

DESIGN GUIDELINES FOR ROOFS

HISTORICAL ARCHITECTURAL REVIEW BOARD North Wales Borough, Pennsylvania

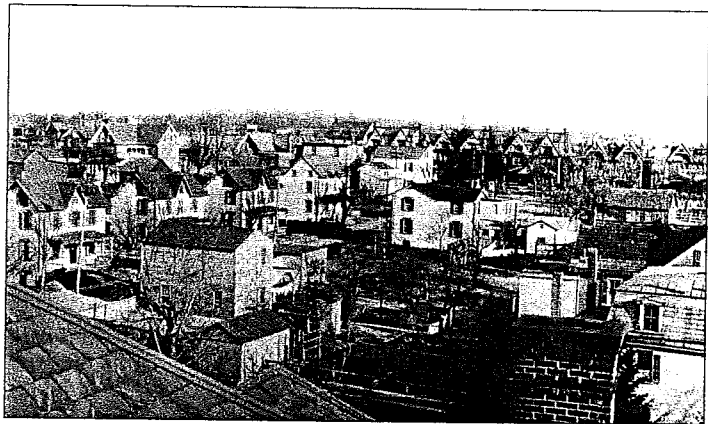
KEEP THESE PRINCIPLES IN MIND

You want your building to be structurally sound and attractive. As a property owner in the North Wales Borough Historic Preservation District you also want to maintain the historical and architectural heritage of your property and your community. You can succeed at both by using the least intrusive method when developing your improvement plans.

MAINTENANCE FIRST • Frequently the easiest, least expensive, and often overlooked way to protect and preserve your building is a regular maintenance plan. Identify and correct potential problems before they become extensive and expensive. Be on the look out for loose or deteriorating building components, signs of water leakage or moisture penetration, and loss of existing protective coatings. Spotting these issues early can avoid problems altogether, or keep them to a minimum.

STABILIZATION AND REPAIR • If you review the condition of your property regularly, you will be able to correct potential problems early through stabilization or repair work. Stabilization and repairs do not change the building's design and involve minimal work to existing materials. Become informed regarding appropriate repair methods and materials so as not to create new long-term problems in exchange for short-term solutions.

REPLACEMENT • When building components are determined too deteriorated to be repaired, consider replacing them using in-kind materials. Replacing a portion of a building element or detail with in-kind materials will retain the original appearance of your building. When replacement in-kind is determined unfeasible due to unavailability of materials or cost issues, use materials that are similar to the original, being sensitive to the original design and workmanship of your building.



Eastern Section of North Wales. Circa 1910.

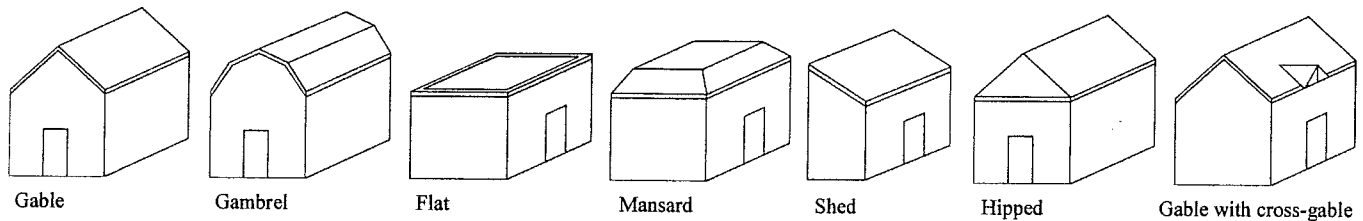
ALTERATION • Alterations change the historic design of your building and can impact its historic district setting. If you determine that alterations to your building are necessary due to a change in the building's use or living needs, again consider those that are the least intrusive. These include projects that are reversible, compatible with existing design elements and materials, and located on sides of the building not seen from public streets and sidewalks. Additionally, avoid alterations to your building that may not be historically accurate. Such alterations are not desirable as they often present a "false" history. Similar considerations should be given when embarking on a renovation project, using original design elements wherever possible for guidance.

