to the public.
- 2.5.13 Use large paved, asphalted, or comparable hardened materials for parking areas that is visible from the front elevation or the public right-of-way. Where this is an exception and alleys are not present, the use of hardened materials should be minimized.
- 2.5.14 Conflict with The Secretary of the Interior’s Standards for Rehabilitation.
- 2.5.15 Replace Class III trees with smaller trees.

# Chapter 3: Common Styles, Basic House Treatments, and Sustainability

## 3.1 Common Styles in the Districts

### The Victorian Period (1860 to 1910)

The Victorian period encompasses the early years in Boise's development. Many homes of this period were modest yet still demonstrated the romantic features associated with the Victorian architectural style. These include elaborate decorative details such as decorated gables and towers capped with peaked roofs. In some communities, the Victorian era introduced a variety of exterior paint colors or a mixture of building materials. In Boise, locally quarried sandstone was often incorporated into these designs.

Some of the earliest remaining homes in Boise may be characterized as Folk Victorian. Although there are rare examples of more ornate styles of the late 19th century, such as Italianate, many early Boise homes were constructed using an overall simplicity of form typical in the Folk Victorian. The building plan was either square or with a gable front and wing forming an "L" shape. Decorative treatments, characteristic of the period, were usually confined to say-cut porch and gable trim, spindle work on the porches or verandas, and brackets under the eaves.

Queen Anne is the style most associated with the Victorian era. Unlike the simpler Folk Victorian, the Queen Anne home typically has complicated, asymmetrical plans and roof types, as illustrated above. The style usually emphasized rounded corner towers and turrets, shingles and clapboard siding, bays, and a variety of ornamental techniques including spindlework, turned balustrades, and ornate door and window treatments. In Boise, Queen Anne homes may be found on many of the corner lots on prominent historic streets. These homes often have entrances or porches which figure prominently where the two streets intersect, also shown above.



Shingle style is, as the name implies, noted for its use of shingle siding. It also exhibits many of the characteristics of the Queen Anne structure but is more restrained. For example, while the roof line would be irregular with combinations of hip and gables, turrets and towers would be replaced by more angular dormers.

## Green Features on Victorian Period Homes

---

The following images illustrate several of the inherent green features typically found on Victorian period homes. These are intended as examples to facilitate the identification of such features, and are not exhaustive.

### Queen Anne/Victorian

Double-hung windows simultaneously allow cool air in and warm air out

Window arrangements such as these may allow for passive heating in the winter, where proper orientation occurs

Porch helps moderate temperature swings



Steep roof pitch and large roof area facilitate the collection of rain water

Double-hung windows simultaneously allow cool air in and warm air out

Substantial porch helps moderate temperature swings



*Mature deciduous trees also provide seasonal shading for this home.*

*Spanish Colonial/Mission Revival*

### The Revival Period (1860 to 1950)

The Revival period spans many decades because of the continuing popularity of classic architectural styles. Although these Revival styles may include elements of their original counterpart, they are usually only reminiscent of those used centuries ago. For example, a Tudor Revival home would not be mistaken for a Tudor mansion, nor would a Mission Revival residence be confused with a California Mission.

The Colonial or Classical Revival style was a popular reaction to the ornate Victorian period and, in Boise, dominated the next wave of residential construction occurring in the early 1900s. Identifying features of this style include a symmetrical façade, a rectangular plan, classic columns, prominent porticoes or full height porch, and molded geometric patterns. Many properties inventoried by Boise City have been designated as Colonial Revival or Western Colonial. These properties may also exhibit the element attributed to the Classic Box style, popular during the same period along the West coast. These homes are typically two story box shapes with hip roofs and small front facing centered dormers. The ornamentation often includes Colonial style features such as columns and porticoes.

*Tudor Revival*

The Spanish Colonial or Mission Revival styles, shown above, may also be found in Boise's early neighborhoods. These buildings are typically clad in stucco and adorned with tile, hip or shed roofs. Ornamentation varies widely from the simple, smooth, "Mission-like" features to more elaborate Spanish Renaissance details. Iron window grilles and balustrades are common to this style.

Tudor Revival, above, is an architectural style characterized by steeply pitched and gable roofs, gabled entry ways, multi-paned windows, tall chimneys, and a distinctive decorative half-timbering. In Boise, the building materials are typically brick with a stucco treatment under the half-timbers.

## Green Features on Revival Period Homes

---

The following images illustrate several of the inherent green features typically found on Revival period homes. These are intended as examples to facilitate the identification of such features, and are not exhaustive.

### Colonial Revival

Operable shutters can be closed to block solar heat gain in the summer while allowing cooling breezes through

Double-hung windows simultaneously allow cool air in and warm air out

Symmetrical window arrangements typically allow for passive cooling and cross-ventilation through the home

Porch helps moderate temperature swings



### Tudor Revival

Wood-burning chimneys can provide for non-mechanical heating

Stone exterior provides thermal mass to moderate indoor temperature swings

Steep roof pitch and large roof area facilitate the collection of rain water

Roof overhang provides for seasonal shading



## The Modern Period (1900 to 1950)

Although the Revival period extends into the middle decades of the 20th century, other styles are associated with the modern era. Particularly in Boise during the prosperous war years, numerous modest homes were constructed in areas just adjacent to the city's boulevards and avenues which were already well populated with large Victorian or Revival era residences.

The Prairie style was created by a group of Chicago architects, including Frank Lloyd Wright. Boise includes vernacular examples of this style, since they were spread widely by pattern books and popular magazines particularly in the years preceding World War I (McAlester and McAlester, 1984). The architect's concept was to use structural features to accentuate horizontal lines and low geometric planes. This was often achieved through low hip roofs, contrasting trim between stories, long caps on porch and balcony railings, and recessed aligned casement windows, as illustrated in the photo above. In Boise, Prairie examples utilize stucco as well as the traditional wood, brick or sandstone.



Like the Prairie style, the Craftsman/Bungalow was also inspired by master architects; in this case Greene and Greene of Pasadena, California. The Craftsman style was influenced by the Arts and Crafts movement in England and by some Oriental forms, but was also widely spread and modified throughout the United States through pattern books and magazines. Although used on large homes, most examples of this style are smaller bungalows. Boise has many examples of the one or one and one-half story house with

broadly pitched overhanging gables, exposed beams beneath overhanging eaves, and projecting brackets. The style encourages the use of natural materials and often Boise examples use sandstone or, in the rare case, river rock. Windows are sash or casement and the porch is a notable feature often with square or tapered posts.

Art Deco/Moderne styles are characterized by an overall streamlined appearance. Art Deco has more angular shapes with vertical projections above the roof line and ornamental use of zig-zags and other period designs. Moderne utilizes rounded corners and is rarely ornamented. Boise's notable Moderne examples often demonstrate the characteristic windows that wrap around a building corner.

## Green Features on Modern Period Homes

---

The following images illustrate several of the inherent green features typically found on Modern period homes. These are intended as examples to facilitate the identification of such features, and are not exhaustive.

### Craftsman/Bungalow

Substantial roof overhangs provide for seasonal shading

Double-hung windows simultaneously allow cool air in and warm air out

Porch helps moderate temperature swings



*The large area of windows on this facade may also provide for passive heating in the winter where proper orientation occurs.*

## 3.2 Suggested Treatments for Basic Elements of the Historic House

Just as Boise has a variety of architectural styles and types, there are a range of possible treatments for the rehabilitation of historic homes. These depend, of course, on the character of the home – its design, building materials, and condition. Since there is no single approach which could be applied to all homes within Boise’s residential historic districts, the Commission recommends the approach outlined by the Secretary of the Interior as guidelines for rehabilitating historic buildings. This approach has the following four steps:

### 1. Identify, Retain, and Preserve

Identification of the structure’s character (as discussed on the previous pages) is the basis of the successful rehabilitation project. Once this is identified, the first treatment is to retain and preserve the form and detailing of the architectural materials and features which are critical to defining the historic character of the structure.

### 2. Protect and Maintain

The second step involves protecting, through the least degree of intervention and prior to further rehabilitation efforts, the important architectural materials and features. Protection often includes maintenance measures such as caulking or cleaning of roof gutter systems. Maintenance measures should be carefully considered and sensitive to fragile historic materials. This step also provides an opportunity to evaluate the structural condition to determine the course of future rehabilitation.

### 3. Repair

The third step is only necessary when the previous evaluations determine that repair work is necessary. The preferred method of repair is the least degree of intervention, such as patching or splicing, using accepted, sensitive preservation methods. If actual replacement is necessary, utilization of all remain usable elements is recommended and

any new parts should be of identical material and design. Substitute materials may also be used provided they are congruous to existing historic features and the prevailing character of the district.

### 4. Replace

If an important feature is missing, either due to deterioration or damage, the preferred option is to design a replacement based on any existing information, such as remnants of the original feature, plans or old photographs. Ideally the replacement will be identical in material, color, and design to the original; however, substitutes may be used provided they are congruous to existing historic features and the prevailing character of the district.

The following sections apply these four steps to some basic elements of the historic house – exterior siding, roofs, windows, entrances and porches, site design, and landscaping. The suggestions are all derived from the Secretary of the Interior’s Guidelines for Rehabilitating Historic Buildings (USDOJ 1984); however, they are not specific to any one building type. The Commission recommends that the historic homeowner seek out some of the literature, much of which is referenced in the Resources section of this guidebook, for specific rehabilitation techniques applicable to their homes.

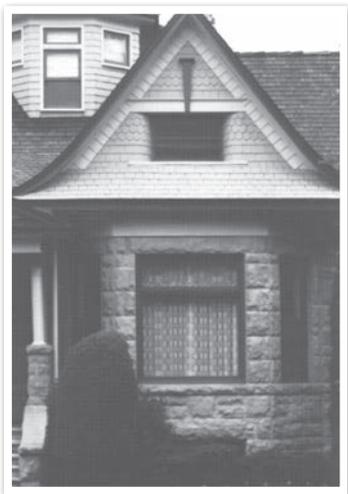


## Exterior Siding

The materials which clad Boise's historic homes include horizontal wood siding, decorative wood shingles, sandstone, brick, stucco or various combinations of these. Identifying material type, design, color and application, is critical to preserving and retaining the historic siding.

Different exterior siding materials require specific protection, maintenance, and repair techniques. For example, the cleaning process for wood materials varies from those recommended for masonry. Likewise, particular maintenance issues such as repointing masonry are only relevant with a particular building material. In all cases, however, cleaning should be done by the gentlest means possible to insure that original materials are not damaged during the cleaning process. Causes of deterioration should be identified swiftly and repaired appropriately. These causes may range from overgrown landscaping to faulty drainage.

When siding must be repaired, replacement siding should match the original in size, design, composition, and texture. The Commission does not recommend the use of metal or vinyl siding within the historic districts. Repair and replacement should also include the retention of features such as brackets and moldings which help identify the overall exterior design. Any new features should be consistent with the visual appearance of the home.



## Roofs

Key to determining the historic character of a home is the functional and decorative features of the roof. These features include the roof's shape, such as hip, gambrel or shed; decorative features, such as cupolas, cresting, and chimneys; and materials, such as wood, clay tile, or metal. The size, color and patterning are also important to identifying roof design.

A roof may be well protected and maintained by cleaning the gutters and downspouts and replacing deteriorated flashing. Roof sheathing should also be checked for proper venting to prevent moisture condensation and water penetration; and to insure that materials are free from insect infestation. Nails and clips should be maintained in good condition to ensure that the roofing material is well anchored and to avoid corrosion. Until such time that proper repair may be made, a leak should be quickly protected with plywood and building paper to prevent accelerated deterioration of the historic building.

Roof repair may include the limited replacement of parts of features, such as cupola louvers, or complete re-roof. Replacing an entire roof feature should only be undertaken when limited replacement is insufficient. If the replacement material is not identical to the original, the substitute should convey the same visual appearance in size, scale, material and color.

New additions to a residential roof are rarely necessary to address modern needs; however, if mechanical equipment or similar appurtenances must be roof-mounted, they should be screened to be inconspicuous from the public right-of-way.

## Windows

The historic home has many windows, frequently exhibiting a variety of styles. Each window has numerous elements including frames, glazing sills, paneled or decorated jambs and moldings, and shutters. The type, location, and placement of each window and how it related to the overall design of the house are all important to the identification of historic character.

Appropriate protection and maintenance of window framing and trim includes appropriate surface treatments such as cleaning, rust and paint removal, and re-application of protective coating systems. Original windows may be made more efficient by re-caulking and replacing or installing weather-stripping. Window framed and sash may be repaired by patching, splicing, or consolidating with the parts which remain of the existing window and utilizing replacement pieces. Replacing an entire window when portions are usable is not recommended, nor is utilizing substitute parts which are not congruous either visually or physically with the remaining historic window.

When the historic window is missing a new window may be designed and installed based on historical, pictorial, and physical documentation. In the absence of sufficient information to execute a complete restoration, the new window should be congruous with the window opening and the design of the historic home. Similarly, should the remodeling effort result in the need for new window openings or a structural addition with windows, these should be congruous in design, material and placement with the historic building. Ideally, additions of this type will be on elevations that are less character defining, such as the rear or interior side.



## Entrances and Porches

Features important to the historic character of entrances and porches include doors, fanlights, pilasters, columns, balustrades, and stairs. Particular attention should be paid to the size and shape of the entrance treatment and its relationship to the rest of the structure.

Protection and maintenance of the masonry, wood and architectural metal that comprise entrances and porches should be accomplished with appropriate surface treatments such as cleaning, rust and paint removal, and reapplication of protective coating systems. Deteriorated or missing parts of repeated features, such as balustrades, columns or stairs, may be replaced by using the remaining parts to determine material, color and design.

This same technique of utilizing existing parts may be used to replace a porch structure that is beyond repair. Whatever is left of the existing porch should be used to guide the design of the replacement structure. Materials should be identical wherever possible, or of a congruous substitute material if it is not economically



feasible to replicate the original materials.

Should the porch be missing entirely, research should be conducted to perform a restoration that is based on historical, pictorial and physical documentation. Whether a replacement or an addition, a new design should not create a false historical appearance, but rather be congruous with the historic character of the building. In no case should the new entrance be incongruous in size, scale, material, and color.

Often the porch structure provides an opportunity for additional livable floor space. Ideally, these structures are on rear or side elevations which are less critical to the exterior appearance of the home. However, new enclosures may preserve the historic character with careful selection of materials and proper installation. For example, large sheets of glass which are recessed may be further obscured behind existing scroll work, posts, and balustrades. This treatment would retain the elements key to the entrance structure,

as well as the sense of openness associated with these areas.

### Site Design/Landscaping

The historic character of a home is often defined by the surrounding site design and landscaping. So, while much time and energy is devoted to the rehabilitation of the structure, it is equally important to identify features such as fences and walls, pathways, plant materials, exterior lighting, benches, drainage and ditch systems, and outbuildings. The relationship of each of these features to one another and the historic home is also notable in defining the historic character.

Retaining and preserving these elements should be considered with any new addition which extends the building plan into existing open space or landscaped area. Should site disturbance of this kind occur, archaeological studies of the area could be undertaken.

To maintain the site, an appropriate drainage plan should be designed to protect buildings, as well as the landscape. And, of course, all of the maintenance treatments discussed above should be applied to any similar surfaces, such as fences and outbuildings, which benefit from periodic cleaning and applications of protective coating.

Replacement or new landscape elements should integrate with the overall site design and convey the same visual appearance as the existing historic features. In addition, they should complement the landscape treatments of surrounding properties.

## 3.3 Sustainability

### Purpose of this Section

This section of the preservation guidelines focuses on green building design and other aspects of sustainability as it relates to historically significant buildings, sites and districts. Promoting a more sustainable community is an important objective in Boise, and the city's preservation program plays a key role in it.

The guidelines in this section demonstrate how historic resources can meet sustainability objectives while also adhering to the city's policies for historic preservation. They address many design features and building components that are also discussed in other sections of the preservation guidelines, so it is important to use these guidelines in conjunction with others found throughout this document.

### Overview of Sustainability and Historic Preservation

#### The Sustainable Benefits of Preservation

The benefits of preserving historic resources and conserving older buildings and neighborhoods in Boise can be described in the three basic categories of sustainability which are: (1) Cultural/Social, (2) Environment and (3) Economics.



#### Cultural/Social Component

Historic landscapes, sites, structures, buildings and features are essential components of the city's identity. Preserving historic places, including both individual landmarks and neighborhoods, helps maintain a connection to the community's heritage. When historic buildings occur in sets within a block, they create a street scene that is "pedestrian friendly," thus encouraging walking and neighborly interaction. This enhances the livability of the community and also helps to sustain its cultural values.



Preserving historic places promotes the three basic categories of sustainability.



#### Environmental Component

Sensitive stewardship of the existing building stock significantly reduces environmental impacts. Re-using a building preserves the energy and resources invested in its construction, reduces demand on landfill space and eliminates the need for producing new construction materials. Manufacturing of many new building materials uses substantial levels of energy. This can be reduced significantly if historic structures are retained rather than demolished.

#### Building Materials

Many historic building materials have long life cycles, which contribute to their sustainability. Buildings constructed with wood, stone, and brick were built for longevity in a manner that also allows for repairs.



## Building Energy Savings

An older window is often falsely accused of being a major source of heat loss, when other parts of a building are typically the major sources. For example, as much as 50% of the energy lost from a house is from air infiltration through the attic, uninsulated walls, and around the windows and door cavities, not through the glass in a window itself. Repairing, weather-stripping and insulating an original window is typically more efficient and much less expensive than new windows, as well as sound preservation practice.

Adding 3.5 inches of insulation in the attic has three times the R value benefit compared with moving from the least energy efficient single pane window with no storm to the most efficient new window. Other techniques to improve efficiency without replacing historic features include adding weather stripping to windows and doors, interior storm windows, and the installation of insulated window shades.

## Embodied Energy

Embodied energy is the total energy expended to create and maintain the original building and its components. Preserving a historic structure retains this energy. If demolished, this energy investment is lost and significant new energy demands are required to replace it.

## Construction Quality

As a rule, the quality of early construction and materials was higher than those used in many late 20th Century buildings. Lumber used in early Boise came from mature trees, was properly seasoned and typically milled to "full dimensions," providing stronger framing and construction.

## Local Climatic Design Solutions

The majority of historic buildings were designed to respond to their local climate. The building and its components were located and designed to allow occupants to control levels of natural daylighting, passive solar heating, and cross-ventilation. These climatic responses in the design of a building allow an occupant to operate the building and its components in a manner which maintains comfortable interior conditions without modern mechanical systems for air conditioning and heating.



## Economic Component

Historic buildings represent substantial investment made by previous generations. Using these existing assets yields economic benefit and adds value. Protecting local historic districts can lead to higher property values for the individual historic resource and for the historic district in which it is located. Other benefits include increased heritage tourism and job creation in rehabilitation industries. These industries often include more local jobs than new construction industries.

## Basic Sustainability Principles for Historic Properties

With an understanding of the basic sustainability benefits of historic preservation in Boise, it is now important to review the key principles which underlie the more specific design guidelines that appear later in this section.

The following principles apply to all projects:

### 1. Think big, act small

To achieve a historically and environmentally sensitive project, it is important to understand the over arching goals of that improvement project. When planning any project, first determine its overall goal, then consider which method of achieving that goal will use the least resources and have the least impact to the historic resource.

