Rehab Astoria Right:

A guide to working with Astoria's historic residences

City of Astoria

These guidelines are not meant to be all encompassing and should not be taken as a legal interpretation of the Development Code – Article 6, Historic Properties Ordinance.

Before beginning any remodel or restoration project contact the Community Development Department to determine how codes and ordinances may apply:

Community Development Department
City of Astoria
1095 Duane St.
Astoria, OR 97103
503.338.5183
www.astoria.or.us

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Astoria's National Historic Register Districts Include:

1. Uniontown-Alameda Historic District
2. Astoria Downtown Historic District
3. Shively-McClure Historic District

Astoria's Historic Inventoried Areas Include:

4. Hobson-Flavel Neighborhood
5. Adair-Uppertown Neighborhood

Why is it important to retain the historic character of Astoria's buildings?

Most of us who live in Astoria feel lucky to be here. Part of what makes Astoria special is its sense of history. Our historic buildings are tangible reminders of our collective heritage: they reflect who we are, where we came from, and why we are here. Thoughtful stewardship of our built environment ensures this sense of identity will be passed to future generations.

By preserving these buildings, we benefit the community in many ways. Historic buildings define community character and increase neighborhood pride. They can bring economic benefits to the community – by saving money and resources during rehabilitation, generating jobs, or by attracting visitors or customers to the area.

What makes neighborhoods & districts feel historic?

The historic character of the neighborhood is formed by the buildings that comprise it, and by their consistent relationship to each other and the street. Maintaining the historic character of the neighborhood requires a familiarity with many elements that we often taken for granted.

In residential areas, most blocks are formed by houses of roughly the same size, spaced from each other in a consistent manner, and set back from the street in a uniform distance. Something as simple as where a house is placed on its lot can significantly contribute to, or detract from, the overall harmony of the block.

Astoria is composed of historic[1] houses of many styles, the most prominent being Queen Anne, Colonial Revival and Craftsman.[2] All share certain features ... although their form and details may be different for each style. All elements make each house unique. Every effort should be made to preserve these both for the benefit of the house and as a way to contribute to the historic character and integrity of the neighborhood. If earlier work has compromised these elements, consider restoring them as part of a more sympathetic historic rehabilitation. Compromises, if necessary, should be on portions of the house less visible from the street.

1 Historic houses include styles 50 years or older. Today, Mid-Century or Ranch houses are considered the "new historic."

2 Vernacular, or houses with less formal design elements, are also found throughout Astoria. In some cases, they may blend period styles together.

What gives each house its historic character?

Roof

Shape: Hip, gable, gambrel, mansard
Pitch: Steep, shallow, flat
Material: Wood shingle, standing seam metal, composition asphalt
Decorative features: saw-cut bargeboard, metal cresting, sunbursts and stickwork

Windows

Type: Double-hung, casement, fixed
Size and proportion: Tall, square, banded together
Material: Wood, steel, aluminum
Muntins: Number, size and depth
Casings: Width, depth and reveal (shadow line)
Proportion: Window to overall wall surface

Siding

Materials: Wood or masonry
Type: Shingle, clapboard, drop, or board and batten
Exposure: Width of siding
Profile: Depth of siding and how large a shadow it casts
Direction: Vertical, horizontal or diagonal

Porches

Material: Wood, wrought iron
Depth: Recessed into or projecting from facade
Location: Symmetrically or asymmetrically on facade
Decorative features: spindle-work, chamfered posts, turned posts, tapered boxed columns

Volume

Form: Cubic, vertical, horizontal
Complexity: Use of bay windows, turrets or other projections

How do I retain or enhance the historic feel of my building?

Most historic buildings were built to last. However, time and subsequent alterations can make them fragile and more susceptible to damage. Knowing the proper way to approach the rehabilitation of an older building can make the difference between a successful rehabilitation project and one that needlessly destroys historic fabric.

The house below has undergone extensive alterations that are incompatibe with it's historic style:

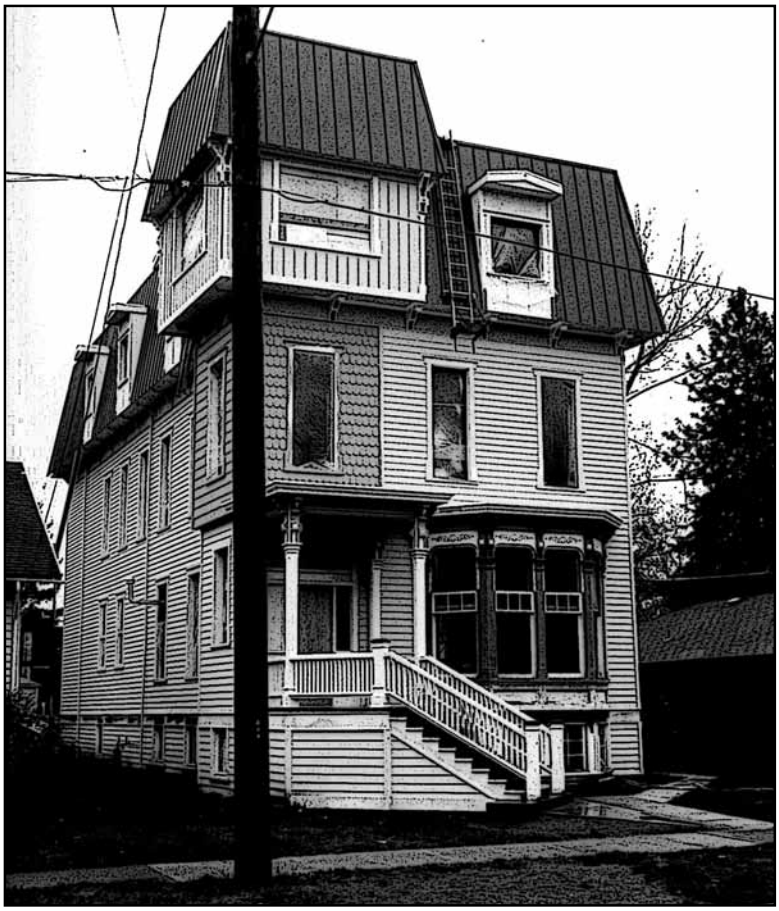
Vinyl siding installed over original wood siding.

Double-hung windows replaced by single-light fixed windows throughout.

Second floor corner in-filled with addition.

Low-pitched, hipped roof replaced by third-story addition with a steep, metal-clad roof, and out-of-place square turret.

Front steps reconstructed at a diagonal to house.



When rehabilitating your house, be sure to retain as many character-defining features and original materials as possible. These before and after photos (above) show how easy it is to lose those parts that give your home character and value.

Four steps to successfully rehabilitate your building.

Step 1

Identify the most architecturally significant features of the building.

Step 2

Review the rehabilitation options for each feature.

a) Retain or repair historic features and materials.

b) Replace to match the original materials as closely as possible.

c) Or, replace the original with a compatible substitute material or feature that matches the original as closely as possible.

Step 3

Determine what can be repaired and what must be replaced. Calculate the costs for each component and the overall project cost.

Step 4

If the overall project cost is too great, reassess the options and consider less costly alternatives or compatible substitute materials.

Protecting the historic character of a building is based on a few common sense principles.

Historic features should be preserved where possible.

Some features, such as windows, are more central to defining the character of a house and the district, and the preservation of these features should be given priority.

Because of their impact on the neighborhood, historic features seen from the street are the most important. These should be given the first priority in rehabilitation.

What should I consider when I place an addition on my house?

An addition should be made distinguishable from the original building, in subtle ways, so that the character of the original can be interpreted.

Creating a jog in the foundation between the original and new structures may help define the addition.

Applying a new trim board at the connection point between the addition and the original structure can help define the addition.

An addition should relate to the historic building in mass, scale and form. It should be designed to remain subordinate to the main structure.

An addition should be simple in design to prevent it from competing with the primary façade.

An addition should be set back from any primary, character-defining façade.

Locating an addition at the front of the structure is inappropriate.

Typically, gable, hip and shed roofs are appropriate for residential additions. Flat roofs are generally only appropriate for Mid-Century houses.

A dormer should be subordinate to the overall roof mass. It should be of similar scale and detail with those found historically on similar structures.