ADDITION • Additions have the potential to impact a historic building and its historic district setting most significantly. Consider all other options carefully prior to planning an addition, such as reconfiguring the building's interior spaces. If an addition is determined necessary, strive to create a design that is least intrusive to the historic building and the historic district. Projects that are reversible and located on sides of the building not seen from public streets and sidewalks are recommended, as are additions that retain the historic building's form, profile, and design elements and materials. New additions should compliment the historic building. It is not necessary to match the original building. Additions that compliment, but not match, allow the original elements to be recognized and appreciated.

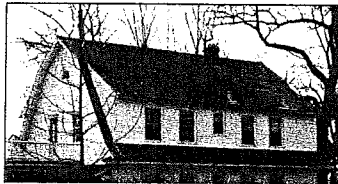
ROOFS provide your building with more than protection from the weather. Their design (including shape, materials, and functional and decorative elements) contributes to the appearance and style of your building. Therefore, both functional and aesthetic aspects of a roof need to be considered when undertaking a roof project.

ROOFS AND ASSOCIATED ELEMENTS

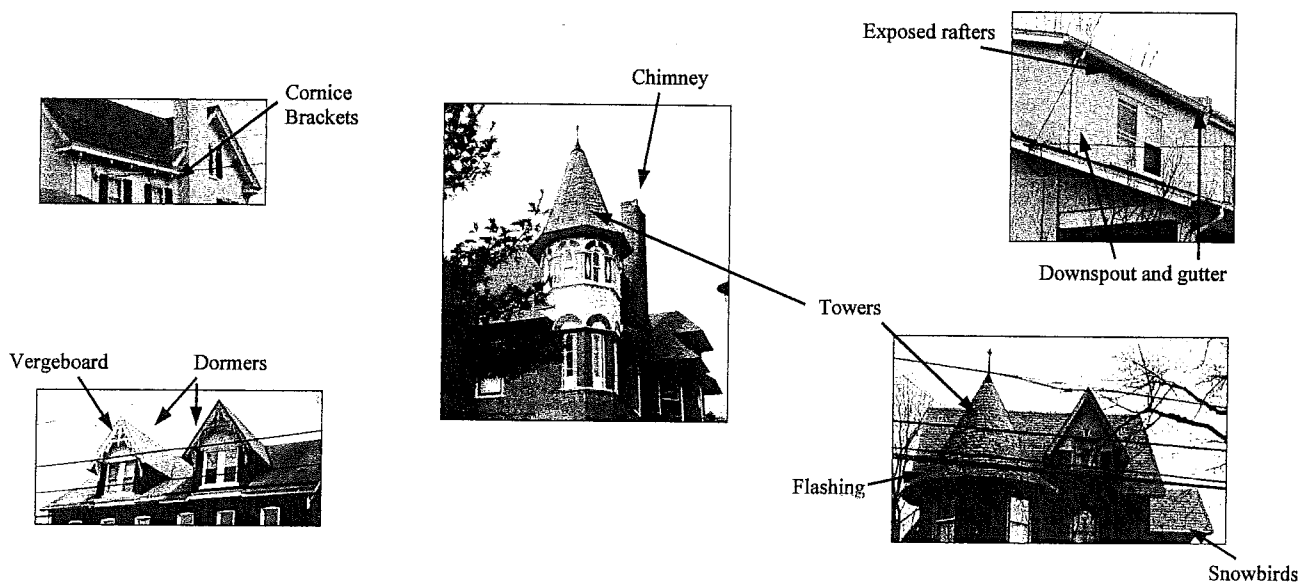
The shape of a roof is inherent to the appearance of a building. In some cases, a building's style can be determined by looking at its roofline, such as a Second Empire building with a mansard roof. The pitch, or degree a roof is sloped, can also hint at an architectural style, as well as determine an appropriate roof sheathing material. Typical roof shapes are pictured below.