### 2. Make best use of inherent conservation features

Optimizing a building's inherent sustainability features is a key step in any energy conservation project. Managing effectively the existing energy saving features of a historic structure both conserves resources and is sound preservation practice.

### 3. Minimize negative impacts on the historic resource when installing a new component

When installing new components on a historic structure, such as those for energy collection, it is important that they leave no permanent negative impacts to the structure. Locate a new component where it will not damage, obscure or cause removal of significant features or materials. Maintain the ability to interpret the historic character of the building when retrofitting for energy conservation or generation.

### 4. Use materials that minimize environmental impacts in their manufacture and maintenance

When new materials are needed, use those which avoid negative environmental impacts.

Such materials include those which are produced locally, are manufactured without use of harsh chemicals, have long life-cycles, are durable in the local climate and which are designed to be repairable and recyclable.

### 5. Use construction methods that minimize impacts on landfill and reduce waste

Preserving the maximum amount of existing building features feasible reduces demolition waste as well as reduces construction waste generated by replacement building materials. When planning a project, remove only what is necessary and reuse as much material as feasible on-site. Utilize deconstruction strategies and repurpose as much of the remaining building materials and components as possible to minimize waste and demand for landfill space.

## Strategy for Existing Non-Contributing Structures Within a Historic District

In Boise’s residential historic districts, the majority of the existing structures are considered “contributors,” meaning they are recognized as having historic significance. They were constructed during the period in which the area took on historic significance and retain sufficient integrity to convey that significance. However, there are other existing structures found in the historic districts which are not considered historically significant. Of these, there are three types to consider in terms of which guidelines for sustainability improvements would apply:

### Existing Building of Recent Construction

---

Some existing buildings are of more recent construction, and therefore have not reached an age for which they might be considered for historic significance. When improvements related to sustainability are contemplated for these properties, the section of guidelines related to new construction shall apply. In this case, the focus is on assuring overall compatibility with the district, not on preserving specific features of the existing building.

### Older Existing Building with Lost Integrity

---

Some structures may exist that date from the period of historic significance for the specific district, but that have been so substantially altered, they have lost their integrity. For these, the guidelines for new construction will also apply. However, there may be situations in which the owner elects to restore the original design. In such a case, the guidelines related to historic buildings should be used.

### Buildings of the Recent Past

---

Finally, there are some structures reaching an age at which they may be considered for historic significance, but have not been officially designated as such. In general, the sustainability guidelines related to new infill construction apply as these properties, while significant, have yet to be designated as such. However, for properties that clearly have integrity of design from their original period, owners are encouraged to use the guidelines for the treatment of historic properties.



### 3.3.1 Developing an Efficiency Strategy for Development within a Historic District

#### Efficiency Strategy for a Historic Property

Follow these basic steps when considering an energy efficiency rehabilitation project:

##### Step 1:

Establish Project Goals.

##### Step 2:

Maintain Building Components in Sound Condition.

##### Step 3:

Maximize Inherent Sustainable Qualities.

##### Step 4:

Enhance Building Performance.

##### Step 5:

Add Energy-Generating Technologies Sensitively.

Follow these basic steps when considering a rehabilitation project:

#### Step 1: Establish Project Goals

Develop an overall strategy and set of project goals to maximize the effectiveness of a project. This will establish a broad view that places individual actions into context. Project goals should focus on minimizing use of resources and energy, avoiding negative environmental impacts and retaining the historic integrity of a property. Strategies should maximize the inherent value of the historic resource prior to considering alterations or retrofitting with energy generation technology.

To inform a project strategy, also consider conducting an energy audit. An energy audit can give a comprehensive view of how energy is currently used in the daily and seasonal cycles of use, and can also provide perspective on the payback of investment for potential work on the building. For example, an energy audit, when examined based on an overall strategy, may demonstrate that priorities should be on increasing insulation in walls, ceilings and foundations, rather than replacing windows.

## Step 2: Maintain Building Components in Sound Condition

Maintaining existing building fabric reduces negative environmental impacts. Re-using a building and maintaining its key features preserves the energy and resources invested in its construction and removes the need to produce new construction materials.

### Deconstruction and Building Material Re-use

Deconstruction refers to the careful disassembly of a building, or its components, such that the materials can be reassembled or reused in other construction. While maintaining historic building materials in place is best, occasionally their removal will be necessary. To the maximum extent feasible, historic building materials approved for removal should be either reused on site, or repurposed for use off-site. Keeping these historic building materials in use will reduce demand on landfill space and maintain a greater supply of appropriate materials for the repair of other historic properties in Boise.

#### 3.3.1 Plan for the repurposing of historic building materials when approved for removal or demolition.

##### Appropriate:

- a. Repurpose the maximum amount of historic building materials feasible.
- b. When alternatives to demolition have been exhausted, and demolition of a historic property approved, a deconstruction program should be used to guide the careful salvage of historic materials, details and features.
- c. Consider repurposing other intact and salvageable building materials as well.



### Appropriate



*The porch on this home helps to buffer temperature swings.*

## Step 3: Maximize Inherent Sustainable Qualities.

Many historic buildings were built with resource and energy efficiency in mind. Construction methods focused on durability and maintenance, resulting in individual building features that can be repaired if damaged, thus minimizing the use of materials throughout the building's lifecycle.

Buildings were also built to respond to local climate conditions, integrating passive and active strategies for year-round interior climate control which increase energy efficiency. Passive strategies typically include building orientation and features such as roof overhangs and windows to provide both natural daylighting as well as management of solar heat gain. Active strategies typically include operable building features such as awnings and double-hung and transom windows.

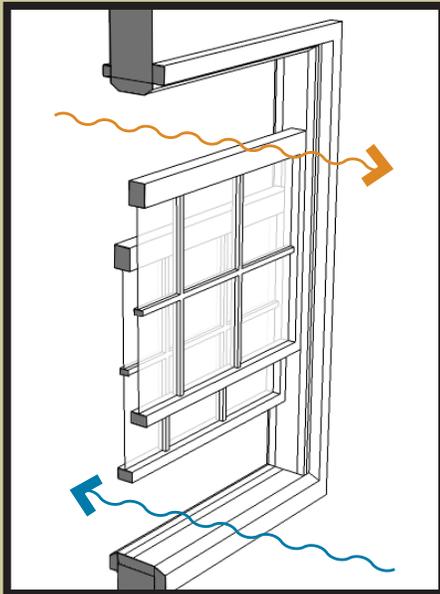
### Appropriate



*Original energy saving building features and systems, such as these operable shutters, should be maintained in good operating condition.*

### Appropriate

#### Double Hung Window Ventilation



*The double hung windows found in many historic structures simultaneously allow for transferring cool air in and warm air out during summer months.*

Identify a building's inherent sustainable features and operating systems and maintain them in good operating condition. In some cases, these features may be covered, damaged or missing; repair or restore them where necessary. Original energy and resource saving building features and systems should be maintained in good operating condition.

#### 3.3.2 Preserve the inherent energy efficiency of an original building.

##### Appropriate:

- Identify a building's inherent sustainable features and operating systems and maintain them in good condition.
- Repair covered, damaged or missing features where feasible.
- See [Chapter 3](#) for more information on identifying these features.

#### 3.3.3 Maintain a building's energy conserving features in operable condition.

##### Appropriate:

- Retain original operable features such as shutters, awnings and transoms, which increase the range of conditions in which a building is comfortable without mechanical climate controls.
- Repair or restore covered, damaged or missing features where necessary.
- See the guidelines for awnings on ["Awnings" on page 62.](#)

#### Historic Landscape Features

Many existing landscapes provide environmental and climate moderating benefits to a site, helping to moderate internal house temperatures throughout the year, and to retain water on site. These features should be maintained and used to advantage. See Section 3.3.2 *Landscape and Site Improvement Strategies for Sustainability* for landscape guidelines.

## Step 4: Enhance Building Performance

A historic building's inherent energy efficiency can be augmented using techniques which improve energy efficiency without negatively impacting historic building elements. Noninvasive strategies such as increasing insulation, weatherization improvements and landscaping should be considered.

### Weatherization Improvements

---

#### 3.3.4 Use noninvasive strategies when applying weatherization improvements.

**Appropriate:**

- a. Adding weatherstripping, insulation and storm windows are energy efficient, cost effective, and historically sensitive approaches.
  - b. Weatherstrip original framework on windows and doors.
  - c. Install additional insulation in an attic, basement or crawlspace as a simple method of improving a building's energy efficiency. Provide sufficient ventilation for interior spaces to avoid moisture build-up in the wall cavity.
  - d. Where applicable, install draft stoppers in a chimney. Open chimney dampeners can increase energy costs by up to 30 percent.
  - e. Install weatherization strategies in a way that avoids altering or damaging significant materials and their finishes.
  - f. Use materials which are environmentally responsible and that will not interact negatively with historic building materials. (See "[Materials](#)" on page 58 for more information on green materials.)
-

## Efficiency of Original Windows and Doors

Historic windows can be repaired more easily than often thought. They were built with well-seasoned wood and other durable materials. Repair and adding weatherstripping usually will be more energy efficient and much less expensive than replacement. Substantial amounts of information are available that document the energy saving benefits of retaining and repairing a historic window, rather than replacing it.

### 3.3.5 Enhance the energy efficiency of original windows and doors rather than replacing them in an efficiency improvement project.

#### Appropriate:

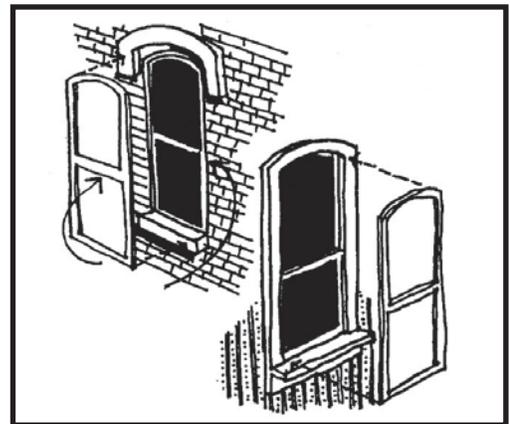
- a. Make best use of original windows; keep them in good repair and seal all leaks.
- b. Safeguard, retain and reuse early glass, taking special care in putty replacement.
- c. Maintain the glazing compound regularly. Remove old putty with care.
- d. Use operable systems to enhance performance of original windows. This includes storm windows, insulated coverings, curtains and awnings.
- e. Place storm windows internally when feasible to avoid the impact upon external appearance.
- f. Use storm window inserts designed to match the original frame if placed externally.
- g. Replacing with double pane glazing may be acceptable where original glazing has been lost and the frame can support the weight and profile. A storm window is still more efficient, however.
- h. Install an insulated window shade.



#### Appropriate



#### Appropriate



*Storm window inserts are a noninvasive strategy for a weatherization improvement. It captures winter heat, while retaining the buildings historic character and materials.*

## **Step 5: Add Energy-Generating Technologies Sensitive.**

The flexibility of many historic structures allows for the respectful integration of energy efficiency technologies. However, enhancing the inherent efficiency of a historic structure will often be significant enough that the addition of energy generation technologies isn't the most practical solution. Utilize strategies to reduce energy consumption prior to undertaking an energy generation project.

When it is determined that adding new energy generating technologies will be beneficial, maintain the resource's historic integrity and the ability to interpret its historic significance. As technology and society's understanding of the meaning of sustainability continue to develop, so too will the methods for integrating these technologies with a historic building. As new technologies are tried and tested, it is important they be installed in a reversible manner such that they leave no permanent negative impacts to a historic structure.

See Section 4.3 for guidelines for Solutions for Energy Generating Technology.

---

## Residential Building Energy Efficiency Diagram

*This diagram summarizes the strategy and principal direction in the guidelines for a rehabilitation project for energy efficiency on a residential building. These measures enhance energy efficiency while retaining the integrity of the historic structure.*

### Chimney

- Install draft stopper
- See "[Weatherization](#)" on page 38

### Attic

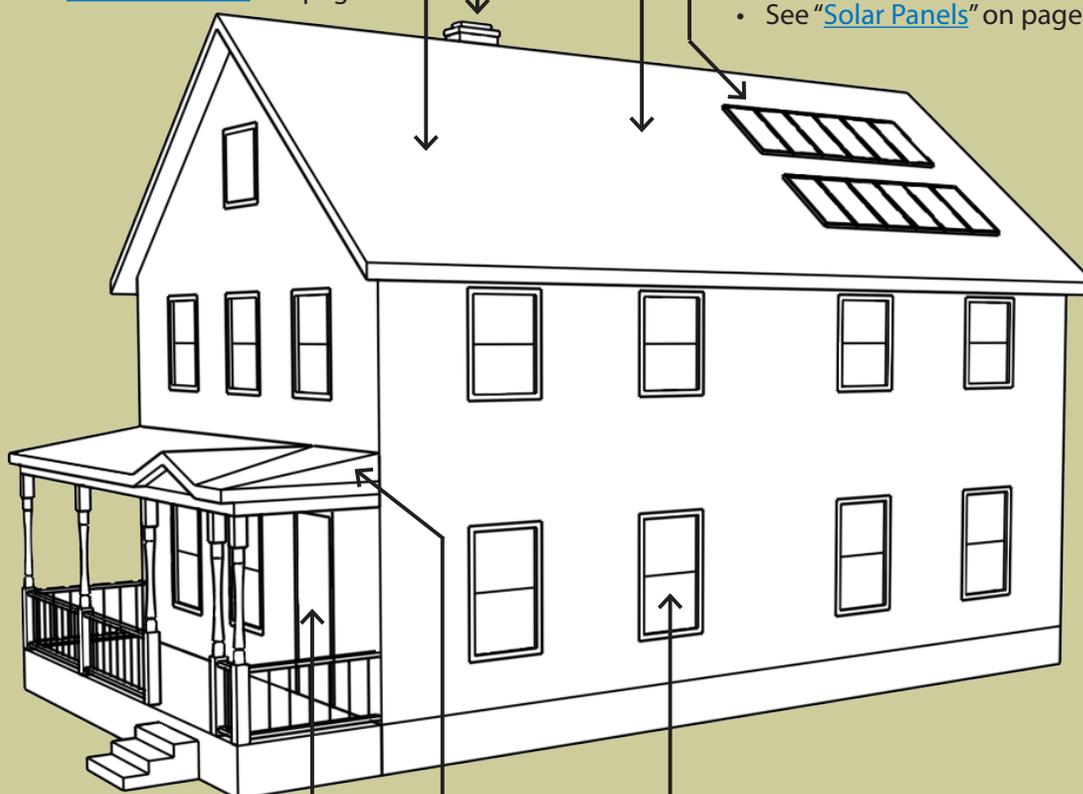
- Insulate internally
- See "[Weatherization](#)" on page 38

### Roof Material

- Retain & repair
- See "[Roof Materials](#)" on page 59

### Solar Panels

- Set back from primary facade
- See "[Solar Panels](#)" on page 66



### Doors

- Retain & repair original or early doors
- Weatherstrip
- See "[Doors](#)" on page 38

### Shutters, Awnings & Porches

- Restore porches and awnings
- See "[Awnings](#)" on page 62

### Windows

- Repair & retain original or early windows
- Retain original glass
- Enhance thermal & acoustic efficiency with storm windows (preferably interior)
- Weatherstrip
- See "[Windows](#)" on page 39



### 3.3.2 Landscape and Site Improvement Strategies for Sustainability

Landscapes have a very significant impact on the sustainability of a site. For example, a landscape design can be used to buffer the temperature swings of a home. It can also contribute to food production, water efficiency, clean air and minimization of urban heat island effects. Design landscape improvements to enhance the sustainability of the building, site and neighborhood, while also retaining the historic character of the site. This means locating new landscape features in ways that retain the historic significance of the property.

#### Overall Strategy

Follow these basic steps when planning a landscape project:

#### Step 1: First consider the significance of the site.

In many cases, the historic character of the landscape is an important feature for a property. However, there are some in which the existing landscape is less important as a character-defining feature, and more flexibility in new landscape design may be appropriate. Maintain an existing historically significant landscape or landscape feature. Incorporate historic site patterns and features when designing a landscape improvement project.

#### Step 2: Maintain sustainability benefits of the existing landscape.

Identify existing landscape features that provide green benefits such as summer shading, water retention or food production. Maintain these features to the greatest extent feasible.

#### Step 3: Plan landscape improvements to enhance sustainability.

A landscape can significantly contribute to the overall sustainability of a home, its site and its neighborhood. Energy efficiency can be enhanced with landscape features which provide shading in the summer and solar access and wind protection in the winter. A landscape can include a tree canopy which helps clean the air, reduce the urban heat island effect and promote water conservation. Design landscape additions to improve building, site and neighborhood sustainability, while also respecting the historic character of the property.

## Historic Landscapes

Many existing historic landscapes provide sustainability benefits to a site and the district. Mature trees create summer shading, purify the air and help minimize urban heat island effects. Mature root systems promote water retention and soil quality. Many landscapes also provide local food production. Identify existing landscape features that provide green benefits and maintain these features to the greatest extent feasible.

### 3.3.6 Maintain historic landscape features and those that provide sustainability benefits.

#### Appropriate:

- a. Identify and maintain these features to the greatest extent feasible.
- b. Should replacement or removal be necessary, provide new landscaping with equivalent or greater benefits.

## Landscape Improvements for Sustainability

Site designs, including landscapes and structures, can take advantage of microclimatic conditions for energy conservation. When designing site improvements, consider how they will support building, site and neighborhood sustainability. Consider solar and wind exposure in all seasons in siting decisions as well as topography. Research the local climate to understand and best take advantage of wind, water and solar patterns on a site.

## Vegetation

Trees, shrubs and other plants should be located to maximize their sustainable benefits. Primary goals of vegetation choices should be to select native, drought-tolerant and edible species. Also select species which provide other benefits such as nitrogen fixation, medicinal properties or that support the growth of other plants on site.



### Appropriate



*Existing mature trees provide summer shade for a home and should be retained as part of the existing sustainability features of a site.*



### Appropriate



*Traditional landscape features such as deciduous trees and shrubs buffer summer sun and should be retained.*

**3.3.7 Select plant species that support sustainability.**

**Appropriate:**

- a. Use plant materials that convey characteristics of scale, color and texture similar to those used historically.
- b. Prioritize the use of local, edible, medicinal and drought-tolerant species.
- c. Use species with benefits such as nitrogen fixation or that support the growth of other desirable plants on site.
- d. Research plant species and their interactions to make compatible choices.

**3.3.8 Locate plants to maximize sustainability benefits while retaining the historic character of the property.**

**Appropriate:**

- a. Maintain at least 80% vegetative cover in a front yard. Base percent coverage on the mature size of plants.
- b. Plan for the mature size of plants and their root structures as well as the time it takes them to mature.
- c. Consider the seasonal impacts of mature plants on solar and wind access both on site and for neighbors.
- d. Locate deciduous trees and other vegetation to provide for summer shading and allow winter solar access.
- e. Locate vegetation to provide wind protection in the wintertime while not blocking the predominant summer breezes.

**Not Appropriate:**

- f. Vegetation which substantially blocks wind or solar collectors.
- g. Vegetation which substantially detracts from the ability to interpret

the historic significance of a property or obscures key features of historic landscapes or buildings.

- h. Gravel or non-organic materials as the primary ground cover in a front yard.