Alterations that obscure significant historic features are inappropriate.[1]

One story front view

Original Not Recommended

Not Recommended Recommended

Two story front view

Original Not Recommended

Not Recommended Recommended

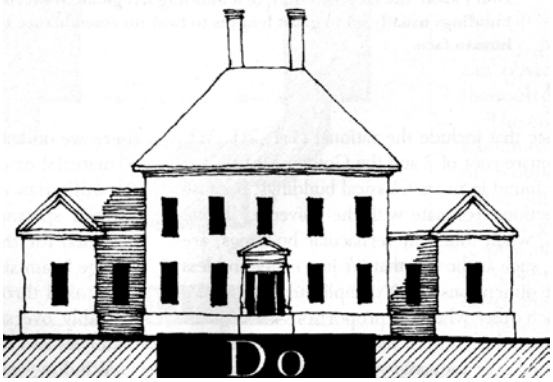
1 Grimmer, Anne E. and Weeks, Kay D. *Preservation Briefs 14: New Exterior Additions to Historic Buildings: Preservation Concerns*. National Park Service, 2010. electronic. October 2013

How do I design a new house within a traditional historic neighborhood?

Don't use complicated forms. Too many gables, dormers and roof breaks is not only visually confusing, but unnecessary to create a "historic" feel.

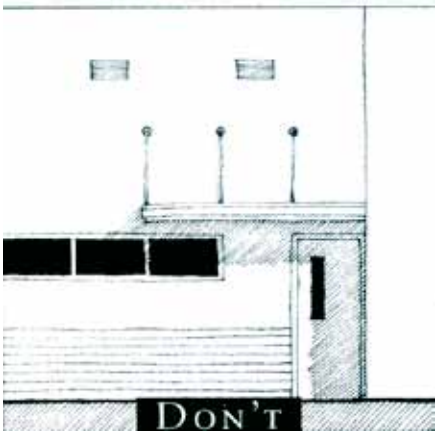
Do keep massing simple. Composing a house with one or a few simple boxes is more traditional. It allows the main form of the house to stand on its own, rather than visually compete with extraneous forms.

Don't clump everything equally under one enormous roof. Many large, Neo-Traditional houses have a confusing assembly of gables. At first glance, these houses neither reveal the entry nor where the principle rooms of the house are located. All buildings should pass the "First Glance Test," but many large Neo-Traditional houses fail miserably.

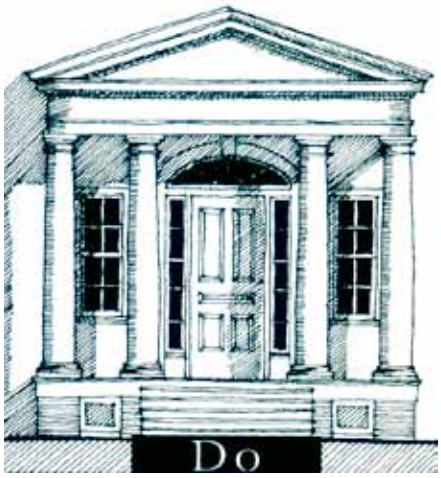


Do mass a house so that it passes the First Glance Test. Massing of a house should clearly show two things at first glance: the location of the main body of the house and the location of the entry for people, which ought to be more important and more dignified than the car entry.

Don't make the entry of a building irregular. Modernist buildings often go to great lengths to avoid symmetry.

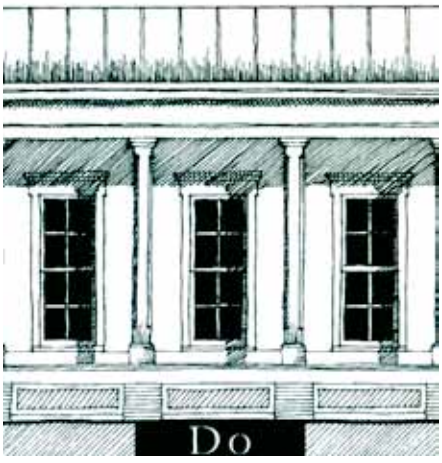


Do reflect symmetry at the entry of a building. Although entries do not have to specifically look like a human face, it is helpful if they are laid out according to the same principles of composition, i.e. the door placed like a mouth and windows on the facade above (not shown here) placed like eyes.



Don't place openings and columns randomly. The phrase "form follows function" has been used as an excuse for years to compose elevations without a sense of rhythm, whose openings are placed according to the functional needs of the interior rooms. In all but the most skilled hands, the results usually resemble this.

Do place columns and openings according to a rational system. Openings – centered between regularly spaced columns – is one obvious strategy, but the most important thing is to compose an elevation with clarity and rhythm. [1]



1 Mouzon, Stephen and Henderson, Susan. *Traditional Construction Patterns.* McGraw-Hill Companies, 2004. print

Successful infill within traditional neighborhoods has the following traits:

The footprint and foundation of the new structure should be similar to the ones surrounding it.

Its setback should be aligned with its neighbors.

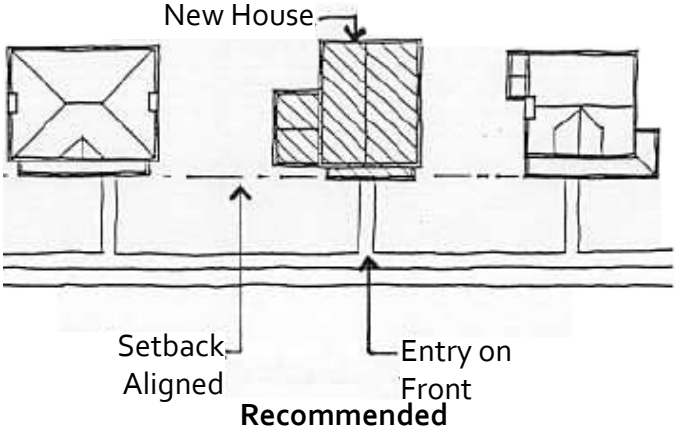
The front entry should face the same direction as those found on traditional houses. For instance, if entries are typically found on the front of houses, the new structure should face its entry toward the street.

New structures should use siding materials that are visually and physically similar to its neighbors.

The roof shape should match neighboring roofs in pitch, complexity and orientation.

New structures should be of similar height to and mass of its neighbors.

The amount of detailing or ornamentation used on new construction should respect that used on traditional houses.



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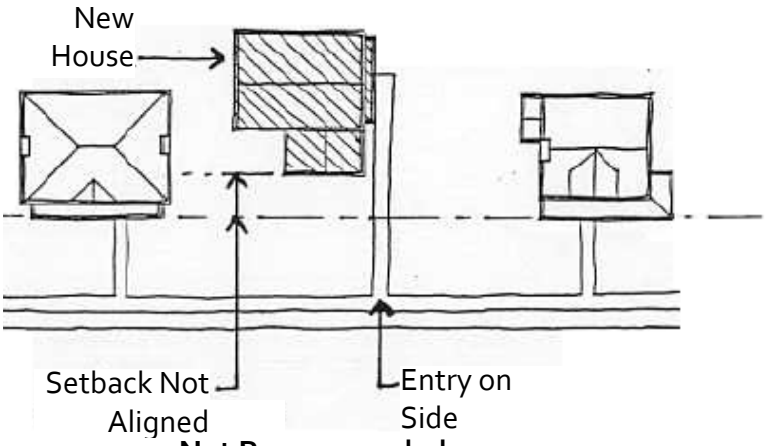
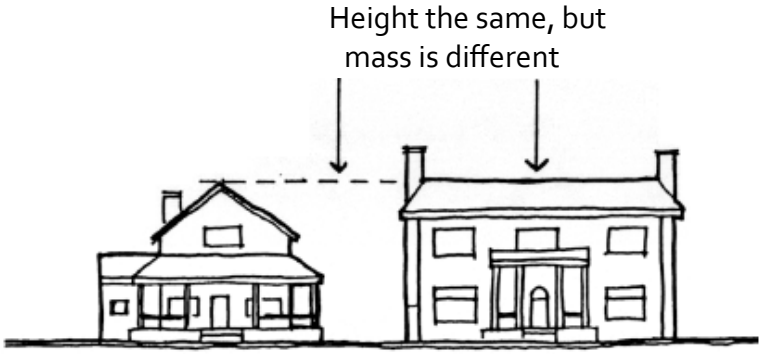
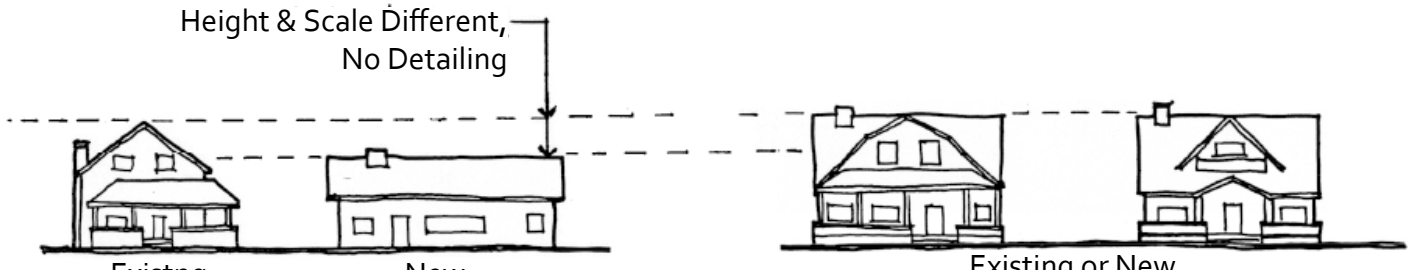


Not Recommended



Recommended **Not Recommended**



Not Recommended **Recommended**

Spokane City/County Historic Preservation Office. "Corbin Park Neighborhood Design Guidelines." 1993. print

How do Mid-Century houses differ from Traditional historic houses?