**3.3.9 Design a landscape or garden to minimize the resources necessary for its maintenance.**

**Appropriate:**

- a. Design a landscape to minimize the water necessary to maintain it. (See the following section on water use.)
- b. Select plant species and species combinations to minimize or avoid the use of artificial or chemical fertilizers, herbicides and pesticides.
- c. Use complementary plant species in combinations which minimize the labor necessary to maintain the landscape or garden. (Also see "[Permaculture](#)" on page 49.)

**Acceptable:**

- d. The use of alternative vegetation in a front yard which resembles a lawn where grass is too resource intensive.

**Water Use**

---

While Boise has many opportunities for renewable energy sources, it has limited water resources. Therefore, it is important to maximize the efficiency of water used for landscaping. This includes getting maximum use of water on site, reducing run-off to sewer systems and occasionally the storage of rainwater for use on site.

**3.3.10 Design landscape improvements to maximize the efficiency of water use on site.**

**Appropriate:**

- a. Design a landscape improvement to utilize both plant species and planting methods to minimize or eliminate watering. For example, placing

- drought-tolerant plants along the contours of a sloped site will help slow runoff and increase percolation into the soil, thereby reducing or eliminating the need to water those plants.
- b. Where watering systems are necessary, use those which minimize water loss, such as drip irrigation.
  - c. Provide natural stormwater drainage, storage or usage systems on site. For example, a rain garden or similar small swale can be utilized to both minimize watering demand and to reduce runoff and sewer system demand.
  - d. Place more water intensive species in areas which receive shade, as this reduces evaporative water loss.

**Acceptable:**

- e. Also consider use of xeriscaping or permaculture strategies for landscape design to maximize water efficiency. (See the following sections for more information.)

**Not Appropriate:**

- f. Front yard landscape plans which do not retain a predominant front lawn character.

**Paving Materials**

Permeable paving maintains moisture in the soil, reduces demands on storm sewer systems and allows for ground water recharge.

**3.3.11 Design a permeable paving system to convey a character similar to historic paving materials.****Appropriate:**

- a. The application of permeable paving materials should be similar to historic paving methods.

- b. The use of paving strips and paving stones or bricks for walks and drives.

**Shading Structures****3.3.12 Consider a shading structure where it is in character with the historic structure.****Appropriate:**

- a. A pergola or other shading structure is appropriate where it is in character with style of the historic home.
- b. The use of deciduous vegetation on a shading structure is encouraged.

**Not Appropriate:**

- c. Shading structures which significantly detract from the ability to interpret the historic significance of a home.

**Appropriate**

*A pergola or other shading structure which supports deciduous vegetation may also be considered where it is in character with the historic structure.*

## Fences and Walls

---

Walls are generally limited to the Harrison Boulevard and Warm Springs Avenue districts.

### 3.3.13 Design a new fence or site wall to minimize its environmental impacts.

#### Appropriate:

A new fence or wall should:

- a. Use green materials. (See "[Green Materials](#)" on page 58 for more information on green materials.)
- b. Take into account site impacts such as shading, natural topography and drainage.

#### Acceptable:

- c. Use of edible or drought tolerant shrubs rather than a fence or wall.

#### Not Appropriate:

- d. Use of synthetic materials, materials which cannot be recycled, or those not proven to be durable in Boise's climate.
- e. Fences or walls which significantly detract from the ability to interpret the historic significance of a home.

## Site Lighting

---

### 3.3.14 Use efficient site lighting.

#### Appropriate:

- a. Use efficient, directional and task lighting features to minimize the amount of lighting fixtures needed.
- b. Shield fixtures to minimize light spill onto adjacent properties and into the night sky.
- c. Select warm tones in energy efficient lighting, as a proliferation of cool tones could alter the neighborhood character.



## Appropriate

---



*The use of edible plants rather than a solid fence or wall is acceptable.*



## Appropriate



*Locating a vegetable garden in a side yard is appropriate.*



## Acceptable



*This garden (#1) is located to the side of the front yard to maintain a pre-dominant grass front yard character (#2) immediately in front of the historic home.*

## Special Landscape Designs

### Vegetable Gardens

Growing a vegetable garden can increase one's self-sufficiency and provide a significant source of local food. When planting a vegetable garden maintain the ability to interpret the significance of a historic structure. Consider its size and location with respect to the historic structure(s) as well as any historic site features when determining the location of a garden.

#### 3.3.15 Design and locate a garden to minimize impacts to a historic structure.

##### Appropriate:

- a. Consider historic site patterns and uses when locating a garden.
- b. Consider the mature height and root structure of garden plants to avoid impacts to historic buildings and paved areas.
- c. Consider integrating food plants throughout the overall landscape design to minimize garden size. (Also see the following section on permaculture.)
- d. Locate a garden to the side or rear of a house.

##### Acceptable:

- e. When site conditions, such as solar access and mature trees, prevent its location in a side or rear yard, a garden may be placed in a front yard.
- f. When located in a front yard, design a garden to remain visually subordinate to the traditional character of the site.

##### Not Appropriate:

- g. Sizing of a garden which overwhelms the scale of the home, or detracts from the ability to interpret its historic significance.
- h. Removal of historically significant vegetation or mature trees.

## Xeriscaping

Xeriscaping is a method of landscaping and/or gardening which requires zero artificial irrigation. This is particularly appropriate for Boise's climate where water is not abundant. Where xeriscaping is used, maintain the traditional character of the property and district.

### 3.3.16 Design a xeriscape landscape to maintain the traditional character of a lot as viewed from the public right of way.

#### Appropriate:

- a. The size and location of vegetation should reflect traditional planting patterns.
- b. Utilize low growing ground cover plant species in a front yard which reflect the character of a traditional lawn.
- c. Planting methods which minimize water use while retaining the character of the district, such as planting along contour lines at the edge of a site.

#### Not Acceptable:

- d. Gravel or non-organic materials as the primary ground cover in a front yard.
- e. A front yard landscape which does not maintain at least 80% vegetative cover at mature size.



## Appropriate

---



*Utilize low growing ground cover plant species in a front yard which reflect the character of a traditional lawn.*

## Permaculture

Permaculture is a gardening and landscaping method which uses a systems-level approach to maximize the efficiency of a site. A permaculture landscape is designed to include a wide variety of plants organized in a manner to be self-sustaining and require no added or artificial fertilizer, pesticide or irrigation. By basing a garden or landscape design on naturally occurring biological relationships and systems, the overall efficiency, diversity and productivity of the landscape is increased. The use of permaculture design methods in character with the historic district are encouraged.

### 3.3.17 Design a permaculture landscape to maintain the traditional character of a lot as viewed from the public right of way.

#### Appropriate:

- a. Select and locate plant species which create positive relationships while reflecting the traditional planting patterns of the district.
- b. Consider all relationships on and with the site when planning for the long term sustainability of the landscape system. Relationships between site and building as well as between plants with other plants on site should be considered.
- c. Use complementary plant species in combinations which minimize the resources and labor necessary to maintain their productivity.

#### Not Acceptable:

- d. Landscaping which overwhelms the scale of the building, or detracts from the ability to interpret its historic significance.
- e. A front yard landscape which does not maintain at least 80% vegetative cover at mature size.



## Appropriate



*Use complementary plant species in combinations which minimize the resources and labor necessary to maintain their productivity. In this example, peas and grapes are grown together as complementary species.*

## Improvements in the Public Right of Way

The public right of way includes landscaped medians, the tree lawn, or planting strip which lies between the street curb, a detached sidewalk and the sidewalk itself. In general, the same principles for sustainability in landscape design of a site apply to landscapes in the public realm. Maintaining the historic character while minimizing the resources necessary for maintenance are primary considerations. While replacement of historic plant materials is generally not appropriate, there are cases in which alternative plant materials, including drought-tolerant ground covers, may be considered instead of more traditional grasses. Alternative materials should appear similar in character to those used historically.



1. In general, the same principles for sustainability in landscape design of a site apply to landscapes in the public realm. Maintaining the historic character of these areas while minimizing the resources necessary for their maintenance are primary considerations.
2. Preserve mature street trees.
3. Use of porous paving in applicable areas of planting strips, such as drives and walkways.

## Ground Cover

### 3.3.18 Maintain the visual appearance of a traditional lawn in medians and planting strips.

#### Appropriate:

- a. The use of drought tolerant grasses that appear similar to those used historically.
- b. Maintain proper irrigation to street trees.

#### Acceptable:

- c. Use drought-tolerant ground cover plants that will convey a character similar to that of traditional lawn.
- d. Use of porous paving in applicable areas of planting strips, such as drives and walkways.

#### Not Appropriate:

- e. Replacing large areas of grass in the public right of way with inorganic material.

## Street Trees

### 3.3.19 Preserve mature street trees to the extent feasible.

#### Appropriate:

- a. If a mature street tree must be removed, replace it with a new tree of the same species.
- b. Consult with Community Forestry when selecting plant species.

#### Acceptable:

- c. If replacing in kind is not recommended, in terms of sustainable species, then select a species that is similar to the original.
-

## Chapter 4: Design Guidelines for Additions to Existing Buildings

New additions to existing buildings in the historic districts are widespread and demand special consideration. Many additions are occurring due to the desirability of living in an historic neighborhood in close proximity to the Boise City downtown, while also responding to the wishes for contemporary space needs.

Generally, an addition was often secondary in scale and character to the original building. Heights of additions were usually positioned below that of the main structure. Today, additions include new wings for a master bedroom, additional bathrooms, dormers to an existing roof, an expansion of a kitchen or living room. Concerns arise when additions are very large and threaten not only the integrity of the structure but visual continuity and appeal of the neighborhood.

A new addition should be designed and constructed so that it does not detract from the original design. Quality design and materials are critical. An addition should not overpower, obscure, damage, or destroy character defining attributes of the house. A new addition should also respect the buildings and the fundamental design elements of the district that provide an overall historic character. Ultimately, if the addition were removed, it should still be possible to rehabilitate the building to its original form.

Increasingly, new additions are also being constructed following the principles of sustainability. Alterations and new additions should continue the use of green building strategies, while maintaining consistency with the historic character of the building and its context.

### 4.1 New Additions

**Policy:** Design and construct new additions to be congruous with the original building in a manner that preserves the integrity and character of the building and buildings within the surrounding block; maintain the character of a rooftop and the mass and scale of existing buildings.

An addition should be designed and constructed to be recognized as a product of its own time and distinguishable from and congruous with the historic building. There are many different ways of making this distinction from old to new construction. Some of the more common techniques include a subtle change in material, changes in setbacks between the existing building and addition, the use of differential architectural style elements, and creating a jog in the foundation.

Maintaining the integrity both of the site and the building is extremely difficult in constructing additions that remove or substantially modify the entire second floor of a historic building. In many situations, the burden may be too great since the property may provide other alternative possibilities for additional livable space. For example, additions to the back and side elevations of the house are often appropriate, depending on how the yards (open space) contribute to the character and setting of the site and district. Basement (below grade), or ground-level additions that are subordinate to the original building are usually the most appropriate paths for consideration. In determining whether or not a Certificate of Appropriateness should be issued, the Commission will look at whether the site can handle the addition or if the addition will overwhelm the site, setting and character defining facade. Open space for the lot shall be maintained in accordance with [Section 5.3](#)

In situations where preferred options are not

---

feasible, a dormer addition can augment headroom in an attic and enhance use of a space in the building. Careful attention should be taken in designing and constructing these additions. Dormers that historically did not exist should be placed at the rear of the house and as much out of view from the street or public right-of-way as possible. They should be designed in proportion to the roof area and to other windows in the house. Special care in design may be required for corner lots, which may have two dominant elevations. The introduction of new dormers, when required for the habitation of heretofore unused attic space, must be designed to minimize damage to the historic roof forms of the existing building.

### It is Generally Appropriate to:

- 4.1.1 Design a new addition to preserve the established massing and orientation of the building and character of the block.
- 4.1.2 Set back a new addition from the primary façade of the original building to maintain original proportion, massing, size, and scale. For example, setting back a wall plane a few inches.
- 4.1.3 Relate rooflines, the pitch, and orientation of the new addition to the primary building.
- 4.1.4 Use windows visible from the public right-of-way that are congruous with those of the original building. For example, use a consistent wall-to-window ratio.
- 4.1.5 Use similar materials as found on the original building.
- 4.1.6 Retain compatibility with the original foundation through maintaining similar height and in matching materials.
- 4.1.7 Consider ground or basement additions

before the addition of dormer(s). Under unique circumstances driven by site constraints, dormer(s) additions should be designed in proportional scale to the original roof and should not visually compete (see [Figure 4.1](#)).

- 4.1.8 Use a dormer in character with the style of the house and of typical form such as gable, hip, or shed (see [Figure 4.2](#)).
- 4.1.9 Maintain proportional lot coverage as found on the neighboring properties of the same block; maximum lot coverage of all buildings should not exceed 30% of the total lot area. Minimum open space should be 40% of the total lot area (see [Figure 5.3.2](#)). Any exceptions to these percentages will be closely scrutinized.

## It is Generally Not Appropriate to:

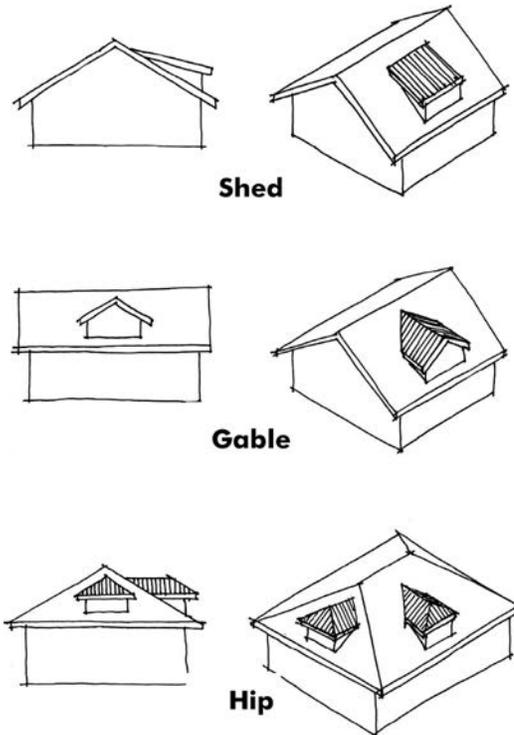
- 4.1.10 Construct a new addition that creates an appearance inconsistent with the historic character of the building (see [Figure 4.3](#)).
- 4.1.11 Overpower, cover, obscure, or eliminate historically significant architectural, stylistic, or character-defining features such as windows, doors, porches, roof lines.
- 4.1.12 Remove an entire second floor roof or attic and replace it with a structure that is out of character with the original building (see [Figure 4.4](#)).
- 4.1.13 Add a dormer to a primary elevation of the building simply as a decorative feature.
- 4.1.14 Raise a first-floor or entrance more than an entire story to accommodate a garage or locate a primary dwelling above a garage.
- 4.1.15 Construct “pop-top” or “box-top” additions under any circumstances through the removal of an entire second floor roof or attic and replace it with a structure that is out of character, mass, and form with the original building (See [Figure 4.4](#)).



## Appropriate

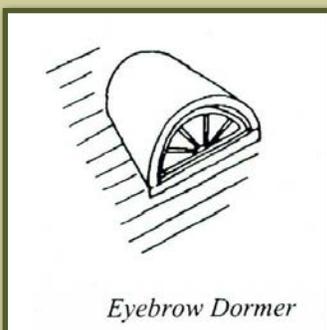
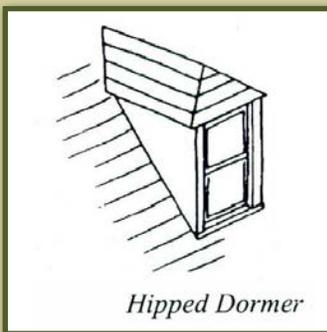
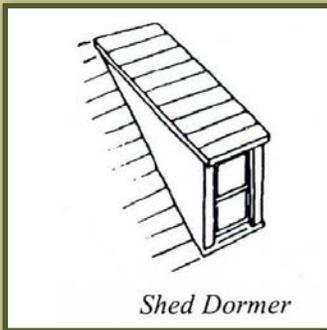
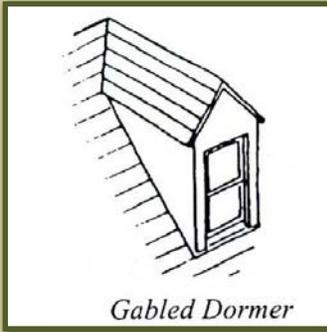
**Figure 4.1**

Three examples of common roof forms and appropriate dormer additions. If a new dormer is necessary, it should be in character to the style and proportion of the primary building.



**Figure 4.2**

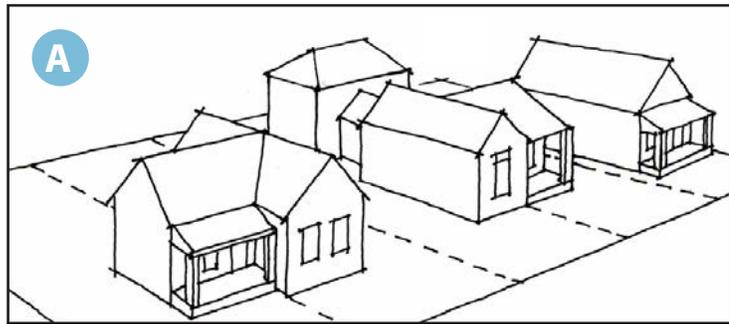
*Typical styles of dormers that could be used throughout the districts.*



**✗ Not Appropriate**

**Figure 4.3**

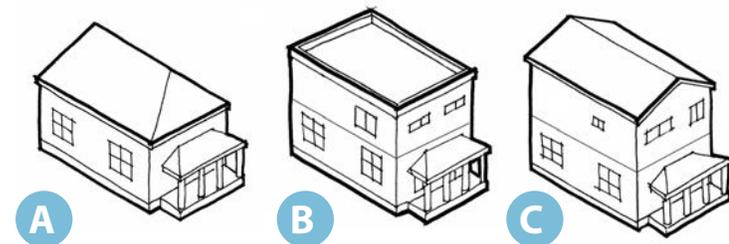
- A. The addition on the back of the existing building is too large and not appropriate.
- B. The addition on the right is larger in scale and overwhelms the existing building.

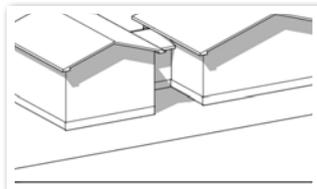


**✗ Not Appropriate**

**Figure 4.4**

- A. The original character of the building;
- B. The “pop-top” addition is not appropriate because of the overwhelming effect it often creates;
- C. The “box-top” addition is also not appropriate.





## 4.2 Sustainability and Energy Efficiency in New Additions

A new addition to a historic building offers opportunities to improve operating efficiency for the entire property and to help extend the life of the primary structure. A new addition should employ best practices in sustainability while remaining compatible with the historic character of the home and district. Sensitive improvements to the existing building for energy efficiency may be considered where they preserve the building's character. Improvements to enhance energy efficiency should be planned to complement the inherent energy-conserving features of the original building as well as its character-defining features. As a part of the design process, one should determine how the addition itself will meet sustainability objectives as well as how the addition will help continue the use of the primary structure.

### Locating A New Addition for Environmental Benefits

When placing an addition on a historic building, careful consideration should first be given to assuring compatibility with the historic structure, then to maximizing the potential for environmental benefits. The design should take advantage of existing site features, the orientation of the property, and its prevailing wind and solar patterns.

#### 4.2.1 Locate an addition to take advantage of opportunities for energy conservation.

Appropriate:

- a. Consider impacts and benefits for both the primary structure and the addition as well as those to adjacent properties.

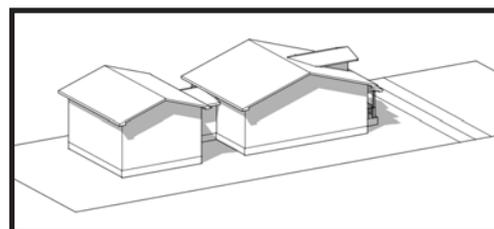
- b. Locate an addition to maximize the potential for natural daylighting and solar energy collection.
- c. Position an addition to utilize predominant wind patterns for cross-ventilation.
- d. Also consider the shade and wind break benefits of mature trees when positioning an addition on site.

Not Appropriate:

- e. Locating an addition such that it blocks solar access or natural ventilation to the primary structure and thereby inhibits making best use of the inherent energy saving qualities of the historic building.
- f. Locating an addition in a manner which significantly detracts from the ability to perceive the historic character of the primary structure.



### Appropriate



*Locate an addition to maximize the potential for natural daylighting and solar energy collection. In this example, the addition is massed to take advantage of southern sun on the rear wall and rear facing roof plane, while also maintaining solar access to the primary structure.*

## Addition Massing

The manner in which the basic form of an addition is configured will influence its compatibility with the historic home and its opportunities for making use of energy saving design strategies. Arrange the massing of an addition to make best use of natural daylighting, passive solar heating, cross-ventilation and other passive climate control techniques. The overall mass should remain compatible with the primary structure and with the character of the district. The following guidelines apply to the massing of a new addition; however, they should not conflict with meeting the guidelines for scale and massing in Section 4.1.

### 4.2.2 Design the mass of a new addition to remain compatible with the primary structure while maximizing energy saving and generating opportunities.

Appropriate:

- a. Shape the addition's mass to take advantage of natural daylighting, passive solar heating, cross-ventilation, and other climate control opportunities for both the addition and the primary structure.
- b. Orient roofs to accommodate solar collection, while also reflecting established orientation patterns in the district.

Acceptable:

- c. A connector wall may also provide some articulation in wall planes, which can create summer shading or increase solar access to interior spaces or the primary structure.



## Appropriate



*A connector wall provides articulation in wall planes, which can create summer shading or increase solar access to interior spaces or the primary structure.*

### Not Appropriate:

- d. Locating the mass of an addition such that it substantially reduces energy saving opportunities for the primary structure.
- e. Locating an addition in a manner which significantly detracts from the ability to perceive the historic character of the primary structure.
- f. Massing which does not comply with the guidelines in Section 4.1.

## Materials

Designing for sustainability will include use of renewable materials which are green in their manufacture and have proven durability in the Boise climate. They also will be ones that support healthy living environments and that can be reused or recycled when necessary. Many of these materials are similar to those used historically, but others may be somewhat different. In either case, it is important to use green building materials which maintain compatibility with the historic structure and its context.

### 4.2.3 Select green building materials that are compatible with the historic structure.

#### Appropriate:

- a. Use materials that appear similar in scale, texture and finish to those employed historically. Smooth fiber cement board and wood lap siding are examples.

#### Appropriate materials include, but are not limited to:

- b. Locally manufactured.
- c. Easy to maintain.
- d. Proven to be durable in the Boise climate.
- e. Have long life spans.
- f. Recyclable.
- g. Made from recycled or repurposed materials.

#### Not Appropriate:

- h. Materials that are out of scale with those seen historically, or that have a finish which is out of character.
- i. Materials which interact negatively with historic building materials.
- j. Synthetic materials not proven to be durable or which are difficult to repair and recycle.



## Appropriate



*Select green building materials compatible with the historic structure.*

## Green Building Materials

### Green building materials are:

- Locally manufactured
- Easy to maintain
- Proven to be durable in the Boise climate
- Have long life spans
- Recyclable
- Made from recycled or repurposed materials
- Neither manufactured with, nor off-gas, harsh chemicals

- k. Materials which are manufactured using harsh chemicals.
- l. Materials which off-gas harsh chemicals.
- m. Embossed wood grain siding.

## Roof Materials and Reflectivity

Using a highly reflective roof, typically with a light or white finish, is often used as a strategy to reduce heat loads on a building. This technique is only acceptable on a historic structure if it can be achieved in a manner in character with the building style and with the district.

Historically, residential roofs in Boise were clad with wood shingles, which were replaced with asphalt composition shingles, frequently in tan or grey tones that appeared similar to the color of aged wood. In terms of sustainability, retaining an existing roof is preferred. In some cases, however, replacement may become necessary. In general, a new roof should convey qualities of texture, finish and color similar to that seen historically, and the material should have a proven durability in the Boise climate.

### 4.2.4 Select replacement roof materials to retain the historic character of the property.

#### Appropriate:

- a. When replacement is necessary, use a material similar in texture, finish and color to the original.
- b. The use of composition shingles is encouraged.
- c. Use a color compatible with the style of the building; a light tan or grey is appropriate. This will enhance reflective qualities to reduce heat gain in summer months, while retaining the historic character.

#### Acceptable:

- d. A metal roof may be considered on a historic (contributing) building when evidence exists that documents its prior use on that structure. Metal roof profiles should be similar to that found historically, including standing seam, stamped shingle, etc.



### Appropriate



*When compatible with the style of the building, a light tan or grey roof, as show above, is appropriate for reducing heat gain.*

### Not Appropriate:

- e. Use of a metal roof on a historic structure where it was not used historically.
- f. The use of corrugated metal roofing.
- g. Use of a white roof on a historic building where this color is out of character with the style and with the district.

## Windows

The design of windows and the manner in which they are arranged can help to manage environmental conditions and are often key factors in sustainable design. Design window configurations to be effective for passive heating, natural ventilation or daylighting and which are similar to those seen historically.

### 4.2.5 Design windows in an addition to be compatible with the historic structure while maximizing strategies for daylighting, natural ventilation and passive heating.

#### Appropriate:

- a. Use window patterns that are similar in character to those seen historically.
- b. Locate windows for solar access and natural ventilation.
- c. Design and place windows to maximize daylighting and light penetration to interior spaces.
- d. Use operable windows that appear similar in character to those seen historically.
- e. Replacement windows should appear similar to the original in profile, including sill depth and recessed glass.
- f. The use of true divided light windows similar to the original is preferred.

#### Acceptable:

- g. Use of externally applied muntins to mimic divided lights where the profile depth is sufficient to appear similar to true divided lights.
- h. Use of fiberglass windows where they appear similar to the original in profile, including sill depth and recessed glass.



## Appropriate



*Use operable windows on an addition that appear similar in character to those seen historically.*

#### Not Appropriate:

- i. The sole use of spacers within a window pane as a replacement for divided lights.
- j. The sole use of internally applied muntins on a window pane as a replacement for divided lights.
- k. Trombe and Nana walls, or similar extensive areas of glass, are inappropriate as they do not preserve the solid-to-void ratio of windows/walls.

## Traditional Building Elements

When included in an addition, many traditional building elements, such as double-hung windows, deep porches or eaves and operable awnings, can contribute to a sense of compatibility with the historic property. These elements can also help to moderate climatic conditions and save energy. Such traditional elements should be employed in additions to historic buildings in order to help meet sustainability objectives and to assure compatibility with the primary structure. On an addition, new interpretations of these features may also be considered when the overall result remains compatible and subordinate to the historic structure.

### 4.2.6 Incorporate traditional building elements that promote efficiency and allow for natural environmental control in an addition.

#### Appropriate:

- a. Operable awnings (see the following guidelines for awnings)
- b. Porches
- c. Roof overhangs which shade windows during the summer while still allowing for maximum winter solar access
- d. Low infiltration fenestration products
- e. Interior or exterior light shelves/solar screens above south facing windows
- f. Operable shutters

#### Not Appropriate:

- g. Building elements not compatible with the style of the primary structure.
- h. Traditional elements not in scale with the historic structure.



## Appropriate



*The incorporation of traditional building elements that promote efficiency and allow for natural environmental control in an addition, such as these operable shutters, is appropriate when compatible with the style of the building.*

## Awnings

Traditionally, awnings were noteworthy features of many historic residences in Boise, and their continued use is encouraged. Operable awnings are particularly appropriate because they help regulate internal climatic conditions during changing conditions throughout the year. They are typically simple in detail.

### 4.2.7 Use an operable awning where there is a historic precedent for their use.

#### Appropriate:

- a. An operable awning can increase the energy efficiency of a building, providing shading in the summer and solar access in the winter.

#### Acceptable:

- b. Install a fixed awning where using an operable one is not feasible. For example, in a remote location where it is difficult to manipulate an operable awning, a fixed one may be used.

#### Not Appropriate:

- c. Installing an awning in a manner that will damage, destroy or cover significant features.

### 4.2.8 Design an awning to be in character with the building.

#### Appropriate:

- a. Use an awning on a building style with a historic precedent for its use.
- b. Design the awning in the style of the building.
- c. Mount an awning to accentuate character-defining windows or doors.
- d. Use colors that are compatible with the facade. Solid colors are encouraged.
- e. Simple shed shapes are appropriate for rectangular openings.



## Appropriate

*Traditionally, awnings were noteworthy features of many historic buildings, and their continued use is encouraged.*



*It is acceptable to install a fixed awning where using an operable one is not feasible, such as on this sidewall where it would be difficult to manipulate an operable awning.*

#### Acceptable:

- f. Historically, fabric awnings were the most commonly used. An alternative material may be used when its appearance and durability are similar to that used historically and compatible with the style of the building.

#### Not Appropriate:

- g. Odd shapes, such as bullnose and bubble awnings.

### 4.2.9 Design an awning to be in proportion to the building.

#### Appropriate:

- a. The awning should fit in the opening it covers.

#### Not Appropriate:

- b. An awning which covers or obscures significant features.

## Green Roofs

A green roof provides thermal mass to help regulate internal temperature, as well as helps to reduce the urban heat island effect.

### 4.2.10 Avoid adverse impacts to a historic building when installing a green roof.

#### Appropriate:

- a. On the roof of a new addition.

#### Acceptable:

- b. A green roof may be installed on a flat or low pitched roof of a historic building only where it will not be visible from the street.
- c. A green roof may be minimally visible on a secondary or rear facade where it remains subordinate to the historic structure.

#### Not Appropriate:

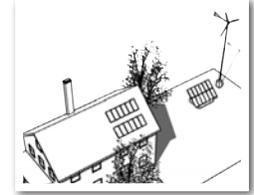
- d. Green roof material used to replace intact historically significant roofing materials.
- e. A green roof of a weight which threatens the structural integrity of the building. If additional structural support is needed, it should only be considered where adverse impact to the building's historic significance can be avoided.



## Appropriate



*This home presents an opportunity for use of a green roof. Use of a green roof on the flat roof of a home is acceptable where it will not be visible from the street.*



## 4.3 Solutions for Energy Generating Technologies on Historic Structures

When integrating modern energy technology into a historic structure, maintain the resource's historic integrity and the ability to interpret its historic significance. Use of energy-generating technologies, such as solar panels or wind turbines, should be the final option considered in an efficiency rehabilitation project. Utilize strategies to reduce energy consumption prior to undertaking an energy generation project. Consider the overall project goals and energy strategies when determining if a specific technology is appropriate for your project.

### General Principles

As new technologies are tried and tested, it is important that they leave no permanent negative impacts to historic structures. The reversibility of their application will be a key consideration when determining appropriateness.

#### 4.3.11 Locate technology to minimize impacts to the historic character of the building.

##### Appropriate:

- a. Locate energy-conserving and -generating systems where they will not damage, obscure or cause removal of historically significant features or materials.
- b. Maintain the ability to interpret the historic character of the building.



##### Appropriate



*Alleys provide a good location for technology in order to minimize impacts to the historic character of a primary building.*

#### 4.3.12 Install new technology in a reversible manner.

##### Appropriate:

- a. Install technology in such a way that it can be readily removed and the original character easily restored.
- b. Use materials which are environmentally friendly and that will not interact negatively with historic building materials.

## Solutions for Specific Technologies

### Solar Collectors

Solar collectors should be designed, sized and located to minimize their effect on the character of a historic building.

#### 4.3.13 Minimize adverse effects from solar collectors on the character of a historic building.

##### Appropriate:

- Size collector arrays to remain subordinate to the historic structure.
- Mount collectors flush below the ridgeline on a sloping roof. This will not cause a significant decrease in the device's solar gain capabilities.
- Minimize visual impacts by setting collectors back from the eaves.
- Exposed hardware, frames and piping should have a matte finish and be consistent with the color scheme of the structure.

#### 4.3.14 Locate collectors to avoid obscuring significant features or adversely affecting the perception of the overall character of the property.

##### Appropriate:

- Preferred locations for solar collectors include site arrays in a rear or side yard, on the roof of an addition or secondary structure, or on the rear portions of the roof on the primary structure.

##### Acceptable:

- Locating collectors on the front portion of a roof oriented to the side yard is acceptable when preferred locations are not feasible.
- Minimize visual impacts by setting collectors back from the front facade.



### Appropriate



*Mount collectors flush below the ridgeline on a sloping roof.*



### Not Appropriate



*These inappropriate collectors contrast too strongly with and overwhelm the character of the historic roof. They are also not sufficiently set back from the primary facade.*

##### Not Appropriate:

- Collectors located on a primary, street-facing roof face.
- Collectors located in a front yard.

# Locating Solar Panels on A Historic Home



## Existing Building

### Features

- Gable facing street, side is south facing

## Appropriate



### Features

- Panels located on rear portion of roof
- Panels set back from eaves
- Panels are flush with the roof
- Panels do not overwhelm the roof

### When should I use this approach?

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

## Acceptable



### Features

- Panels set back from eave, but closer to the front
- Panels are flush with the roof
- Panels do not overwhelm, and are subordinate to, the roof plane

### When should I use this approach?

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

## Not Appropriate



### Features

- Panels are not set back from eave.
- Panels overwhelm the character of the historic roof and structure.

✓ **Appropriate**



*Place collectors to avoid obscuring significant features or adversely affecting the perception of the overall character of the property.*

✓ **Appropriate**



*Attach solar collectors to a historic roof in a minimally invasive and reversible manner. In this example the panels are mounted such that the original shingles are saved.*

✓ **Appropriate**



*This home uses two appropriate locations for solar collectors, on the roof of a new secondary structure, and on the rear portions of the roof on the primary structure.*

**4.3.15 Use the least invasive method feasible to attach solar collectors to a historic roof.**

**Appropriate:**

- a. Install a collector in such a way that it can be removed and the original character easily restored.

**Not Appropriate:**

- b. Collectors which cause damage to significant features.
- c. Collector arrays which threaten the structural integrity of the building.

**4.3.16 Consider using building-integrated photovoltaic technology where the use of new building material is appropriate.**

**Appropriate:**

- a. Install integrated photovoltaic systems where they will not hinder the ability to interpret the historic significance of the structure. For example, installation of solar shingles on a rear or secondary roof facade where the original roof material is missing or significantly damaged would be appropriate.
- b. Design building integrated photovoltaic systems to visually blend with the historic structures such that they remain subordinate in character to primary building materials.

## Solutions for Wind Power

Small-scale wind generators can provide supplementary energy in many areas of Boise. The siting of wind turbine equipment should take advantage of visual screening provided by vegetation, mature trees and existing buildings. Minimizing impacts to the historic character of a building as well as to the historic neighborhood should be the primary consideration.

### 4.3.17 Minimize the visual impacts of a wind turbine from primary public view locations.

- a. Design the scale and location of the turbine to remain subordinate to the historic structure.
- b. Turbines should not obscure significant features or impair the ability to interpret the building's historic significance.

#### Appropriate:

- c. First, consider placing a freestanding turbine in a rear or side yard.
- d. Locate a turbine to minimize its visibility from the street while allowing access to breezes.
- e. The turbine and any exposed hardware should have a matte finish, and be consistent with the color scheme of the structure.

#### Acceptable:

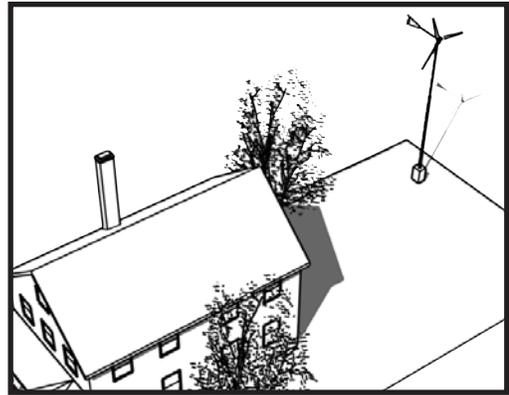
- f. If a freestanding turbine is not feasible, then consider mounting one on a structure.
- g. Locating a turbine on an accessory structure is preferred. Where this is not feasible, it is acceptable to locate a turbine on the primary structure.
- h. Set a turbine back from the primary facade.

#### Not Appropriate:

- i. A turbine mounted on the primary facade of the historic structure.



### Appropriate



*Design the scale and location of a turbine to remain subordinate to the historic structure.*



### Appropriate



*This turbine is scaled and located to remain visually subordinate to the historic home and is minimally visible from the street.*

### 4.3.18 Install turbines in such a way that can be readily removed.

#### Appropriate:

- a. Attach turbines in a manner that avoids damage to significant features.
- b. The original condition of the building should be easily restored.

#### Not Appropriate:

- c. Attached turbines which threaten the structural integrity of the building.



## Appropriate



*Masonry such as stone and brick can be used as efficient materials in thermal mass systems*

## Thermal Mass Systems

Thermal mass systems capture and retain heat from the sun in the mass of a building wall during the day, which will reradiate that heat into the home during the night, thereby minimizing indoor temperature swings. For historic buildings, these are difficult to construct as a part of the existing building without significantly changing their character. However, they can be successful in an addition when the exterior portion of the wall is designed to remain in character with the historic structure.

### 4.3.19 Design a thermal mass system to be in character with the historic building.

#### Appropriate:

- a. Use finish materials similar to the primary structure.
- b. Maintain a traditional window to wall ratio when using a thermal wall.

#### Not Appropriate:

- c. A new thermal mass system on a primary structure where it causes alteration to the historic character of the building or removal of its character-defining features.

## Chapter 5: New Construction for Primary Buildings

New construction in Boise Historic Districts is allowed, as long as the design, siting, and construction are **congruous** with the character of the district. It is preferable to design congruous contemporary structures rather than duplicate or mimic the design of historic buildings in the district. Compatibility derives directly from an evaluation of both the building and its siting. Siting is critical due to various lot configurations and in considering the overall appearance within the context of neighboring buildings set within the immediate block. Because with rare exception lot size, lot coverage, and building placement vary tremendously within Boise historic districts, siting decisions are expected to relate to the immediate context of the site and the block.

Important design considerations for new buildings include height, massing, scale, form, texture, lot coverage, setbacks, spacing of buildings, orientation, and alignment. Congruousness of proposed foundations, porches, landscaping, utility systems, and other site features are also important. Best practices in sustainability should also be applied in the design of a new primary structure.