After World War ll, houses based on historical precedent were largely abandoned. The earliest of these "**Mid-Century** houses," the **Minimal Traditional style**, was a simplified form loosely based on the previously dominant Tudor style of the 1920s and 1930s. Like Tudor houses, these generally have a dominant front gable and massive chimneys, but the steep Tudor roof pitch is lowered and the facade is simplified by omitting most of the traditional detailing.

Minimal Traditional style

By the early 1950s, they were being replaced by the **Ranch style**, which dominated American domestic building through the 1960s. These are one-story houses with very low-pitched roofs and broad, rambling facades. Some lack decorative detailing, but most have decorative shutters, porch-roof supports, or other detailing; these are usually loosely based on Colonial precedents.

Ranch style

Also during the 1950s, the closely related **Split Level style**, with half-story wings and sunken garages, began to emerge. These generally have some traditional decorative detailing but their unusual form clearly marks them as modern houses. The style was popular well into the 1970's.

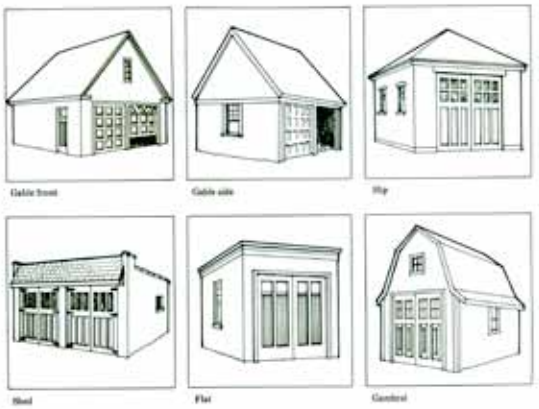
Split Level style

A somewhat less common modern style, the **Contemporary**, completely eliminated traditional form and detail, and was favored in architect-designed houses of the 1950s, 1960s, and early 1970s. These generally have wide eave overhangs and either flat roofs or low-pitched roofs with broad, low, front-facing gables. Exposed supporting beams and other structural members are common. Contrasting wall materials and textures, and unusual window shapes and placements are also typical features.[1]

Contemporary style

1 McAlester, Virginia & Lee. *A Field Guide to American Houses*. New York: Alfred A. Knopf, Inc, 1984. print

What should residential garages or accessory buildings look like?



Historic garages often reflect the style and character of the primary structure.

Car garages or accessory buildings – those secondary to the primary structure – are often overlooked. Many accessory buildings in historic neighborhoods were designed to reflect the style of the primary structure.

Standards:
Locate an accessory building to the rear of a lot.

Construct an outbuilding that is subordinate in size and character with the primary structure.

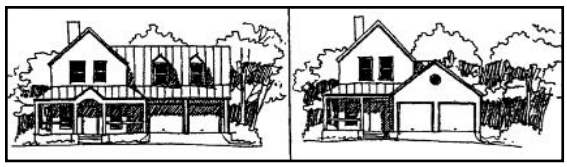
An accessory building should be similar in character and design to those seen traditionally in the neighborhood.

While the roof line does not have to match the house, it is best that it not vary significantly.

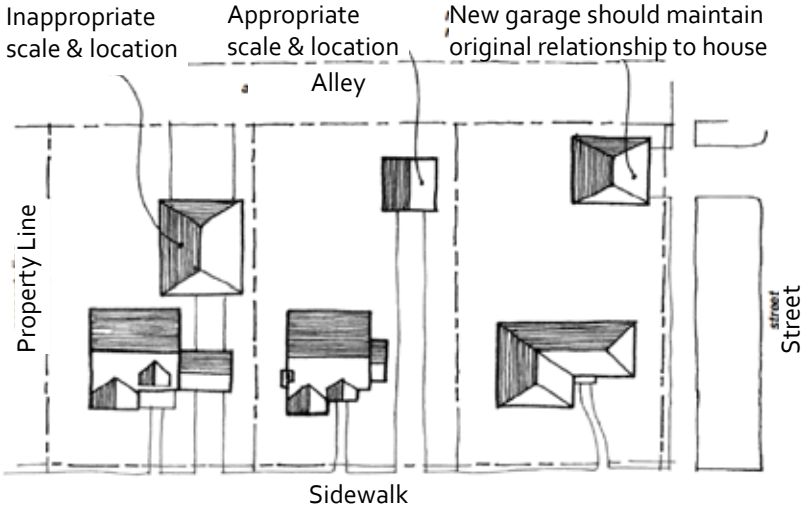
Basic rectangular forms, with hip, gable or shed roofs are appropriate.

A contemporary interpretation of an accessory building may be considered.

In addition to standard wood-framed garages. Astoria features concrete garages recessed into its hillside accessible from street-level.



Garage proportions do not over-shadow the main house. They are set below the main roof line or set back from the main facade. Car entries should be secondary to the human entry. (left) Garages should not compete with the front entry. (right)



How have residential garages evolved?

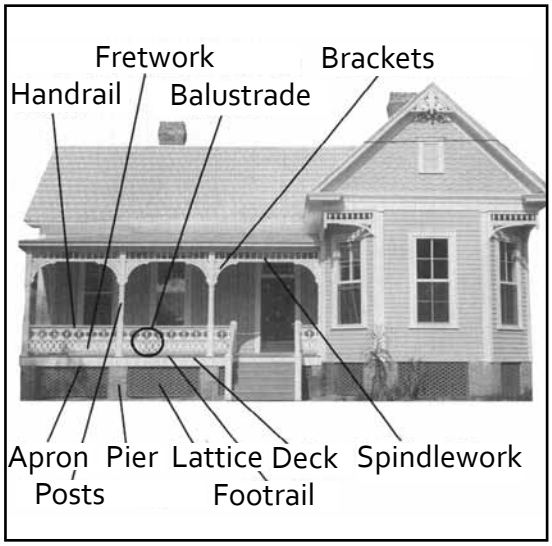
Cars first became common in the 1910s. They were housed in detached, external garages. Since then, there has been a trend to house automobiles within portions of, or extensions to, the main house. This trend has dramatically affected the overall size and shape of houses.

In 1930, 15% of the house was typically devoted to storing the car; in 1945, 25%; in 1960, 45%.[1]

Moving clockwise around the photos on the page: a typical garage in the 1920s (top), garages moved into the house in the 1930s (middle right), garages became extensions of the house in the 1940s (lower two photos, right), in the 1950s garages were set within the main roofline of the house (bottom left), a typical garage found in many new, suburban developments (below). The modern, suburban garage dominates the front facade of the house and is not appropriate for traditional homes or neighborhoods.

1 McAlester, Virginia & Lee. *A Field Guide to American Houses*. New York: Alfred A. Knopf, Inc, 1984. print

The front porch, steps and rail on my house are missing or in need of replacement. What should I consider when constructing new porch elements?



When preserving historic houses, it is important to understand the history and evolution of the house and which features contribute to its historic character. This is especially applicable when working with historic porches since they are usually prominent features and significant to the character of the building.

The following questions will help you preserve the historic feel of your home's porch:
What has the porch looked like in the past?

What, if any, changes have taken place to the historic porch over the years?

What are the character defining features of the porch?

How does the porch contribute to the building's overall appearance?