The general design guidelines covered in this chapter are in addition to those found in the specific district guidelines in Chapter 2 and must be followed by applicants for new construction projects.

Within each section of this chapter guidelines are first provided which ensure compatibility with the historic context. Following these are guidelines which relate to sustainability best practices for compatible new construction. Both sets of guidelines apply to new construction of primary structures. The guidelines for sustainability also apply to new secondary structures.

### Sustainable Solutions for New Construction

Designing a new structure in a historic context should include an evaluation of the local climate and physical assets of the site as well as an analysis of how to maximize energy efficiency and conservation in the building. This will help place green building strategies into perspective in terms of considering the best approach in a historic context. The overall design of a new structure should maximize its green potential while remaining in character with the historic district.

In terms of designing for sustainability in new construction, many systems used are not visible on a building's exterior, but others will be apparent. The primary goal for new construction should be to maintain compatibility with the historic context while maximizing strategies for sustainable development.

Note that this section provides some general guidance on planning for a sustainable house, but it is not extensive. This material helps place sustainable design in a historic context into perspective.

- Many books and online services provide more detail, and users should refer to those sources for a more comprehensive understanding of the range of sustainable design approaches currently in practice.
- See City Staff for suggestions.

# Overall Strategy for Sustainable New Construction

When planning a new building in a historic context, follow these steps:

## Step 1: Understand historic neighborhood character

Careful consideration should be given to balancing sustainable design principles with those related to maintaining the traditional character of the area. It is important to understand what makes up the character of the neighborhood and to maintain compatibility in the scale, placement and design of a new building. When considering a new construction project, first design the building to be compatible with the historic context, then maximize its sustainable design qualities.

## Step 2: Research local climate

Consider how predominant wind and solar patterns can be used to advantage. Many historic designs in the area may also have made use of these features and should be analyzed as well.

## Step 3: Identify site features which support sustainability

Trees create summer shading, purify the air and help minimize urban heat island effects. Mature root systems promote water retention and soil quality. Many landscapes also provide local food production. Identify existing landscape features that provide sustainability benefits, particularly those of historic significance, and design a new project to take advantage of these features.

## Step 4: Maximize passive systems for interior climate control

Use passive strategies to minimize energy demand and the need for mechanical and electrical systems, especially those strategies that have been used historically in the neighborhood. Design a building to utilize natural daylighting, passive solar heating, cross-ventilation and other passive climate control techniques.

## Step 5: Use landscape improvements to enhance sustainability

Plan new landscape features to provide benefits such as summer shading and ventilation and winter solar access and wind protection. (See section 3.3.4 for sustainable landscape design guidelines.)

## Step 6: Select green building materials

Maintain compatibility with the historic context while maximizing use of products which have minimal environmental footprints. Use green materials and those which improve environmental performance that have been proven effective in the local climate.

## Step 7: Plan energy generating technology to be compatible with the context

Use of energy-generating technologies should be the final step considered, after strategies for making best use of passive systems are defined. Energy generation is the most changeable component of green building design, as technologies continue to evolve. More recent materials and products, for example, are less obtrusive in their appearance in terms of visual impacts in historic districts, and future ones may be even more so.

## 5.1 New Building Designs in Historic Districts

### Contribution to District Sustainability

---

Each new building should help to reinforce the social fabric of the neighborhood by conveying a sense of connection with it. The design also should contribute to the inherent, pedestrian-friendly environment of Boise's historic residential districts, as this encourages pedestrian and bicycle activity as alternatives to automobiles. A new infill project also can contribute to the street's tree canopy, thereby enhancing air quality and minimizing water run-off.

#### 5.1.1 Design a new building to support sustainability of the historic district as a whole.

**Appropriate:**

- a. Maintain a pedestrian-friendly street edge on the site. Keeping the new building in scale, orienting entrances to the street, and incorporating porches are examples.

### Environmental Impacts to Neighbors

---

A design should take into account the potential effect on an adjoining property, in terms of its solar access and ability to implement environmental design principles.

#### 5.1.2 Minimize solar access impacts on neighboring properties.

**Appropriate:**

- a. Maintain solar access for neighboring landscapes and garden areas to the extent feasible.

**Not Appropriate:**

- b. Casting substantial shadows on the south facing facade of an adjoining property.



### Appropriate

---



*A porch contributes to a pedestrian friendly environment and also provides shade.*

## 5.2 Height-Width Ratio

**Policy:** The scaling relationship between height and width should have similar proportions to neighboring buildings.

The height-width ratio is the relationship between the height and width of the front façade (in the case of corner lots, two façades including porches, wings, and other relevant features). The ratio should be of similar proportions to the neighboring buildings.

A similarity in building height and width is an important feature to maintain throughout the district. The alignment of such features contributes to an overall sense of visual continuity along the street. New buildings should not overwhelm neighboring structures in height and should remain within a similar range found within the vicinity of neighboring properties. Similarities in heights among building features such as porches are equally important.

### It is Generally Appropriate to:

- 5.2.1. Add a new building on a site that is similar in height and width to buildings on adjacent sites and block (see [Figure 5.2.1](#)).
- 5.2.2. Integrate a new building wider than the buildings on adjacent sites by breaking the building mass or dividing the mass of the building width in appearance to conform to building widths on neighboring properties.
- 5.2.3. Add a new building which is wider and higher than buildings on adjacent sites if the new building is broken up into smaller segments that are more similar to adjacent buildings; and if the height of the building at the street façade and at the sides facing adjacent sites is similar to the height of buildings on those sites. This is achieved by placing the taller masses away from the street and adjacent buildings to either side.

- 5.2.4. Design and construct a foundation height similar in proportion and appearance to neighboring buildings.

### It is Generally Not Appropriate to:

- 5.2.5. Add a new building to a site, which does not maintain or blend with the heights of buildings on adjacent sites (see [Figure 5.2.2 \(A\)](#) and [Figure 5.2.3](#)).
- 5.2.6. Add a new building to a site, which does not maintain or suggest the widths of buildings on adjacent sites (see [Figure 5.2.2 \(B\)](#) and [Figure 5.2.3](#)).

✓ **Appropriate**

---

**Figure 5.2.1**

Appropriate height and width that is consistent to neighboring buildings.



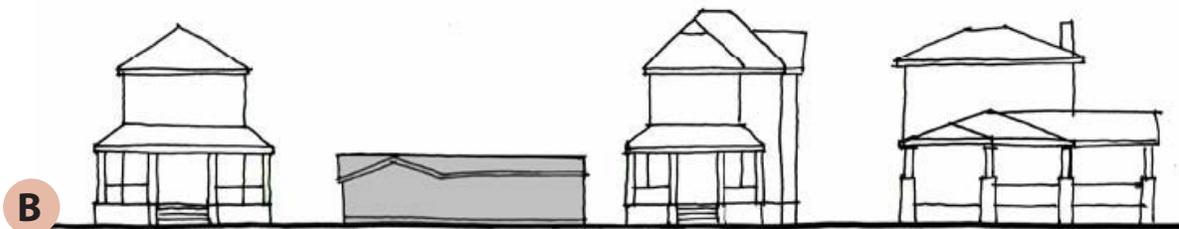
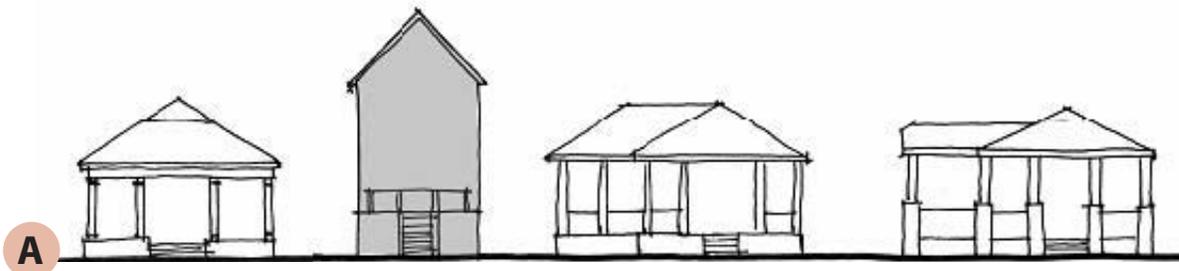
✗ **Not Appropriate**

---

**Figure 5.2.2**

Two examples of height-width ratios that are inappropriate;

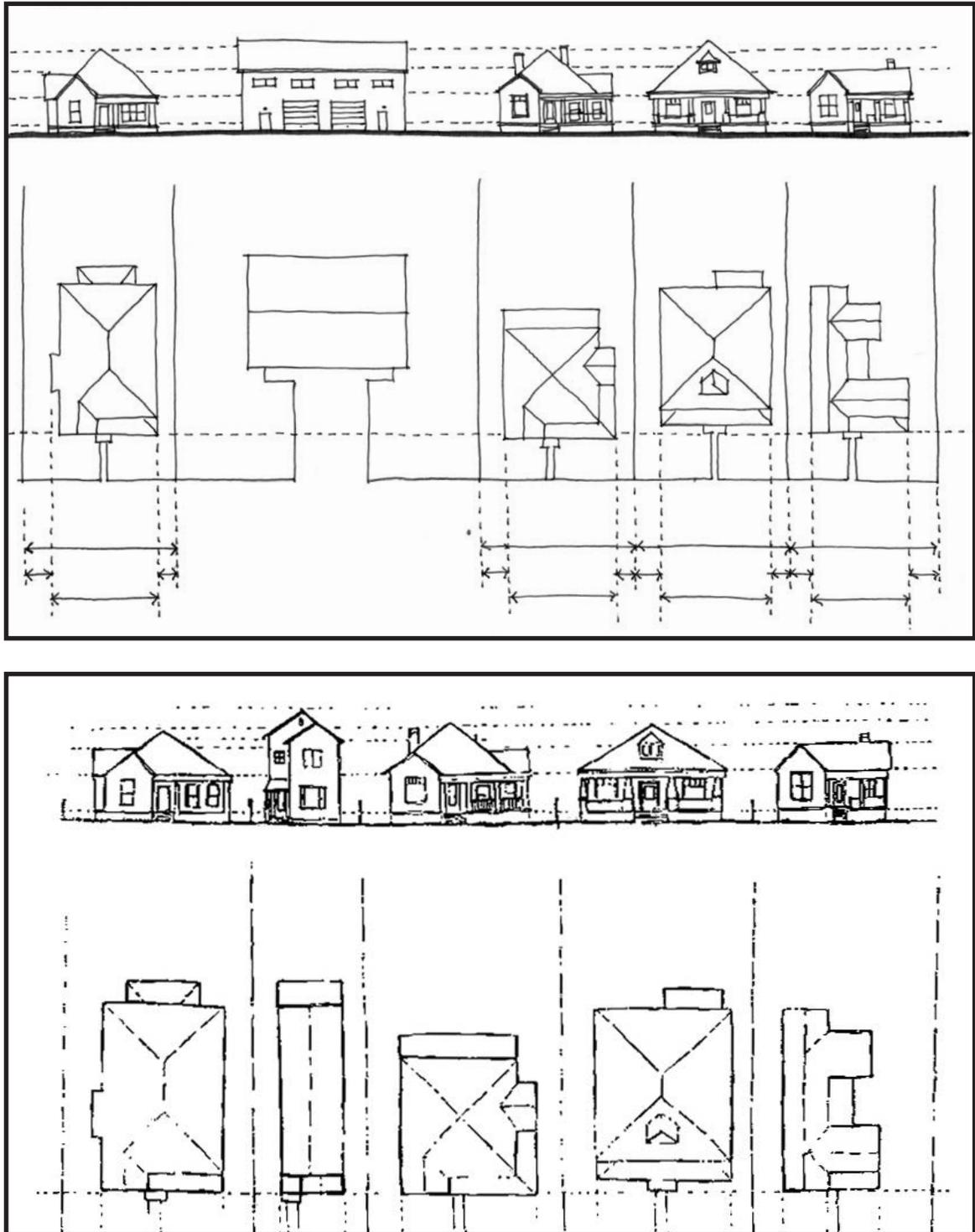
- A. Inappropriate: too narrow and tall; and
- B. Inappropriate: too low and wide.



## ✘ Not Appropriate

**Figure 5.2.3**

In considering plan and elevation together, inappropriate new construction along an existing street-scape showing differences with respect to width-height ratio, foundation height, set-back, building mass and form, solid-to-void ratio, roof form compared to that of the existing buildings.



## 5.3 Mass and Form

**Policy:** Massing and form of new construction should be similar to the block face and preserve the congruity of the block face as it was developed during the period of significance.

Consistent massing allows for new buildings to be congruous with existing buildings and within context of the district. Massing is defined as “the three-dimensional geometric composition of a building” or the overall “bulk” of a building. Similarity in building and roof form promotes a sense of visual continuity. For example, simple rectangular solids are typically appropriate.

### It is Generally Appropriate to:

- 5.3.1 Design a new building to reinforce a pedestrian-friendly character from the front elevation. Maintain the similarity of building, roof form, and front porches, traditionally found on the block when appropriate.
- 5.3.2 Use massing and form similar to neighboring buildings in new construction. Design a new building to convey a human scale through the use of traditional mass, sizes, materials, and window openings (see [Figure 5.3.1](#)).
- 5.3.3 Use design elements such as roof forms, lines, openings, and other characteristics commonly found in the district.
- 5.3.4 Have a building form which is unique in the district but relates to the neighboring buildings and to the neighborhood through its overall massing.

### It is Inappropriate to:

- 5.3.5 Use massing and building forms which are completely foreign to the historic district (see [Figure 5.3.2](#) and [Figure 5.4.1](#)).



## Appropriate

**Figure 5.3.1**

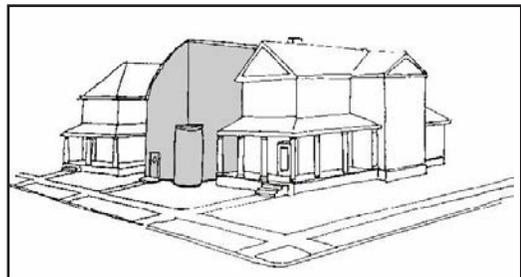
Appropriate massing and form of the shaded building reflects that of its neighbors without replication.



## Not Appropriate

**Figure 5.3.2**

Massing and form of the shaded building is disproportionate from its neighbors.



## Sustainability in Building Mass and Form

Building massing is a key consideration when sensitively designing for sustainability in a historic context. The mass of a building, including its overall size and shape, will influence both its compatibility with the historic context as well as its ability to utilize energy saving and generating design strategies. The overall mass of a new building should be compatible with the character of the district while utilizing best practices in sustainable design.

### 5.3.6 Design a building's massing to utilize strategies for natural daylighting, passive solar heating, cross-ventilation and other passive climate control techniques.

#### Appropriate:

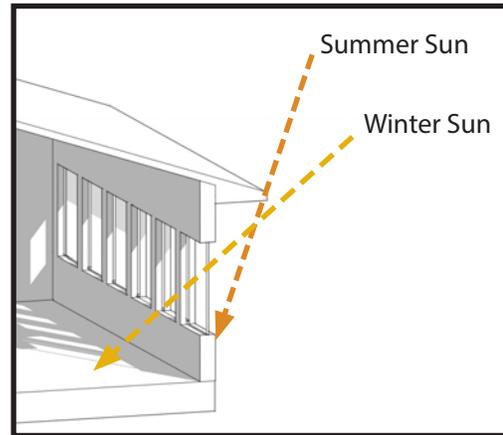
- a. Arrange building massing to maximize direct solar gain in winter months.
- b. Design building massing to maximize potential for solar energy collection devices.
- c. Arrange massing to allow for predominate summer breezes to pass through a building.

#### Not Appropriate:

- d. Massing designs which significantly detract from the ability to perceive the historic character of the district.
- e. Massing designs which significantly reduce the ability of a neighboring site to implement sustainable strategies, such as through excessive shading etc.



### Appropriate



*Design a building mass to utilize strategies for natural daylighting, passive solar heating, cross-ventilation and other passive climate control techniques.*

*In this example the roof form is designed to block solar gain in summer months, and allow for solar gain in winter months.*

## 5.4 Orientation and Lot Coverage

**Policy:** New buildings should be oriented parallel to the street and provide visual continuity with proportional lot coverage similar to other buildings on the same block.

The principal facades of new buildings within the district should be oriented to the street. Main entryways should be located along these principal facades. This is a consistent pattern throughout the district which should be preserved to maintain the prevailing visual continuity. When this pattern of primary facades and entryways is moved from the street side of the building, the activity along the street is lost and the character of the district changes.

General proportions of buildings-to-lot areas should remain consistent with their historic appearance. **Lot coverage** should be similar in proportion to the lot coverage of neighboring lots. Side and rear setbacks, as governed by zoning regulations, limit the minimum spacing between buildings; however, the overall proportions of building-to-lot area should remain consistent from lot to lot along the block.

### It is Generally Appropriate to:

- 5.4.1 Orient the primary façade of a new building parallel to the street (see [Figure 5.4.1](#)).
- 5.4.2 Provide primary entrances on the street façade (see [Figure 5.4.1](#)).
- 5.4.3 Enhance the primary entrance through steps, functional porches, stoops, porticos or other design features appropriate to the architectural style of the building.
- 5.4.4 Maintain proportional lot coverage as found on the neighboring properties of the same block; maximum lot coverage of all buildings should not exceed 30% of the total lot area; minimum **open space** should be 40% of the total lot area (see [Figure 5.4.2](#)). Any exceptions to these percentages will be closely scrutinized.

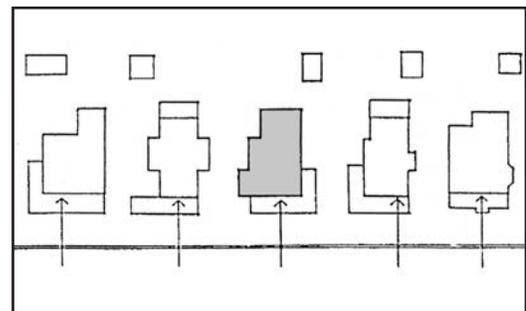


## Appropriate

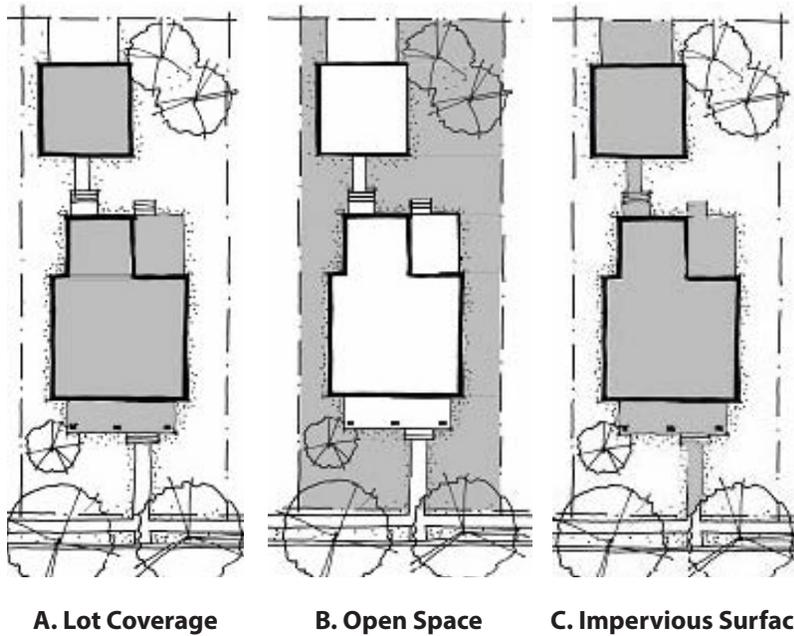
**Figure 5.4.1**

Appropriate orientation of the front elevation with the street and proportional lot coverage consistent with neighboring properties.