Replacement of individual porch parts should only be pursued when the details are deteriorated beyond repair or missing altogether. To retain the historic character of the porch, the replacement parts should match the historic component as closely as possible in material, design, color, texture and other qualities. To achieve this, existing evidence of the historic design, such as a construction shadow line, should serve as a pattern for the replacement part.

Original Not Recommended

Not Recommended Not Recommended

Before you replace a deteriorated porch component, it is important to understand how it was constructed and installed and what lead to its deterioration. If the cause of material failure is not addressed, the replacement will also fail. When replacing a wood element, consider upgrading it to a more decay resistant wood species, or to a vertical grain that has more resistance to cupping and splintering. In limited cases, it may be appropriate to use a substitute material as long as it conveys a close visual match.[1] The use of composite decking, for instance, has been used successfully on some historic porches in Astoria.

1 Sullivan, Aleca and Leeke, John. *Preservation Briefs 45: Preserving Historic Porches*. National Park Service, 2006. electronic. October 2013

What should I consider when constructing a deck attached to my historic house?

Much like the front porch, decks should pick up stylistic cues from the historic character of the house. A deck which looks good on one house, may not look good on another.

If you are constructing a deck it is important to consider the following:
Place the deck on a less visible elevation.

Make sure the deck is not so large that it competes with the volume of the house.

Decks less than 30" above grade are not required by code to have handrails.

Keep handrails simple and as low as possible to reflect proportions found on historic porches.

Lattice beneath the deck gives it a visual base and helps it blend with the historic character of the house.

Use pressure treated wood without cleat marks on it.

Wrap all raw ends with trim. And, make sure all connections are covered with trim or countersunk.

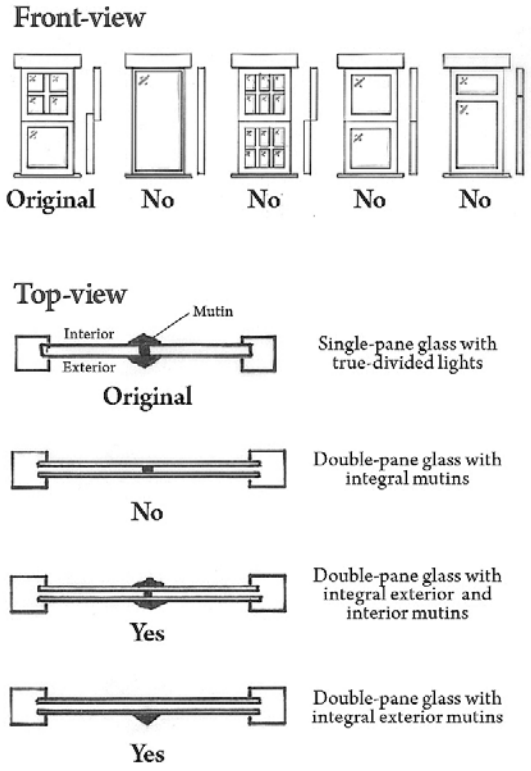
Balustrades should be painted, not stained.

Decks should pick up the stylistic cues from their houses. Raised decks should use lattice as a way to give the structure a more finished look. Handrails should end at newel posts.

Low decks help retain the historic character of the house by not competing with the scale and volume of the house.

Keep handrails simple and low. A light, upper rail can be added to help meet required building codes.

My building has old, wood windows. Isn't replacement more cost effective and energy efficient than retention?



Maintaining a window's original style and configuration helps retain its historic character. Retaining the original profile of the muntins not only maintains the window's stylistic character, but retains shadow lines that give the window visual depth.

Double-hung wood windows are the "standard" window for historic houses in Astoria, being virtually the only window type used (except for ornamentals) in residential construction from the 19th century through the early 20th.

Stained glass and distinctive gable end and stair windows personalize houses and merit special preservation efforts. Given their prominence, every effort should be made to save and maintain historic windows.

Wood windows require routine re-caulking and repainting to prevent deterioration.

Severe deterioration of some windows in a house may warrant the replacement of the deteriorated units in kind. However, the replacement of all windows should only be considered if the overwhelming majority of windows are severely deteriorated or missing.

Proper maintenance and weather-stripping can improve the energy efficiency of existing windows.

It is important to note that the cost of replacing existing sound windows with new "energy efficient" windows cannot be recouped in energy savings over any reasonable period of time.

Storm windows may be added to historic wood windows to increase energy efficiency. Wood storm windows were a part of the "original equipment" for many historic houses.[1]

Today, for economy, many homeowners select wood-clad, vinyl storm windows. When made to a narrow or low profile, in a color compatible with the rest of the house, sized to fit the full opening, and divided at the same point as the historic sash, these contemporary alternatives can be unobtrusive. Another option is to install interior, sash storm windows.

1 "Fixing Double-Hung Windows." *Old House Journal*: 1979. print

The wood siding on my house has rotted. What are my options for replacing it? And, what should it look like?

Original siding materials should be maintained whenever possible. Substitute siding should be consistent with the style, depth and exposure found on the historic house. If the original siding is missing, new siding should be consistent with the predominant materials used on buildings of similar architectural style.

When replacing siding, be sure to stagger the joints. Joints that are aligned vertically from piece of siding to another encourage moisture penetration.

It is important to maintain the same exposure (or width), the same direction, and similar appearing material as the original siding.

Original

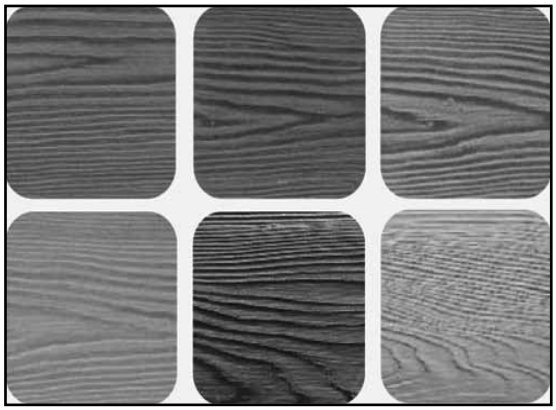
Not Recommended

Not Recommended

Not Recommended

Prior to restoration, the house (top) had siding with wider exposure than that originally used on the building. When the house was restored, and the siding removed, the historic proportions of the house were restored as well (bottom).

How do I choose appropriate substitutes for traditional materials?



Wood grained vinyl or cement-based siding appears to be poorly maintained or worn rather than smooth, well cared for wood siding (top). Vinyl siding is frequently a different proportion than historic wood siding and can accelerate the rot of that siding (middle). Vinyl siding and windows do not retain the depth and shadow lines associated with wood construction (bottom).

Contemporary substitute materials may be used on a limited basis, but should not make up the majority of the finish materials on a historic building. The physical properties of substitute materials must be similar to those of the historic materials they mimic. Substitute materials should also have a demonstrated record of overall quality and durability. When considering substitute materials, the closer an element is to eye level, the more closely the material and craftsmanship should match the original.

Careful consideration should be given to the placement of substitute materials in relationship to historic materials on the original structure. Make sure the transition between old and new is differentiated but not distracting or otherwise visually unattractive. Substitute materials should not result in damage to adjacent historic materials either during their installation or over time.

When working with dissimilar materials, it should be remembered that moisture penetration, ultraviolet degradation, and differing thermal expansion and contraction rates can make any repair or replacement problematic.[1]

In order to ensure that repair or replacement will perform well over time, the following is critical:
Understand the properties of both the original and substitute materials.

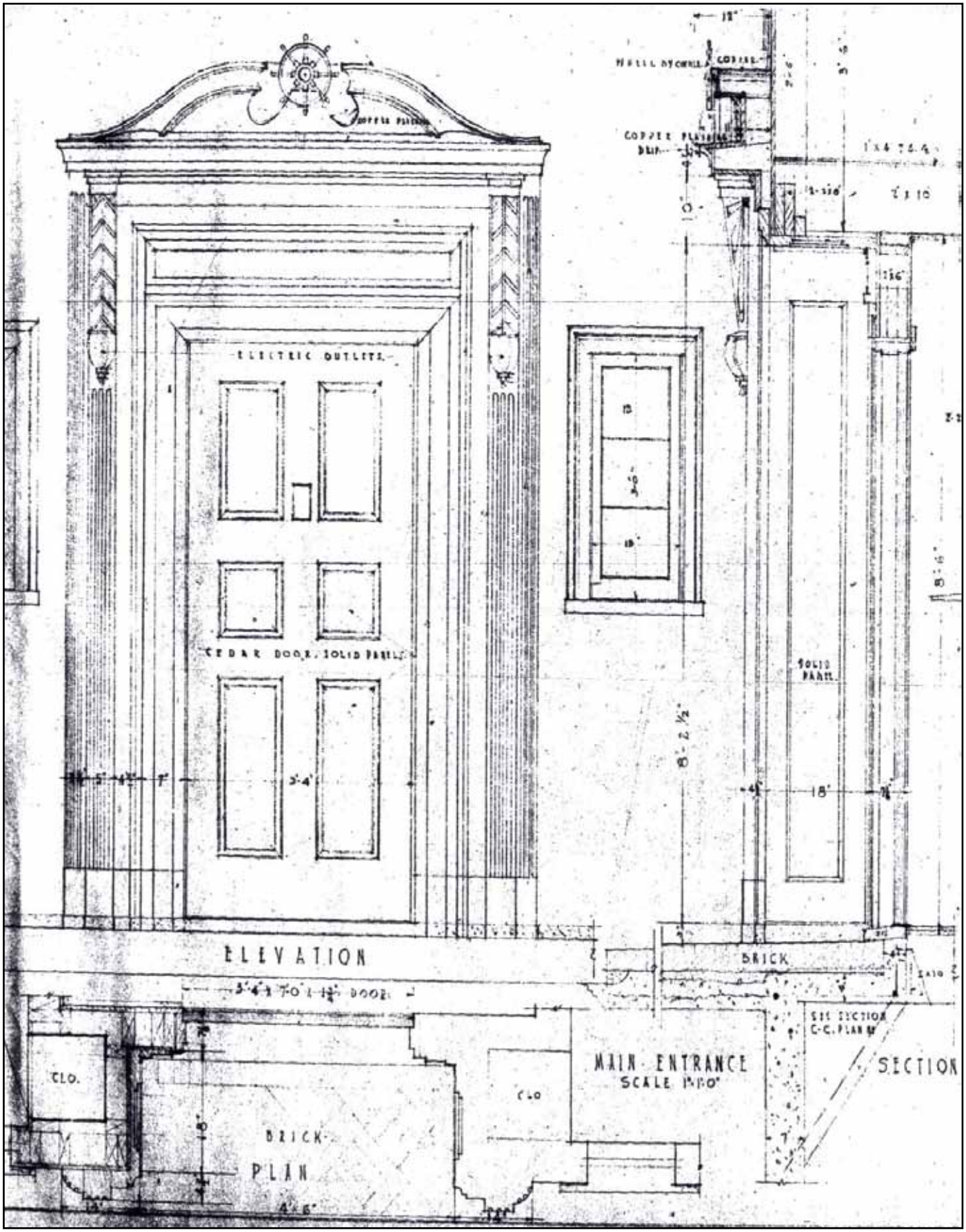
Install replacement materials correctly.

Assess the impact of the substitute material on adjacent historic materials.

Have a reasonable expectation of the material's longevity.

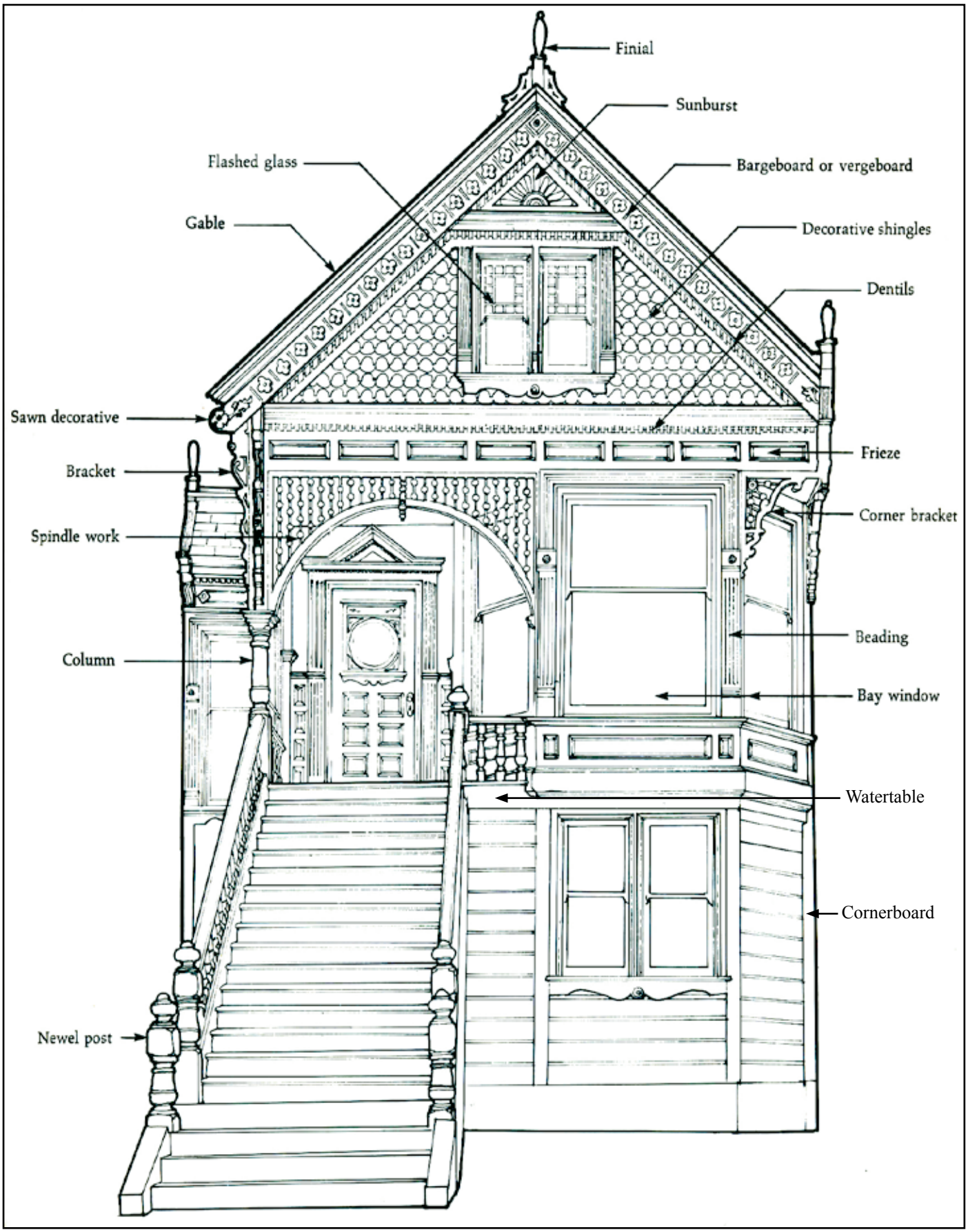
1 Jandl, H. Ward. *Preservation Briefs 16: The Use of Substitute Materials on Historic Building Exteriors*. National Park Service, 1988. electronic. October 2013