Note, there are no garages facing the front elevation or in view of the public right-of-way.



- 5.4.5 Subordinate the accessory dwelling unit, accessory building, or garage to the primary residential building on the site by placing the structure to the rear of the lot (see [Figure 6.1.1](#)). Otherwise, consider locating the accessory building, dwelling unit, or garage to the side as long as it is set back substantially (see [Figure 5.4.1](#)).

**Figure 5.4.2**

In determining appropriate and proportional lot coverage as found on the neighboring properties, three factors must be considered in total for a project, the relationship among the shaded areas of each illustration, (a) lot coverage, (b) open space, and (c) impervious surface.

Use the following equations and definitions to determine lot coverage and open space.

$$\text{Lot coverage} = \frac{\text{building area}}{\text{total lot area}}$$

$$\text{Open space} = \frac{\text{open space area}}{\text{total lot area}}$$

### Figure 5.4.2. Definitions

- **Lot Coverage** percentage means the area of a lot that is covered by buildings and structures divided by the total lot area, excluding those items listed as open space and allowable projections such as decks, eave overhangs, or bay windows.
- **Open Space** percentage means the total area of open space and allowable projections such as eave overhangs divided by the total area of a lot in which the open space is located, excluding any buildings, structures, or impervious surface.
- **Impervious Surface** means any material which prevents the infiltration of surface water, such as concrete, pavement, blacktop, asphalt, brick, stone, or similar material, but excluding sidewalks three (3) feet or less in width.

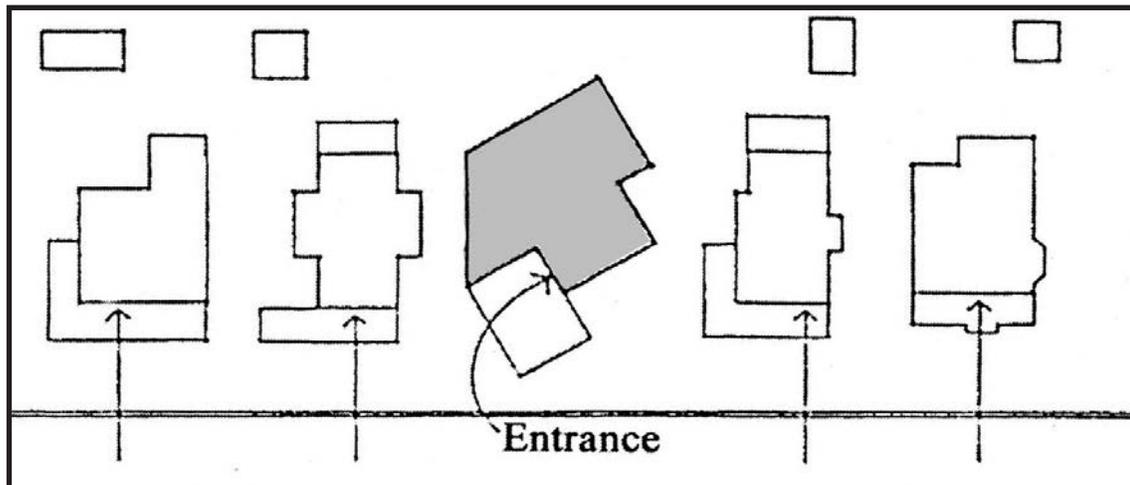
### It is Generally Not Appropriate to:

- 5.4.6 Orient the primary façade of a building other than parallel to the street (see [Figure 5.4.3](#)).
- 5.4.7 Orient primary entrances on non-street facades (see [Figure 5.4.3](#)).
- 5.4.8 Design and construct a garage(s) as part of the primary building. Primary buildings should not have garages that access from the front elevation or public right-of-way.
- 5.4.9 Develop a building, which does not maintain or suggest building-to-lot proportions of adjacent sites.

## ✘ Not Appropriate

**Figure 5.4.3**

Inappropriate orientation creating a break in the rhythm of the block and building covers a disproportionate amount of the lot. Note, the garage is adjacent to the front entrance, which is also inappropriate on the front elevation.



### Sustainability in Building Placement & Orientation

When placing a new building on a site, careful consideration should first be given to relating the building to the historic context, then to maximizing the potential for environmental benefits. See the previous guidelines to ensure building siting is compatible with its historic context. Note that there may be historically significant elements of the landscape, such as mature trees, that should be retained and incorporated in these siting strategies.

#### 5.4.10 Locate a new building to take advantage of microclimatic opportunities for energy conservation.

##### Appropriate:

- a. Orient a building to maximize the potential for natural daylighting as well as solar energy collection.

- b. Consider predominant wind patterns for cross-ventilation when positioning a new building on its site.
- c. Also position it to take advantage of the shade and wind break effects of existing trees.

##### Acceptable

- d. Orienting a subordinate, secondary building mass for solar access where the primary building mass cannot be. For example, where maintaining compatibility with the district and aligning to the street requires a non-optimal solar orientation for the primary building mass.

##### Not Appropriate:

- e. A primary building orientation which does not maintain compatibility with contributing structures within the historic context.

## 5.5 Alignment, Rhythm, and Spacing

**Policy:** Proportions of the facades and the spacing of the buildings should be consistent along the street of the district.

Along a block, the uniformity of the proportions of the facades and the spacing of the buildings must be considered in new construction to achieve harmony along the streetscape. Spacing between buildings should be consistent along the street in order to maintain the rhythm that is traditionally prevalent on the street in the district.

Houses built up until the mid-1930s tend to have substantial front porches, and often rear or side porches as well. Porches, projecting bays, balconies, and other facade elements should be aligned with those of existing buildings along the street. This alignment creates harmony and maintains the rhythm of facade proportions along the block length. Front widths of new buildings should correspond with existing building widths; however, a wider facade can be broken into separate elements that suggest front widths similar to those of neighboring buildings.

Where lots are combined to create a larger development, the building-to-lot proportions should visually suggest a relationship with adjacent buildings by breaking large building masses into smaller elements. Where a building site is comprised of multiple lots, the new building should be clearly of similar proportion to other buildings on the same block.

### It is Generally Appropriate to:

- 5.5.1 Align the facade of a new building with the facades of existing buildings on adjacent sites (see [Figure 5.5.1](#)).
- 5.5.2 Construct new buildings with similar spacing relative to other buildings along that street (see [Figure 5.5.2](#)).

- 5.5.3 Allow the construction of a new building larger than the buildings on adjacent sites by dividing up the wide facade to suggest smaller building masses.
- 5.5.4 Orient the main entrance to a building parallel to the primary street (see [Figure 5.5.1](#)).
- 5.5.5 Provide an entrance that uses elements of a porch to create a transition from outside to inside.
- 5.5.6 Design a porch or entrance with modern details similar to the details present on other porches in that district.

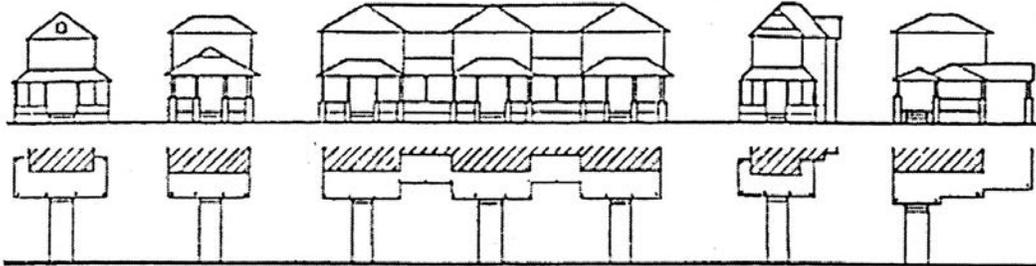
### It is Generally Not Appropriate to:

- 5.5.7 Add a building to a site, which does not maintain, or suggest the spacing of buildings on adjacent sites within the block (see [Figure 5.1.3](#)).
- 5.5.8 Place the primary facade of a new building out of alignment or rhythm with the existing building on surrounding sites (see [Figure 5.5.2](#)).
- 5.5.9 Design and construct a foundation height that is not proportional to neighboring buildings.
- 5.5.10 Place the main entrance on the side or rear of a new building.
- 5.5.11 Design an entrance that is simply a door, and provides little or no transition from outside to inside.
- 5.5.12 Design an at-grade entrance, as virtually all existing homes with historic significance provide a “stepping up” to the front entrance (see [Figure 5.5.3](#)).

**✓ Appropriate**

**Figure 5.5.1**

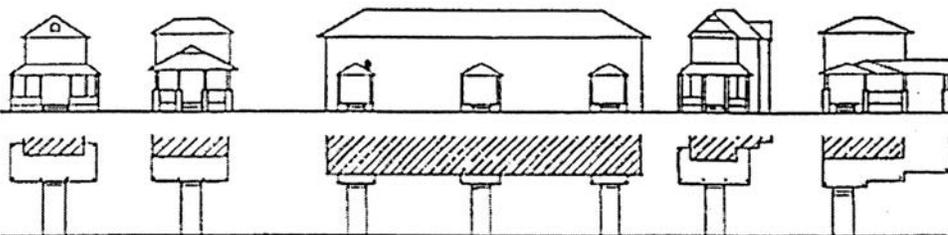
The new multi-family building in shading is appropriate since it is shaped and sited to reflect the rhythm and alignment of the street.



**✗ Not Appropriate**

**Figure 5.5.2**

The new multi-family building example is massive, breaking the rhythm and alignment of other buildings on the street.

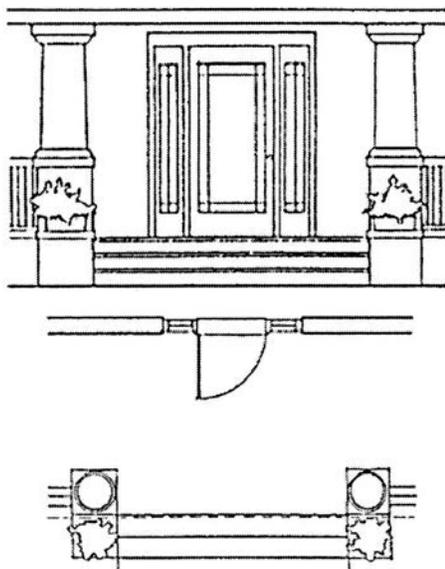


**▶ Front Entrances**

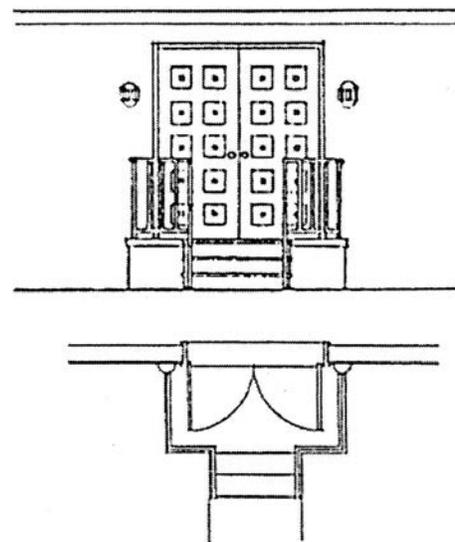
**Figure 5.5.3**

The appropriate and inappropriate scale and details of front entrances for new construction.

**✓ Appropriate scale and details.**



**✗ Inappropriate stock double doors and narrow stoop.**



## 5.6 Setback

**Policy:** Maintain the prevailing, existing setbacks from the street within a block for the porch and main building.

“Minimum” setbacks are described in Boise’s Zoning Ordinance. Setbacks that are greater than the zoning code minimums may be appropriate alterations, additions or new construction, in order that they do not become incongruous with the site, block, or district.

New construction should respect the established setbacks and existing character of the façades within a block. Maintaining uniform setbacks of the porch and main building promotes the congruousness of the new building with the district. On the other hand, respecting the alignment of rear additions may be less critical if it does not significantly erode the open space to built space ratio and is not visible from primary elevation.

### It is Generally Appropriate to:

- 5.6.1 Keep the visual mass of the building at or near the same setback as buildings on adjacent sites (see [Figure 5.6.1](#)).
- 5.6.2 Maintain the spacing of side yards and fit a new building within the range of yard dimensions seen within the block.
- 5.6.3 Keep wings, porches, and second-ary structural elements at similar setbacks to those on neighboring buildings.

### It is Generally Not Appropriate to:

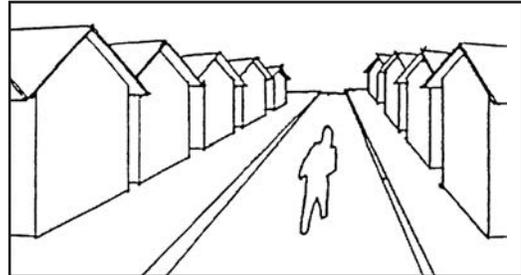
- 5.6.4 Place a building on a site in a location that is greatly different from the location of buildings on adjacent sites (see [Figure 5.6.2](#) and [Figure 5.6.3](#) and [Figure 5.2.3](#)).



## Appropriate

**Figure 5.6.1**

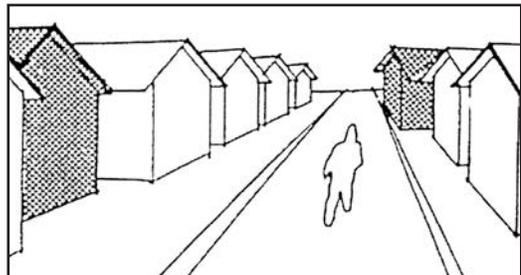
Uniform setbacks and building spacing should be maintained in new construction.



## Not Appropriate

**Figure 5.6.2**

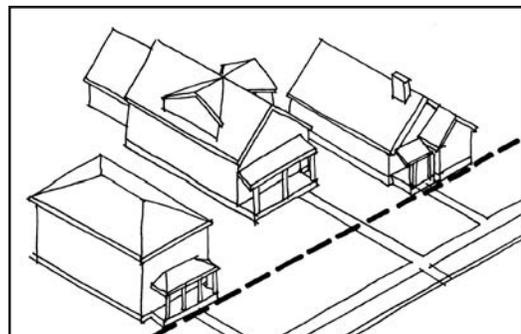
New construction of inappropriate setback from the street and public right-of-way.



## Not Appropriate

**Figure 5.6.3**

The setback of the new building in the middle is not appropriate.



## 5.7 Materials

**Policy:** Use similar building materials as those found within the district.

Prevalent styles found within the districts use a variety of common building materials. Clapboard or shiplap wood siding (two to six inches wide), brick, stucco and sandstone are dominant exterior materials. Sandstone blocks are generally relied upon for foundations. Stucco, rusticated concrete block, and stone were sometimes used solely as wall material or for ornamentations.

In new construction, the use of the historic building materials is favored. Several common materials to choose from include wood siding, composite wood-resin, fiber cement siding, among others (Figure 5.7.1). New vinyl or aluminum siding is generally inappropriate but will be closely scrutinized for appropriateness on the site. These types of sidings are prone to hide decay and other problems underneath, leading to significant long term damage. In addition, prefabricated window and door trim used with vinyl and aluminum siding is often narrower than appropriate.

### It is Generally Appropriate to:

- 5.7.1 Use exterior wall materials that are commonly present in the district.
- 5.7.2 Ensure that the predominant texture of the new building is consistent with the texture of historic materials in the district (see [Figure 5.7.1](#)).
- 5.7.3 Use wood or painted, composite wood-resin, or fiber cement siding as building material in new construction.

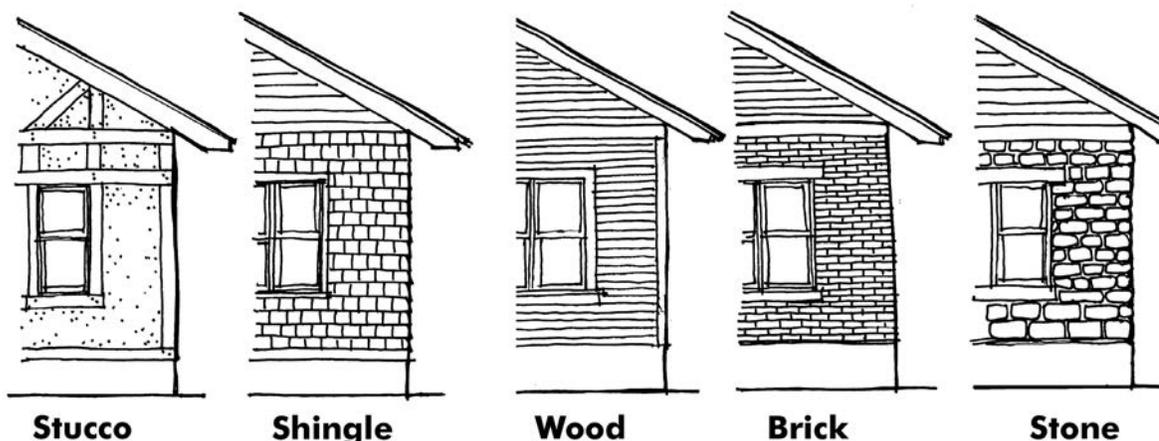
### It is Generally Not Appropriate to:

- 5.7.4 Use faux wood graining in composite or artificial materials used to simulate wood siding. Choose a smooth surface.
- 5.7.5 Use prefabricated or metal buildings.
- 5.7.6 Use vinyl and aluminum materials on new buildings.
- 5.7.7 Use Exterior Insulation and Finish System (E.I.F.S.).

## ✓ Appropriate

**Figure 5.7.1**

Examples of common exterior building materials appropriate for the district.



## Green Building Materials

Maintain compatibility with the historic context while using products which have minimal environmental footprints. Use green materials and those which improve environmental performance that have been proven effective in the local climate.

### 5.7.8 Use green building materials that are compatible with the historic context.

#### Appropriate:

- a. Use materials that appear similar in scale, texture and finish to those employed historically. Smooth fiber cement board and wood lap siding are examples.

#### Appropriate materials are:

- b. Locally manufactured.
- c. Easy to maintain.
- d. Proven to be durable in the Boise climate.
- e. Have long life spans.
- f. Recyclable.
- g. Made from recycled or repurposed materials.
- h. Not manufactured using harsh chemicals.
- i. Do not off-gas harsh chemicals.
- j. Will not interact negatively with historic building materials.

#### Not Appropriate:

- k. Avoid using synthetic materials which are not proven to be durable, are difficult to repair and recycle or that employ harsh manufacturing methods.
- l. Avoid using materials that are out of scale with those seen historically, or that have a finish which is out of character.



## Appropriate



*Use green building materials that are compatible with the historic context.*

## 5.8 Windows, Doors, and Facade Treatment

**Policy:** Maintain similar **solid-to-void** ratios of a new building to those of buildings on adjacent sites within the block with overall proportions of windows, doors, and front facades.