Appendix
Additional building detail information

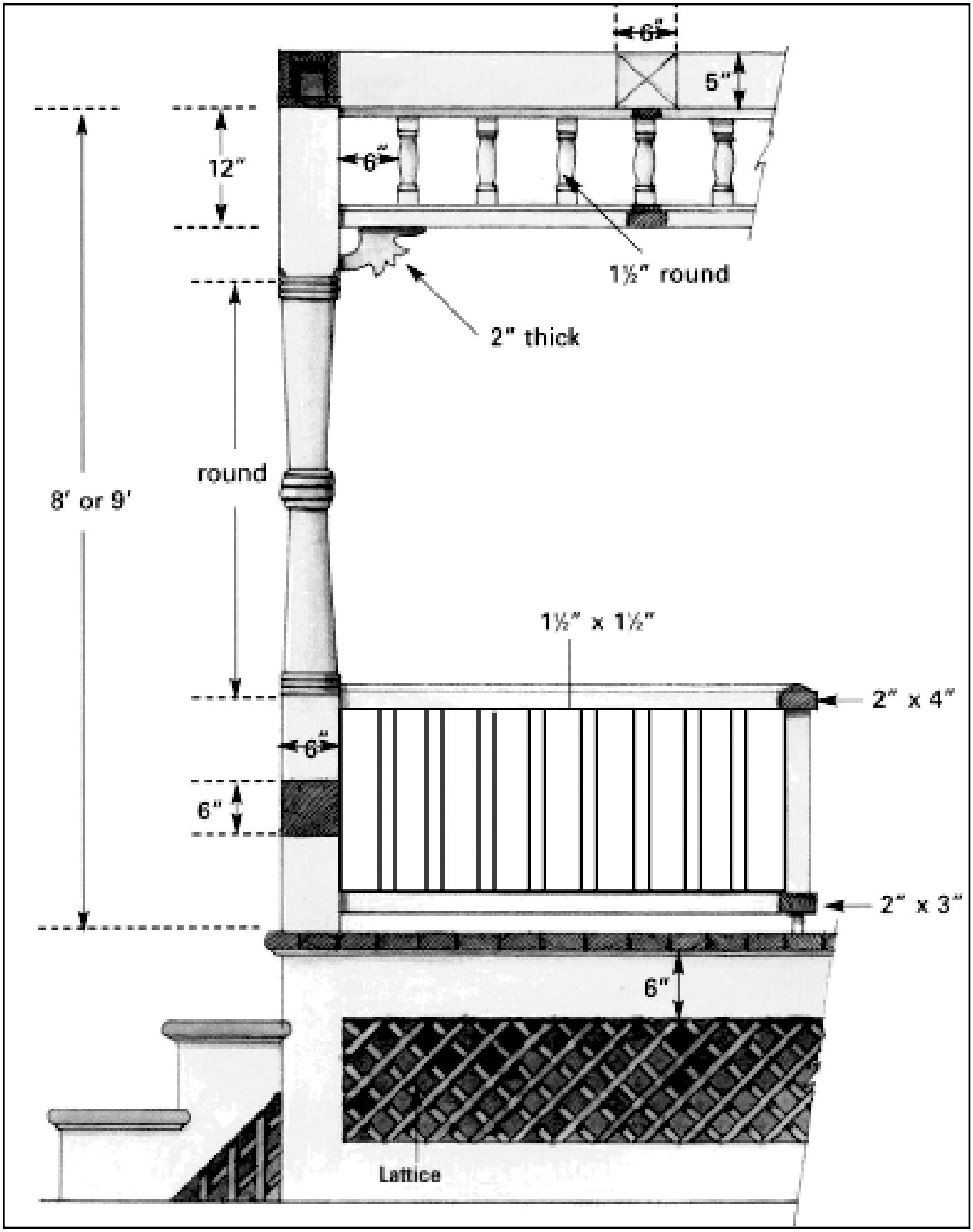


Detail from Edward W. Elfving residence, Astoria, designed by John E. Wicks, ca. 1925.

Basic terminology of architectural detail



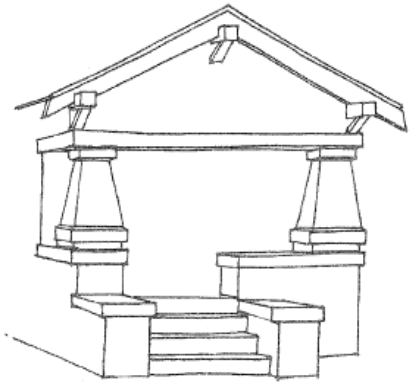
Olwell, Carol and Waldhorn, Judith Lynch. *A Gift To The Street*. San Francisco: Antelope Island Press, 1976. print



This drawing represents basic porch proportions and details. Although not dimensioned here, historic handrails are generally 28" to 30" above the porch floor. Note that the balustrades are constructed within –and do not overlap – the upper and lower rails as is sometimes done on modern decks.

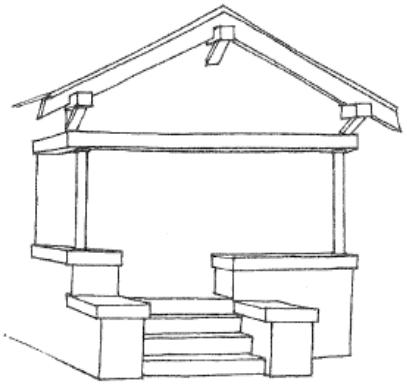
Leanna, Robert. "Late-Victorian Veranda." *Old House Journal*. July/August 2006. print

ELEPHANTINE COLUMNS: DO'S AND DON'T'S



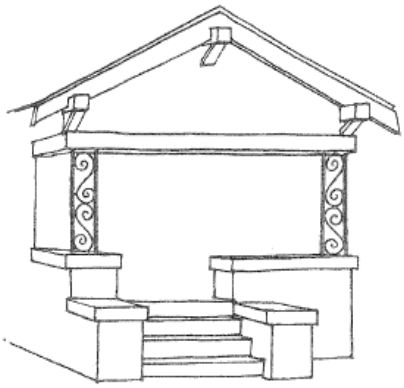
ORIGINAL ELEPHANTINE COLUMNS

SUBSTANTIAL AND SOLID-LOOKING LIKE THE HOUSE ITSELF



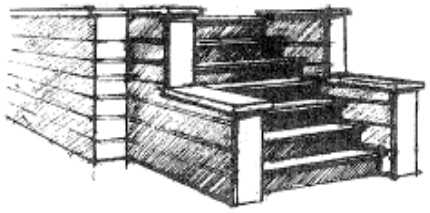
STEEL PIPE COLUMNS

ALTHOUGH STRUCTURALLY ADEQUATE, THEY DON'T LOOK STURDY ENOUGH TO HOLD UP THE PORCH ROOF



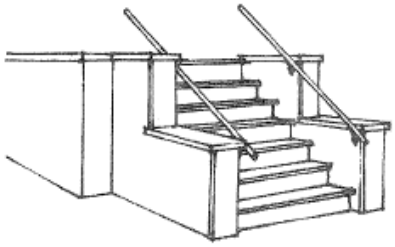
WROUGHT IRON STYLE COLUMNS

CURVY AND LACY IN TEXTURE, THEY ARE VERY OUT-OF-PLACE ON A BUNGALOW PORCH. ALSO, THEY MAY NOT BE STRUCTURALLY SOUND.



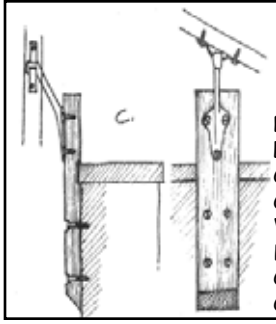
ORIGINAL DESIGN

VISUALLY & PHYSICALLY SOLID, USES CORRECT MATERIAL (WOOD), PROPORTIONS ECHO THOSE OF HOUSE.



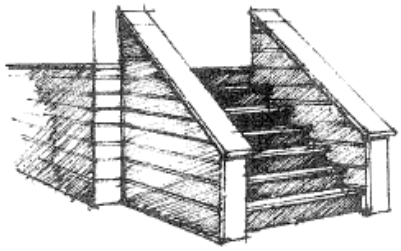
DESIGN INTEGRITY

THINK OF YOUR STAIRCASE AS AN EXTENSION OF THE HOUSE, UNIFIED IN STYLE, RATHER THAN AS A SEPARATE, REPLACEABLE COMPONENT. MAINTAIN OR RESTORE THE ORIGINAL DESIGN AND AVOID THE TEMPTATIONS OF READY-MADE WROUGHT IRON RAILINGS OR OVERSIMPLIFIED CONSTRUCTION TECHNIQUES.



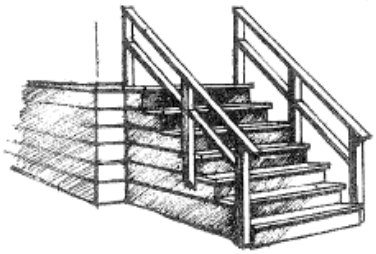
DON'T LEAVE CONSTRUCTION CONNECTIONS VISIBLE. WRAP BEHIND TRIM OR COUNTER SINK CONNECTIONS.

INAPPROPRIATE DESIGNS



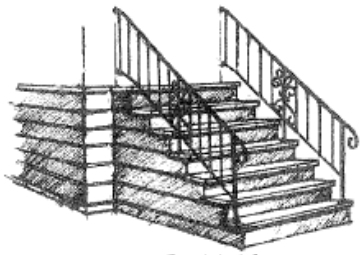
ANGLED SOLID RAILING

PROBLEMS: DOESN'T FIT SQUARE FEATURES OF STYLE, MAKES STAIRS SEEM NARROW & ENCLOSED.



RANCH STYLE RAILING

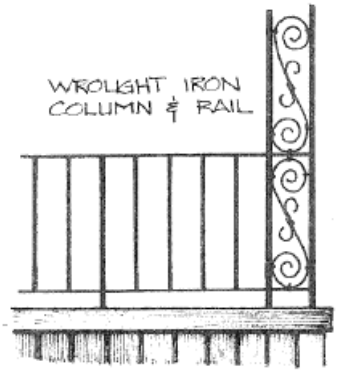
PROBLEMS: "BACK STAIRS" CHARACTER, INSUBSTANTIAL QUALITY, NO RELATIONSHIP TO HOUSE DESIGN.

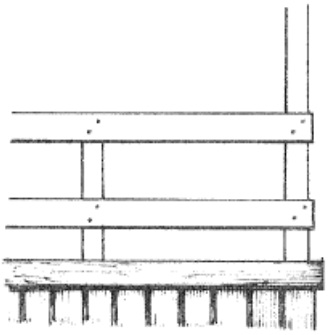


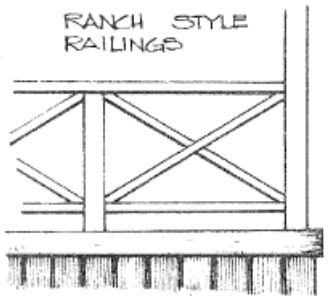
WROUGHT IRON RAILING

PROBLEMS: FLIMSY APPEARANCE. WRONG MATERIAL, INCONGRUOUS CURVED "SPANISH" ORNAMENTS.

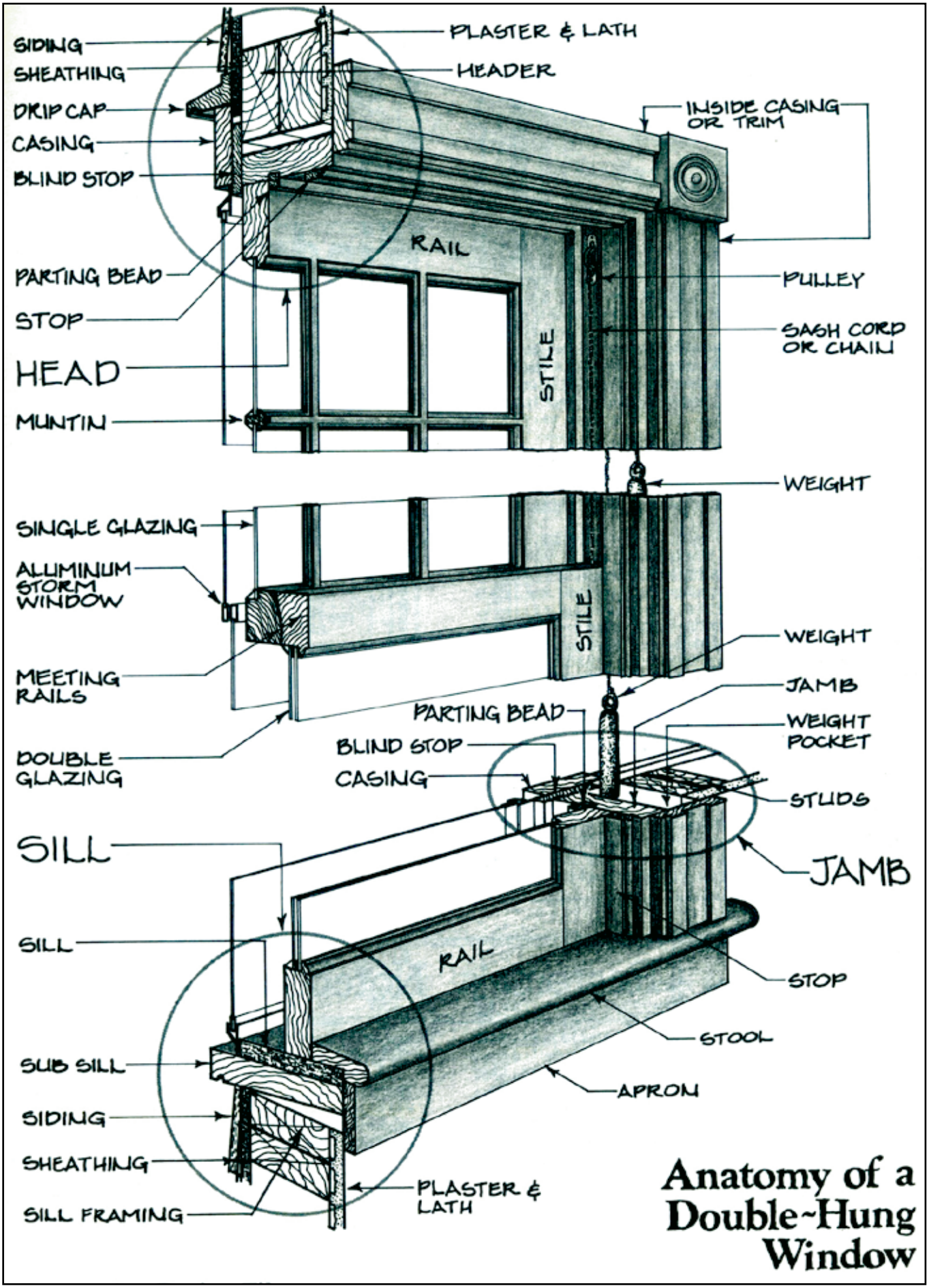
PORCH RAILINGS TO AVOID







City of Oakland. *Rehab Right: How to Rehabilitate Your Oakland House Without Sacrificing Architectural Assets*. City of Oakland, 1978. print



"Fixing Double-Hung Windows." *Old House Journal*: 1979. print

A SIDING GLOSSARY

BEVEL SIDING

Rived Clapboard

Hand-split and hand-planed.

Riftsawn and Resawn Clapboard

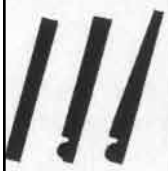
Riftsawn clapboard has true quartersawn grain and is an isosceles triangle (when viewed on end) with a fine feather edge. Resawn clapboard has quarter- to flatsawn grain and forms a near-right triangle.

Bungalow

A thicker and wider variety of resawn bevel siding, known as "Colonial" in some areas.

WEATHERBOARDS

"Colonial" siding in Port Royal, Virginia, c. 1750

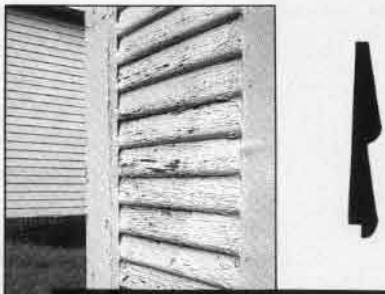


Generally, a wide, sawn, lapped siding layed parallel to the ground. Non-beveled weatherboards (called "Colonial" siding in some areas) are rectangular on the end and often incorporate a bead. Other types have a gradual taper less than true beveled siding.

DROP SIDING

Drop siding lies flat on wall studding and is usually ¾ inch thick. It has matched edges, either shiplapped or tongue-and-groove, to make tighter joints than bevel siding, and can be used without sheathing. By some standards, drop siding is only tongue-and-groove and in many areas all patterns are called novelty siding.

No. 177, sometimes nicknamed "Waterfall" (Shohola, Pennsylvania, c. 1907)

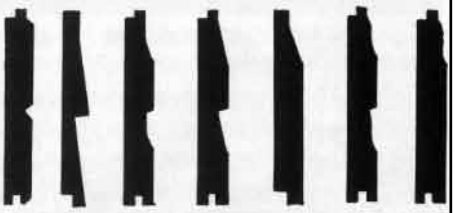


The ubiquitous "cove" pattern, also called "novelty" in its own right. Cove siding was popular by 1880, and may have been patented fifteen years earlier.

A local variant of No. 113 ("The Mockert House," San Antonio, Texas, c. 1870)

A Few Patterns of Drop Siding

from 1926 (California White and Sugar Pine Manufacturers Association)



RUSTIC SIDING

Each of these sidings is milled so that their actual thickness is less than their appearance. This approach saves lumber and allows the use of extra nails on wide patterns to prevent warping.

Log Cabin

A log lookalike with shiplapped joints.

Dolly Varden

Rabbeted-edge bevel siding.