The front facades of buildings within the district vary in style and detail. However, certain proportional relationships exist among buildings in the immediate setting. The importance of the relationship between the width and height of the front elevation of buildings on the block has already been discussed. Beyond that, the proportion of openings on the street-side facade, or more specifically, the relationship of width to height of windows and doors and their placement along the facade, should reflect the same relationships along the street.

Driving or walking down a street in the district, a pattern of window and door openings becomes evident along the block. This rhythm of solids to voids, walls to windows, and juxtaposition of stronger and less dominant elements should be reflected in the facade of a new building. Windows give scale to buildings and visual attention to the composition of individual facades. Many historic building styles have distinctive window designs. Historic windows are generally inset into relatively deep openings or surrounded by casings and sash components that cast shadows and provide depth and relief. Windows in new construction should have similar characteristics.

Windows are an important design element as they are able to establish the scale and character of the building. Windows and window patterns in new construction should be of similar proportion and size to the windows of the other buildings within the neighborhood. For the majority of neighborhoods developed prior to the 1940s, the rule of thumb for windows is generally vertical, double-hung or casement, and wood-framed. When placed in pairs or in groups of three, as many Craftsman houses, these create a horizontal impression. Historic architecture styles display a thoughtful use of natural lighting, often with numerous and well-placed arrangement of windows.

Doors are also important character-defining features of buildings throughout the district. Original doors on houses from historic styles are generally divided into wood panels and glass. Many doors also have glass side lights and transoms, especially along Harrison Boulevard and Warm Springs Avenue. New doors should reflect these patterns.

### It is Generally Appropriate to:

- 5.8.1 Use double or single-hung sash windows. Provide windows of over-all proportions similar those used on buildings on surrounding sites within the block.
- 5.8.2 Use a ratio of wall-to-window or **solid-to-void** that is similar to that found on other historic buildings within the block and found through-out the district. Provide a pattern of windows and doors on a new building facade, which recalls similar patterns on facades of other buildings in that given district (see [Figure 5.8.1](#)).
- 5.8.3 Design the window and door cases with depth and visual relief. New windows should be installed with a sill depth matching the existing (2-3 inches)
- 5.8.4 Use wood or similar looking materials such as aluminum clad windows that provide depth and texture similar in appearance to historic wood windows on the primary facade. Other window materials can be considered on the secondary elevations of the new building. Use extruded window muntins matching those existing on an historic home.
- 5.8.5 Use removable storm windows that blend the texturing and match sash styles so they don't look obtrusive or out of place.
- 5.8.6 Provide doors of overall proportions similar to those used on buildings on adjacent sites.

5.8.7 Use screen doors that are simple in design and blend with the design of the inner door and the house.

5.8.10 Use window and door types in-congruous with the character of the district.

5.8.11 Use vinyl windows.

### It is Generally Not Appropriate to:

5.8.8 Erect a new building, which does not maintain the proportions or patterns of windows similar to those in the district (see [Figure 5.8.2](#)).

5.8.12 Use multiple window styles throughout a new building.

5.8.13 Use aluminum doors with mill, brush or polished finish or metal louvered doors.

5.8.9 Provide windows of overall proportions that are greatly different from windows on buildings on adjacent sites.

## ✓ Appropriate

**Figure 5.8.1**

Appropriate fenestration follows rhythm set by neighboring buildings. The windows are patterned after existing styles in the center house example.



## ✗ Not Appropriate

**Figure 5.8.2**

Inappropriate and awkward door and window spacing in the center house example. The same center house has more than one style of windows and both styles are out of character with neighboring properties.



## Sustainability in Windows

The design of windows and the manner in which they are arranged can help to manage environmental conditions and are often key factors in sustainable design. Configurations that are similar to those seen historically are encouraged. However, there may also be new configurations that will be effective in energy collection. These new arrangements can be more easily accommodated when visually subordinate, as seen from the street.

### 5.8.14 Arrange windows to be compatible with the historic context and maximize strategies for passive solar and daylighting.

#### Appropriate:

- Use window patterns that are similar in character to those seen historically.
- Design and place windows to maximize daylighting and light penetration to interior spaces.
- The use of true divided light windows is preferred.

#### Acceptable:

- Use of externally applied muntins to mimic divided lights where the profile depth is sufficient to appear similar to true divided lights.

#### Acceptable:

- Use larger areas of glass, or different shapes and proportions, when visually subordinate as seen from the street, such as on secondary and rear facades.

#### Not Appropriate:

- The sole use of spacers within a window pane, or internally applied muntins on a window, to mimic divided lights.
- Window systems such as Trombe and Nana walls which do not preserve the historic solid-to-void ratio.



## Appropriate



*Design eave depths and windows to provide for shade from the summer sun while allowing for penetration of winter sun.*

## Shade Devices

A range of shade devices may be employed in the interest of moderating climatic conditions. These include traditional awnings as well as overhanging eaves. With new infill, new interpretations may also be considered.

### 5.8.15 Use exterior shading devices that are compatible with the historic district to manage solar gain.

#### Appropriate:

- Use operable or fixed awnings to moderate climatic conditions.
- Use of roof overhangs to provide seasonal shading.
- New interpretations of traditional shading devices may also be considered.

## Thermal Mass Systems

Thermal mass systems capture and retain heat from the sun in the mass of a building wall during the day, and then radiate that heat into the home during the night, thereby minimizing indoor temperature swings. Such systems are appropriate when located and designed to have minimal visual impacts on the character of the district as viewed from the public right-of-way. Thermal mass systems in new construction should be designed to be visually integrated with the structure.

### 5.8.16 Design a new thermal mass system to be in character with the historic context.

#### Appropriate:

- a. Design a thermal mass system to appear integrated with the building facade.
- b. Design the exterior of the building to accommodate the mass without an obvious break in materials.
- c. Use finish materials in character with the historic context.
- d. Maintain a traditional window to wall ratio when using a thermal wall.
- e. Use on a secondary or rear wall is preferred.

#### Acceptable:

- f. Locating a thermal mass system on a primary facade when the mass is also the primary building material, such as with straw bale construction.

#### Not Appropriate:

- g. Placement of visually obtrusive systems on a primary facade.
- h. Thermal mass systems visible from the street which do not retain the traditional solid-to-void ratio of walls and windows.



### Appropriate



*Masonry such as stone and brick can be both compatible with the character of the historic district and used as efficient materials in thermal mass systems.*

## 5.9 Roof Forms & Material

**Policy:** Use similar roof forms, slope ratios, and materials drawn from historic structures in the district.

Roofs are major features of most historic buildings and when repeated along a street contribute toward a visual continuity. The architectural character of older buildings is generally expressed in roof forms and materials. Typical roofs in Boise's districts are simple in form with gabled, hipped, or occasionally a combination of the two. Roofs purposely extend beyond the building walls to protect the window and door openings and provide shade. These eaves are sometimes enclosed with wood soffits (the underside of a roof overhang) which are vented.

Various materials are used for the roofs of buildings throughout the district, but shingles of varying materials predominate. Some of the more common materials are wood shingle, clay tile, composition material such as asphalt or asbestos shingles, tin and slate. The design of roofs for new buildings should be congruous to the size, shape, slope, color, and texture of other roofs on the block.

### It is Generally Appropriate to:

- 5.9.1 Add a new building with a roof that relates to the overall size, shape, slope, color, and texture of roofs on adjacent sites or in other areas of the district. Special consideration should be given to front-facing facades.
- 5.9.2 Use materials on a new roof which are similar to materials found on roofs in the district.
- 5.9.3 Use gable and hipped roofs as primary roof forms and that protrude beyond the plane of the building walls.
- 5.9.4 Maintain roof forms similar to those seen traditionally on the block within pitches of 6:12 or greater. Use shed roofs for some porch additions.
- 5.9.5 Use decorative elements such as corner boards and brackets under the eaves to provide depth and relief.
- 5.9.6 Minimize the visual impact of skylights and other rooftop devices visible to the public; these should be located toward the rear of a house.

## ▶ Roof Forms

**Figure 5.9.1**

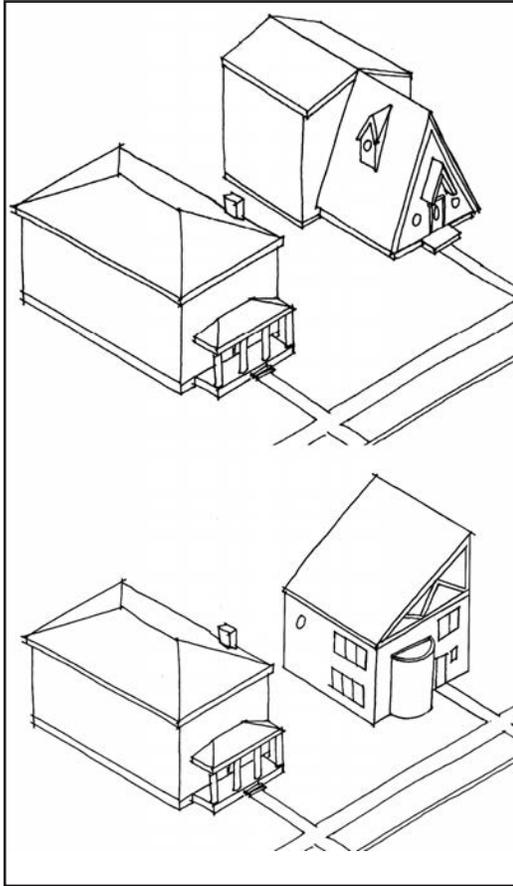
Two examples of typically inappropriate roof forms on the left and three appropriate roof forms on the right of the illustration.



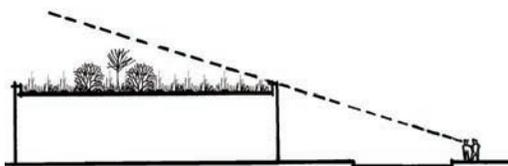
## ✘ Not Appropriate

**Figure 5.9.2**

Two inappropriate examples of non-traditional new building and roof forms to the right of the existing building, or those not found anywhere in the vicinity of the property or within the district.



## ✔ Appropriate



*Design a green roof to be out of view from the street.*

## It is Generally Not Appropriate to:

- 5.9.7 Use a roof of a size, shape, color, or slope not typically seen in the district (see [Figure 5.9.1](#)).
- 5.9.8 Use corrugated roof material.
- 5.9.9 Use “non-traditional” building and roof forms that detract from the visual continuity of the streetscape (see [Figure 5.9.2](#)).

## Green Roofs

A green roof provides thermal mass to help regulate internal temperatures and also helps to reduce the urban heat island effect. Typically, they are installed as part of a flat or low-pitched roof form. They may be considered for new construction where this building form is compatible with the historic context or on a secondary roof mass in other contexts. Overall, the visual impacts of a green roof on the character of the district should be minimized, but it is not the intent to completely hide it.

### 5.9.10 Limit the visual impact of a green roof on the character of the district.

#### Appropriate:

- a. Designing a green roof to be out of view from the street.
- b. Use a green roof where a flat or low-pitched roof form is compatible with the building types found in the neighborhood, or where the area will be on a subordinate wing of the house.
- c. Limit the height of the vegetation such that it does not overwhelm the character of the building.

#### Not Appropriate:

- d. Using tall plant materials that overwhelm the building.

## 5.10 Trim and Details

**Policy:** Exterior trim details on new construction should provide a visual link between the old and new buildings.

New construction should not necessarily identically copy every detail of a style or period of architecture found in the district; rather new construction should be congruous. Using similar forms such as those found in windows, doors, parapets, rooflines, and other façade elements without replicating them can help establish continuity and compatibility within the block and the district. The trim and detail of new building design offers a way to link to past while still acknowledging a clear differentiation in the present.

New details and trim should be well integrated into the design and used to accomplish functional as well as decorative purposes, such as: to express a change of plane; to finish what would otherwise be a ragged edge; to act as a transition between different materials; or even the simple function of shedding water. Detail should be functional with a high level of craftsmanship, rather than simply applied decoration.

### It is Generally Appropriate to:

- 5.10.1 Design a new building using similar forms to those present in the district.
- 5.10.2 Use details, which are functional and contain a high level of craftsmanship.
- 5.10.3 Align windowsills, moldings, and eave lines whenever possible with similar elements on adjacent buildings within the block.

### It is Generally Not Appropriate to:

- 5.10.4 Apply incongruous details from one style of architecture onto another style.
- 5.10.5 Use architectural details in ornamentation that confuse the history or style of a building. For example, do not use Victorian details on minimal traditional homes.

## 5.11 Utility Systems

**Policy:** Energy and water system improvements serving a greater efficiency are encouraged provided that they do not adversely impact the historic integrity of a building or the district by being generally placed out of view from the public way or street.

The more common utilities serving properties in the district are telephone and electrical lines, gas meters, air conditioners, and telecommunication systems. However, other systems are becoming more economic and accepted for use such as solar panel devices and rain water harvesting systems. See the following section for guidelines on energy generating equipment. For new construction, visual impacts associated with utility systems should be minimized. Special care should be taken early in the conceptual stages of design to minimize impacts.

### It is Generally Appropriate to:

- 5.11.1 Design systems that are unobtrusive and not in view of the public right-of-way.

### It is Generally Not Appropriate to:

- 5.11.3 Design and construct utility systems into the front elevation or roof line of the building.
- 5.11.5 Place a satellite dish in view of the public right-of-way.

## 5.12 Energy Generating Equipment

Maximize passive strategies to reduce energy demand prior to planning for on-site energy generation. When this is done, energy-producing devices, including solar and wind collectors, are encouraged where they minimize impacts to the character of the historic district. Consider the overall project goals and energy strategies when determining if a specific technology is appropriate for a project.

### 5.12.1 Locate energy collecting and generating devices to minimize impacts to the historic character of the district.

#### Appropriate:

- a. Locate a device where it will not visually intrude into the character of the district, as seen from the street.
- b. Use designs that are subdued in terms of profile, color and finish.

### Solutions for Solar Collectors

Solar collectors should be designed, sized and located to minimize their effect on the character of a historic district. Locating collectors in the rear of a lot, such as site collectors or on a secondary structure, is preferred. When this is not feasible, locating them on subordinate portions of the main building should be considered. Finally, there may be conditions in which collectors must be located in front. Where collectors are used on a primary facade, they should remain visually subordinate, and appear integrated into the walls or roof of the building.

### 5.12.2 Locate and design a solar collection system to avoid adverse impacts to the character of the district.

#### Appropriate:

- a. Design collectors to avoid detracting from the ability to perceive the historic character of the district.



#### Appropriate



*Locating solar collectors on a secondary structure is a preferred approach. In this case, solar collector panels are located on the roof of a new garage.*

- b. Locate a solar collector on a free-standing structure in a rear or side yard.
- c. Locate a collector on a secondary structure that is positioned to the side or rear of the main building.
- d. Locate a collector on the primary structure's roof, but to the rear where it is less visible from the street.

#### Acceptable:

- e. Place a collector on a primary facade or roof when it is not feasible to use one of the preferred locations and where it will not detract from the character of the district.
- f. When placed on a front, integrate the collector system with the facade and its character. For example, photovoltaic roof shingles may be acceptable on a primary roof, when the color and finish are relatively muted.

**Not Appropriate:**

- g. Locating a collector in a front yard when it will visually detract from the historic character of the district.
- h. Locating collectors on a front-facing roof plane when the array system contrasts strongly with the background roofing materials.

**5.12.3 Integrate a solar collector with the design of the new building.****Appropriate:**

- a. Size collector arrays to remain subordinate to the structure as viewed from the public way.
- b. Mount collectors flush below the ridgeline on a sloping roof. This will not cause a significant decrease in the device's solar gain capabilities.
- c. Exposed hardware, frames and piping should have a matte finish and be consistent with the color scheme of the structure.

**5.12.4 Consider using a building-integrated photovoltaic system.****Appropriate:**

- a. Building-integrated photovoltaics are appropriate where the materials used are in character with the building, have proven durability and their application does not detract from the ability to perceive the historic character of the district.

**Appropriate**

*Exposed hardware, frames and piping on solar arrays should have a matte finish and be consistent with the color scheme of the structure.*

## Solutions for Wind Power

Small-scale wind generators can provide supplementary energy supply. While they may have limited applications in the urbanized, residential neighborhoods of Boise, some opportunities do exist and this technology can fit into the city's historic districts when designed to be compatible. The siting of wind turbine equipment should take advantage of visual screening provided by mature vegetation and tree cover as well as existing buildings. Minimizing impacts to the historic character of the district should be the primary consideration.

### 5.12.5 Minimize the visual impacts of a wind turbine from primary public view locations.

#### Appropriate:

- a. The turbine design and placement should not impair the ability to perceive the district's historic character from the public right-of-way.
- b. The turbine and any exposed hardware should have a matte finish, and when mounted to a structure should be consistent with the color scheme of the building.
- c. First consider placing a freestanding turbine in a rear or side yard.
- d. Locate a free-standing turbine to minimize its visibility from the public-right-of-way, while still allowing for performance requirements.

#### Acceptable:

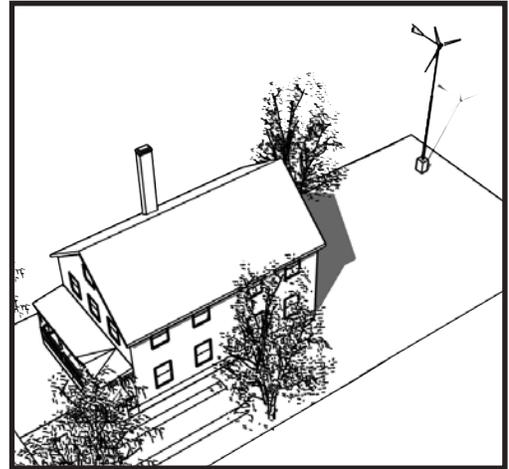
- e. If a free-standing turbine is not feasible, mounting one on a secondary structure is acceptable.
- f. If a location on a secondary structure is not feasible, then locating it on the primary structure, but in a visually subordinate location, may be considered.

#### Not Appropriate:

- g. A turbine mounted on the primary facade.



## Appropriate



*Locating detached turbines in the rear yard where they will be minimally visible is a preferred approach.*

## Chapter 6:

# Accessory Buildings, Accessory Dwelling Units, and Garages

Throughout Boise's history, many residences had associated outbuildings for specialized activities. Over time, the types of outbuildings have evolved as the needs of Americans kept pace with technological advances. Today, most of these surviving outbuildings function as garages and carports. Societal trends have seen garages grow from single bay to double and triple bay structures. Recent changes to the zoning code allow for a change in use, as well. Additional living space, either for the primary structure or as a guest house, is now allowed through the conversion or new construction of **accessory dwelling units**.

A detached accessory dwelling unit offers an excellent alternative for additional space to existing historic buildings in the district. Today, the affection many have for their automobiles also encourages the building of garages under these livable spaces. The most common approach for the design of accessory dwelling units is combining the two uses into one, two-story detached building. However, this common approach is not always ensured, careful evaluation is necessary. There is no "one size fits all" approach and requests must be considered on a case-by-case basis. The challenge: balance the desire for new buildings with that of the character of the district.

The following chapter provides guidelines for compatibility of a new accessory buildings, dwelling unit or garage. In addition, The sustainability guidelines in Chapter 5 apply to new accessory structures, dwelling units and garages, and the sustainability guidelines in Chapters 3 and 4 apply to historic accessory structures, dwelling units and garages.

## 6.1 Accessory Buildings, Accessory Dwelling Units, or Garages

**Policy:** Accessory buildings augment the livable space of the existing building and preserve the overall character of the district through a detached and secondary appearance and position.

The outbuildings of today include garages, accessory dwelling units, sheds, and carports. The siting and design of any new accessory dwelling unit requires careful evaluation of both specific site conditions and its relationship to the primary structure. This careful attention is necessary since there is such a wide range of accessory dwelling units found throughout the district. With variation comes realization that not all types are appropriate for all sites and the design solution must be tailored to the site.

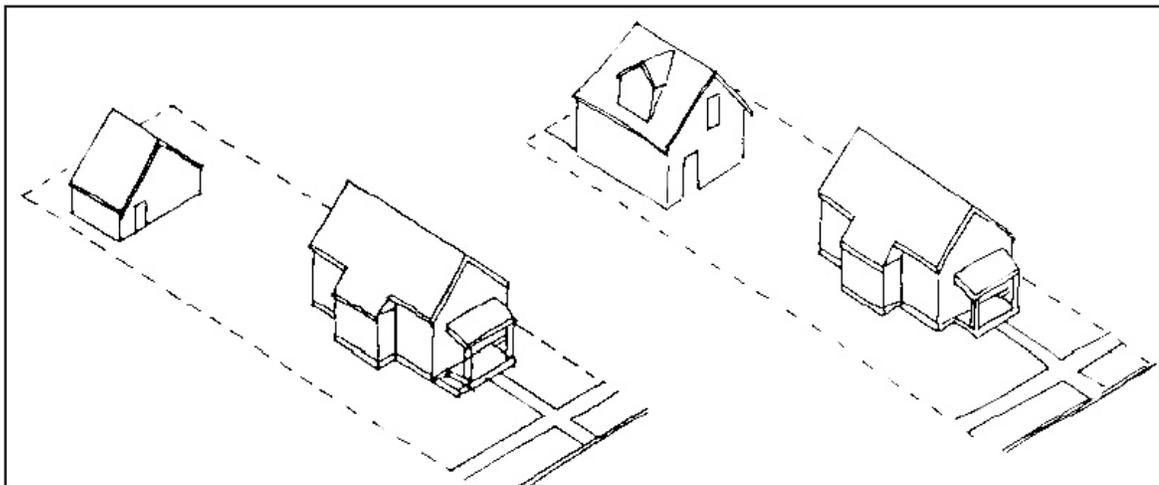
### It is Generally Appropriate to:

- 6.1.1 Use similar architectural characteristics as seen throughout the district. For example, a basic rectangular form with gable, hip, and shed roofs.
- 6.1.2 Maintain a proportional mass, size, and height to ensure the accessory building or dwelling unit is not taller than the primary building on the lot or does not occupy the entire back-yard (see [Figure 6.1.1](#)).
- 6.1.3 Subordinate the accessory dwelling unit, accessory building, or garage to the primary residential building on the site by placing the structure to the rear of the lot (see [Figure 6.1.1](#)). Otherwise, consider locating the accessory building, dwelling unit, or garage to the side as long as it is set back substantially.
- 6.1.4 Use the same roof form as the existing primary building.
- 6.1.5 Use similar materials used on the primary existing building.
- 6.1.6 Match rooflines; vary rooflines as long as the variation is not significant.
- 6.1.7 Design garages so they are alley loaded.
- 6.1.8 Maintain proportional lot coverage as found on the neighboring properties of the same block. Maximum lot coverage of all buildings should not exceed 30% of the total lot area. Minimum open space should be 40% of the total lot area (see [Figure 5.3.2](#)).

### Appropriate

**Figure 6.1.1**

Appropriate fenestration follows rhythm set by neighboring buildings. The windows are patterned after existing styles in the center house example.

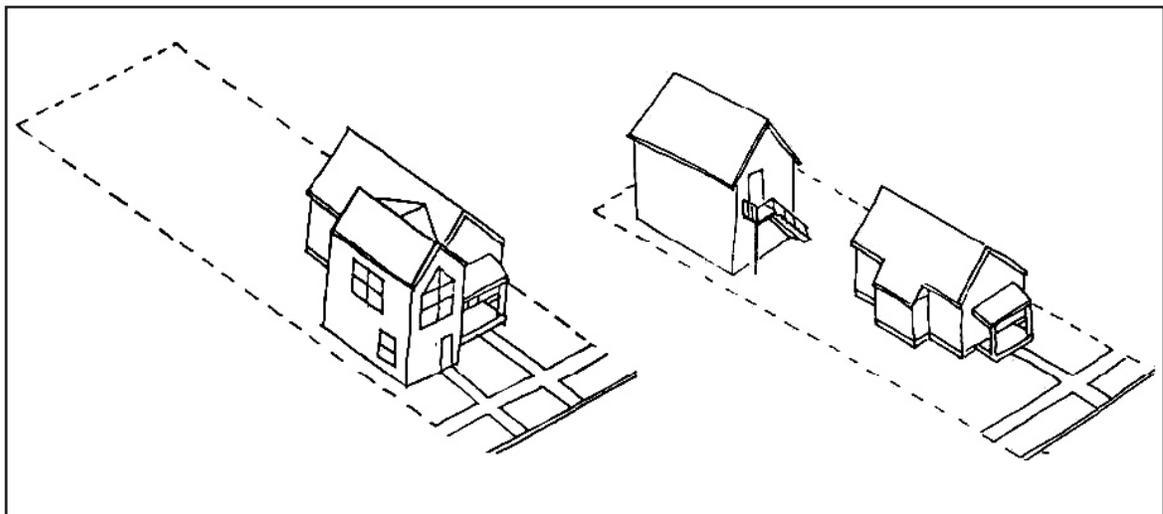


**It is Generally Not Appropriate to:**

- 6.1.9 Locate accessory dwelling units or garages so that they require the removal of a significant site feature or primary building element (see [Figure 6.1.2](#)).
- 6.1.10 Design the accessory dwelling unit or garage to visually compete with or overpower the primary building on the lot (see [Figure 6.1.2](#)).
- 6.1.11 Add an accessory dwelling unit to a site which does not maintain or blend with the heights of buildings on adjacent sites (see [Figure 6.1.2](#)).
- 6.1.12 Construct an accessory unit or garage that is larger than the existing primary building on the site (see [Figure 6.1.2](#)).
- 6.1.13 Mimic primary structures in terms of historic character or residential appearance.
- 6.1.14 Use materials traditionally not used in the district.
- 6.1.15 Use portable storage sheds unless they are completely out of view from the front public right-of-way or street.
- 6.1.16 Create new curb cuts to accommodate new driveways on the street.

**Not Appropriate****Figure 6.1.2**

An inappropriate example of an accessory building or garage.



## Chapter 7: Suggested Considerations

Applicants are encouraged to address the following when requesting a Certificate of Appropriateness:

1. The relationship between the height and the width of the project is similar in proportion to the neighboring historic buildings.
2. The project is similar in massing and forms to neighboring historic buildings.
3. The project is oriented appropriately to the street, provides visual continuity, and is similar in the proportion of lot coverage to other buildings on the same block.
4. The proportions of the project facade and spacing are consistent with other properties along the street.
5. The project has front and side setbacks consistent with the prevailing, existing setbacks within a block, as viewed from the block face.
6. The project uses building materials that are congruous with those found within the district.
7. The project maintains similar solid-to-void ratios to those of buildings on adjacent sites within the block with overall proportions of windows, doors, and front façades.
8. The project uses similar roof form and materials drawn from historic structures in the district.
9. The exterior details and forms of the project provide a visual link between the old and new buildings.
10. The utility facilities used to serve the new construction are located out of view of the public right-of-way.
11. For all accessory structures, that the accessory structure is subordinate and secondary to the main building on the property as evidenced by the size, scale and mass of the accessory structure.
12. The project will not result in construction, reconstruction, alteration, restoration, moving or demolition of buildings, structures, appurtenant fixtures, outdoor advertising signs or natural features in the historic district which would be incongruous with the historical, architectural, archeological or cultural aspects of the district.



## Chapter 8: Glossary

If there is any conflict of definition between this document and the ordinance, the ordinance supersedes this glossary.

### **Accessory Dwelling Unit**

An accessory unit is a dwelling unit that is incidental and subordinate to the principal use of the premises, and does not alter the essential characteristics of the use.

### **Addition**

Any construction that increases the size of a building or structure in terms of site coverage, height, length, width or gross floor area.

### **Adjacent**

Properties that touch are contiguous to or are directly across a street or alley.

### **Alignment**

The arrangement of objects along a straight line.

### **Alterations**

Any exterior feature change, other than incidental repairs. Any construction, reconstruction, alteration, restoration, moving or demolition of buildings, structures, appurtenant fixtures, outdoor advertising signs or natural features in a historic district. Includes addition, remodel, new construction, and exterior renovation.

### **Building**

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

### **Building Footprint**

The portion of a lot covered by a building or structure at the surface level, measured on a horizontal plane

### **Building, Accessory**

A building which is subordinate to, and the use of which is incidental to that of the principal building or use on the same lot; but not including any building containing a dwelling unit.

### **Building, Principal**

A building in which is conducted the principal use of the lot upon which it is situated. Every dwelling in any "R" District is a principal building.

### **Certificate Of Appropriateness**

A permit issued by the decision-making body granting an application for the alteration, change demolition, relocation, excavation, or new construction of contributing site or structure, or non-contributing site or structure in an historic district.

### **Character**

The image and perception of an area as defined by its built environment; landscaping; natural features; and open space; the sizes, types and styles of structures; spatial relationships between the built and un-built environments; and streets, and sidewalks.

### **Clapboard Siding**

Siding, usually wooden, consisting of overlapping, narrow boards usually thicker at one edge; also called weatherboard siding

### **Commission**

Historic Preservation Commission

### **Congruous**

The sensitivity of a development proposal in maintaining the character of existing development. Elements affecting congruousness include, but are not limited to whether the form, texture, height, mass and bulk of alterations or new construction are in agreement, harmony, and coherence with and correspond to the setting and district. Congruous, compatible and harmonious are used as synonyms in these Guidelines.

### **Contemporary**

Belonging to the same period of time or built now; a temporal term that does not refer to architectural style (e.g., modern).

---

**Contributing**

A contributing building, site, structure, or object adds to the historic architectural qualities, historic associations, or archeological values for which a property is significant because (a) it was present during the period of significance, and possesses historic integrity reflecting its character at that time or is capable of yielding important information about the period, or (b) it independently meets the National Register criteria.

**Context**

The property site, all adjacent properties and properties within and across the block.

**Deconstruction**

Deconstruction refers to the careful disassembly of a building, or its components, such that the materials can be reassembled or reused in other construction.

**Design**

A visual arrangement or disposition that indicates a signature motif.

**Door**

A means of ingress or egress usually swinging or sliding between the exterior and interior of a structure.

**Exterior Features**

Include the architectural style, general design and general arrangement of the exterior of a building or other structure, including the color, the kind and texture of the building material and type and style of all windows, doors, light fixtures, signs, other appurtenant fixtures and natural features such as trees and shrubbery.

**Facade**

Front or principal face of a building, any side of a building that faces a street or other open space. Also "predominant elevation" or "primary elevation."

**Feeling, Integrity**

Although intangible, evokes by the presence of physical characteristics a sense of past time and place. For example, a streetcar

suburb retaining its original street pattern, lot sizes, and variety of housing types and materials will reflect patterns of suburban life reminiscent of the late nineteenth and early twentieth centuries.

**Fenestration**

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

**Form**

The overall shape of a structure.

**Green Building**

A building designed to make efficient use of physical resources and energy while minimizing its negative impacts to the environment.

**Historic Property**

Any building, structure, area or site that is significant in the history, architecture, archeology or culture of this state, its communities or the nation. Properties include any and all buildings, structures, areas or sites within a Historic District, including vacant or undeveloped land.

**Historic Preservation**

The research, protection, restoration and rehabilitation of buildings, structures, landmarks, signs, appurtenances, objects, districts, areas and sites significant in the history, architecture, archeology, education or culture of the City, State or Nation.

**Historic District - Commercial**

Any area designated as such by ordinance which includes or encompasses such historic sites, landmarks, buildings, signs, appurtenances, structures or objects as the Commission may determine to be appropriate for historical preservation. Such designated district or districts need not be a single en-

closed area nor do the areas or sites have to be contiguous to constitute a district. Noted on the zoning maps as an “HD” overlay zone or zones where the primary use is commercial, office, or high density residential.

**Historic District - Residential**

An area designated as such by ordinance which includes or encompasses such historic sites, landmarks, buildings, appurtenances, structures or objects as the Commission may determine to be appropriate for historical preservation. An area designated Historical District - Residential shall be predominantly of a residential nature. Commercial structures may be included within, and be a component part of a Historical District - Residential. Such designated district or districts need not be a single enclosed area nor do the areas or sites have to be contiguous to constitute a district. Noted on the zoning maps as an “H” overlay zone or zones.

**Incongruous**

Characterized by lack of harmony, consistency, or compatibility with one another.

**Integrity**

A property retains its integrity, if a sufficient percentage of the structure dates from the period of significance. The majority of a building’s structural system and materials should date from the period of significance and its character 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.

**Intrusion**

A building, structure, site or object that has no architectural, cultural or historical significance as relates to the contributing buildings, structures, sites or objects within the district and does not provide visual harmony

to the district.

**Mass**

The physical size and bulk of a structure. (Section 5.2)

**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.

**Noncontributing**

A noncontributing building, site, structure, or object does not add to the historic architectural qualities, historic associations or archeological values for which a property is significant because (a) it was not present during the period of significance, (b) due to alterations, disturbances, additions, or other changes, it no longer possesses historic integrity reflecting its character at that time or is incapable of yielding important information about the period, or (c) it does not independently meet the National Register criteria.

**Off-gassing**

The release of gas that was absorbed, trapped, frozen or dissolved in some material. (Also referred to as outgassing.) Typically in building materials this occurs as a byproduct of the manufacturing process and may be harmful.

**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.

**Pedestrian-friendly**

Design that considers the interaction and relationship between the building and people. Single story construction, windows, visually accessible front doors, short setbacks, porches and wide sidewalks contribute to a

---

pedestrian friendly environment.

**Period Of Significance**

Span of time in which a property attained the significance.

**Permaculture**

Permaculture is a gardening and landscaping method which uses a systems-level approach to maximize the efficiency of a site. A permaculture landscape is designed to include a wide variety of plants organized in a manner to be self-sustaining and require no added or artificial fertilizer, pesticide or irrigation.

**Property**

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

**Public Right-of-way**

An area dedicated for public use for pedestrian and vehicular movement including the street and sidewalk.

**R-value**

A measurement for the efficiency of the insulating qualities of a building material. The higher the R-value the higher a materials resistance to heat transfer.

**Rhythm**

Orderly reoccurrence of elements of design with possible variety and variation.

**Roof**

The upper cover of a building.

**Solid-to-Void Relationships**

The pattern of and proportional relationship of windows and doors to solid surfaces.

**Sustainability**

Sustainability is the managed use of resources in order to maintain a the quality of life for current and future generations. It includes social, environmental and economic components.

**Style**

A particular type of architecture based on distinctive qualities of design or decorative

details.

**Vegetative Ground Cover**

Grasses, shrubs, trees and other vegetation which holds and stabilizes soils. Non-vegetative materials include, but are not limited to, gravel, and river and lava rock.

**Window**

An opening, especially in the wall of a building, for the admission of light and air that is usually closed by casements or sashes containing transparent material.

**Xeriscaping**

Xeriscaping is a method of landscaping and/or gardening which requires zero artificial irrigation.

---

## Chapter 9.0: Bibliography and Selected References

Some of the following were used in creation of these Design Guidelines and also serve in part as additional resources:

- Blumenson, John J.G. Identifying American Architecture, 2nd ed. Nashville: American Association of State and Local History, 1981.
- Harris, Cyril. Historic Architecture Sourcebook. New York: McGraw-Hill Book Company, 1977.
- McAlester, Virginia and Lee. A Field Guide to American Houses. New York: Alfred A. Knopf, 1984.
- McKee, Harley J. Recording Historic Buildings. Washington, D.C.: U.S. Government Printing Office, 1970.
- National Park Service, "Preservation Briefs #17: *Architectural Character: Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving Their Character.*"
- National Park Service, *National Register Bulletin #14: New Exterior Additions to Historic Buildings: Preservation Concerns*.
- Phillips, Steven J. Old-House Dictionary: An Illustrated Guide to American Domestic Architecture, 1600 to 1940. Lakewood, Colo.: American Source books, 1989.
- Poppeliers, John, S.A. Chambers and N.B. Schwartz. What Style is It?. Washington, D.C.: National Trust, 1977.
- Rifkind, C. A Field Guide to American Architecture, New York: New American Library, 1980.
- Whiffen, Marcus. American Architecture Since 1780: A Guide to the Styles, Cambridge: MIT Press, 1969.
- Whiffen, Marcus and Frederick Koeper. American Architecture 1607-1976. London: Routledge & Kegan Paul, Cambridge, MA: Ltd MIT Press, 1981.
- Boise City Historic Preservation Commission. Design Guidelines for Boise City's Historic Districts. 1987.
- City of Eugene, Advisory Design Guidelines for Historic Residential Properties.
- City of Nashville. Edgefield Historic Zoning District Handbook and Design Guidelines. 1994.
- Hartmans, D., Arrow Rock Architects. Boise East End Reconnaissance Survey, Prepared for the Boise City Historic Preservation Commission and Boise City Planning and Zoning Department. 2000.
- Hartmans, D., Arrow Rock Architects. Near North End Reconnaissance Survey, Prepared for the Boise City Historic Preservation Commission and Boise City Planning and Zoning Department. 1997.
- Hodges, K.R., and Bauer, B.P. Boise's North End Neighborhood Statement of Significance, Prepared for Boise City, Community Planning and Development Department. 1993.
- National Park Service, *Preservation Briefs*, Technical Preservation Services, can be viewed at <http://www2.cr.nps.gov/tps/briefs/presb-hom.htm>.
- Rypkema, D.D. Forum Journal, The Oversimplification of Gentrification, The Journal of the National Trust for Historic Preservation, Vol. 18, No. 4, p. 26. 2004.
- Tampa Architectural Review Commission. Hyde Park Design Guidelines, A Guide to Rehabilitation and New Construction in the Hyde Park Historic District, Architectural Review for Historic Preservation, City of Tampa, Florida. 2002. [Served as a primary source for drawings and secondary source of information for the design guidelines.]

- U.S. Department of the Interior, The Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings.
- U.S. Department of the Interior. National Register Bulletin: Historic Residential Suburbs, Guidelines for Evaluation and Documentation for the National Register of Historic Areas. 1992.
- U.S. Department of the Interior. Illustrated Guidelines for Rehabilitating Historic Buildings, Washington D.C., Cultural Resources Preservation Assistance Division. 1992.
- Winter, N.V. Design Guidelines for Historic Districts in the City of Pasadena, California with the Secretary of the Interior's Standards for Historic Preservation. 2002. [Served as a secondary source for drawings and information for the design guidelines.]
- Winter and Company with Clarion Associates. Design Guidelines for Residential Historic Districts in Salt Lake City. 1999. [Served as a secondary source of information for the design guidelines.]
-