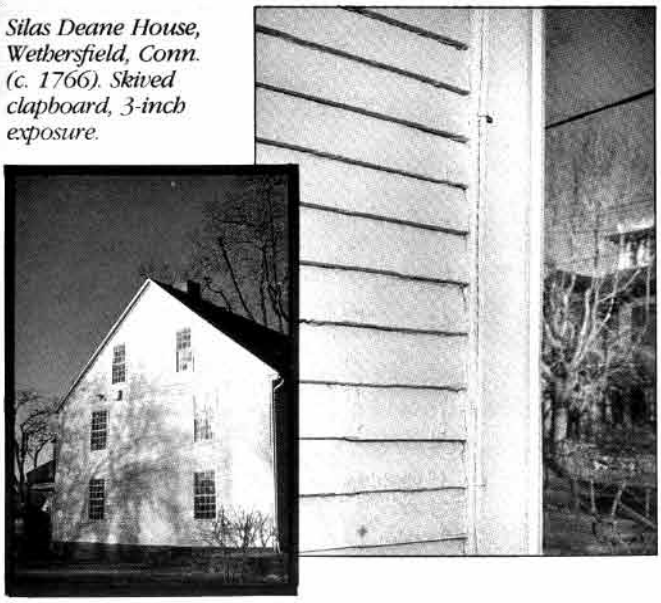
Anzac

Bevel siding shaped on the back to lie flat on studding.

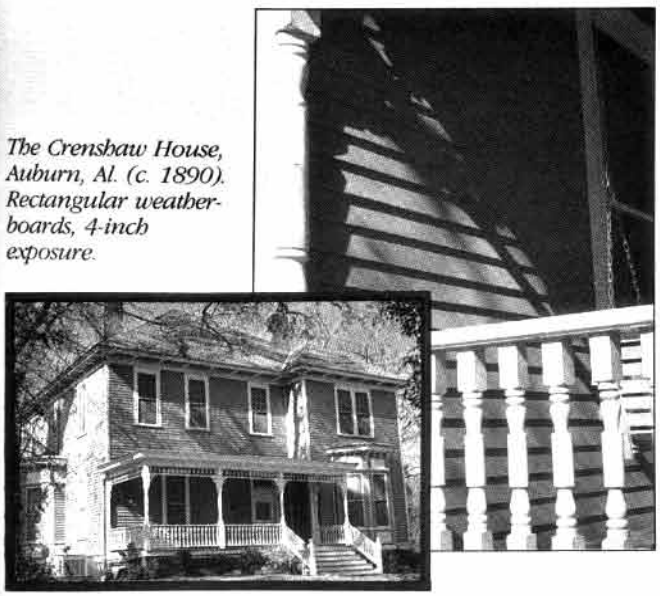
Bock, Gordon. "Clapboards Technical answers on horizontal-wood-siding types and details of their installation." *Old-House Journal*. May/June 1989. print

EXPOSURE SURVEY

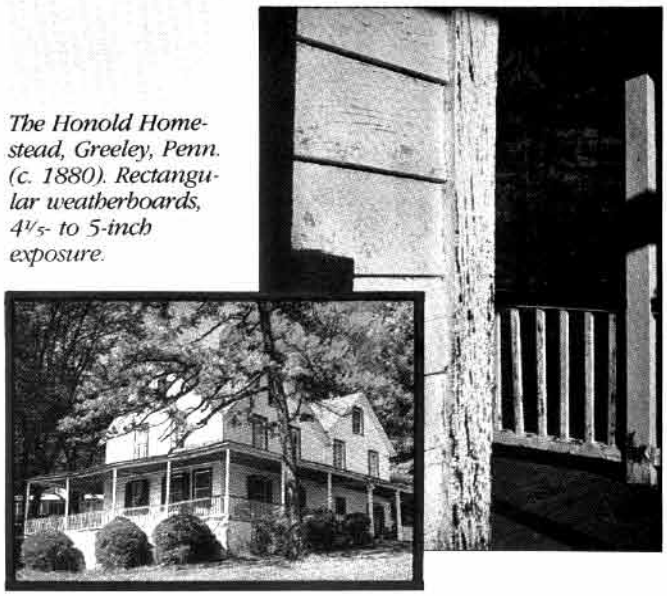
A quick tour with a ruler produces some interesting data.



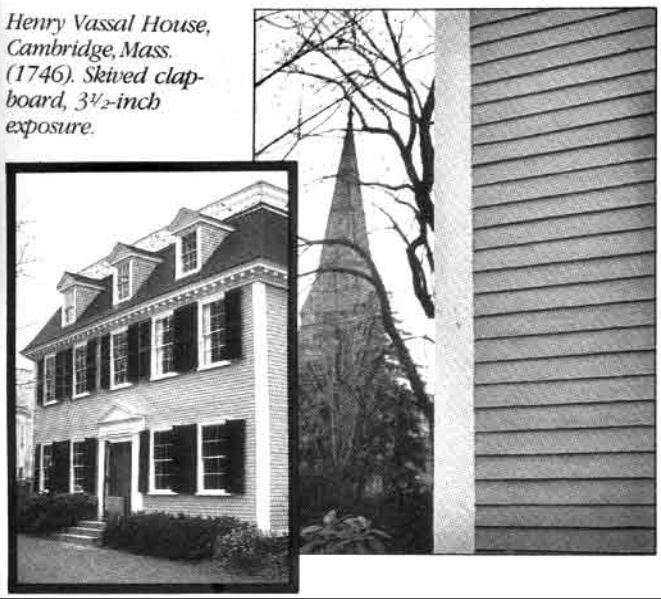
Silas Deane House, Wethersfield, Conn. (c. 1766). Skived clapboard, 3-inch exposure.



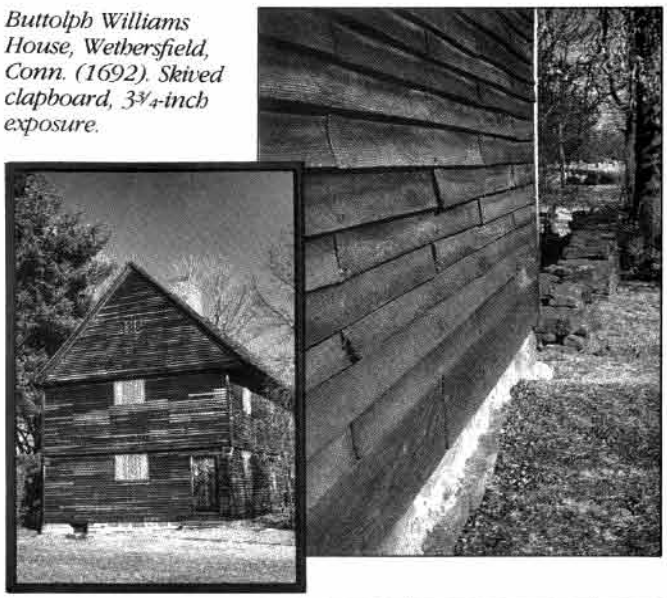
The Crenshaw House, Auburn, Al. (c. 1890). Rectangular weatherboards, 4-inch exposure.



The Honold Homestead, Greeley, Penn. (c. 1880). Rectangular weatherboards, 4⅕- to 5-inch exposure.



Henry Vassal House, Cambridge, Mass. (1746). Skived clapboard, 3½-inch exposure.



Buttolph Williams House, Wethersfield, Conn. (1692). Skived clapboard, 3¾-inch exposure.

Bock, Gordon. "Clapboards Technical answers on horizontal-wood-siding types and details of their installation." *Old-House Journal*. May/June 1989. print

Additional Resources

Books:

A Field Guide To American Houses, Virginia & Lee McAlester, Alfred A. Knopf, Inc., 1984

American Vernacular Buildings and Interiors 1870 - 1960, Herbert Gottfried and Jan Jennings, W. W. Norton & Co. Inc., 2009

Architecture Oregon Style, Rosalind Clark, Professional Book Center, Inc., 1983

Organizations:

Architectural Heritage Center
www.VisitAHC.org

City of Astoria
www.astoria.or.us

Clatsop Community College Historic Preservation Program
www.clatsopcc.edu

Clatsop County Historical Society
www.cumtux.org

Columbia-Pacific Preservation Guild
www.columbiapacificpreservation.org

Columbia River Maritime Museum
www.crmm.org

Lower Columbia Preservation Society
www.lcpsweb.org

National Park Service
www.nps.gov/tps

National Trust for Historic Preservation
www.preservationnation.org

Oregon State Historic Preservation Office
www.oregon.gov/OPRD/HCD/SHPO

Preserve America
www.preserveamerica.gov

Restore Oregon
www.restoreoregon.org

Technical Preservation Services
www.nps.gov/tps