Historic roofs in North Wales are covered with a variety of materials. Most historic buildings in the borough have sloped roofs which were originally clad in materials including wood shingles, slate shingles, and standing seam metal that provide roofs with distinct colors, textures, and patterns. Asphalt shingles became available in the early twentieth century, although most existing examples are modern. Flat-roofed buildings such as row homes likely were covered with built-up hot tar or roll roofing.



There are a number of functional features and decorative elements associated with roofs that are considered in this bulletin.



MAINTENANCE AND REPAIR OF DETERIORATED ROOF COMPONENTS

The HARB encourages:

- on-going review and regular maintenance of existing roof components. Clean gutters and downspouts at least twice a year. Wood elements such as vergeboards should be routinely painted. Periodically inspect attic spaces for minor leaks after it rains to become alert to minor roof problems and avoid extensive interior water damage and roof repairs.
- immediate repair of individual deteriorated roof components. Repairing common minor problems can be as simple as reattaching or replacing shingle fasteners, installing sheet metal under damaged shingles, filling holes or splits in shingles (not metal) with roofing cement, refastening and re-soldering sheet metal joints, and repainting sheet metal roofs. Moss and fungi problems can be solved by applying fungicide, installing zinc strips, and exposing the roof to additional sunlight.

The HARB discourages:

- complete replacement of a roof component *unless* warranted due to the extent of deterioration or loss.
- complete replacement of a roof *unless* warranted due to the extent of deteriorated or missing components.

REPLACING A ROOF OR ROOF COMPONENTS

If the replacement of a roof or roof component is deemed necessary, choices can be made that would alleviate the loss of historic elements or materials.

The HARB encourages:

- replacing individual shingles or sheets of metal with in-kind materials.
- re-roofing with materials that match the original in size, shape, texture, pattern, color, and thickness. If replacing a previous replacement, original roofing materials can be determined through knowledgeable investigation in a building's attic of older roofing materials, roof framing, and roof construction techniques. Different types of roofing materials require different types of roof construction. Historic photographs and neighboring similar buildings with historic roofs can also provide clues to a building's original roof materials.
- re-roofing with natural materials. Alternate synthetic materials should replicate physical and aesthetic variations inherent in natural materials.
- retaining the historic roof shape and slope, and all existing functional and decorative roof elements.

The HARB discourages:

- replacing roof materials with materials that are different from the original in size, shape, texture, pattern, color, and thickness.
- changing the roof shape and slope.
- removing existing functional or decorative roof elements.
- installing modern appendages (such as television antennas and cable dishes) to front-facing roof slopes.
- installing functional or decorative roof elements that are historically inappropriate to the building. When installing additional elements (such as downspouts), match them to the existing.

ADDITIONAL ROOF ELEMENTS

The many functional and decorative elements that may be found on any given building's roof are essential to the overall look of a roof and building.

The HARB encourages:

- retaining existing elements.
- choosing half-round gutters and round or rectangular downspouts over corrugated versions if replacement is necessary.
- choosing long-lasting materials for replacement of flashing and drainage systems, such as copper and galvanized or terne coated steel.

The HARB discourages:

- removal of existing elements, particularly without replacement in-kind if originals are deteriorated beyond repair.
- removing existing masonry chimneys.

DORMERS AND SKYLIGHTS

Typically desired to maximize light and air circulation, dormers and skylights contribute significantly to the appearance of a building's roof. Removing or adding them should be considered carefully.

The HARB encourages:

- retaining existing dormers. Use established guidelines to care for dormer windows.
- installing flat-type skylights, preferably on roof slopes that can not be seen from the public street.

The HARB discourages:

- adding new dormers that are inconsistent in style, and incompatible in proportion and construction materials with the building.
- installing "bubble" skylights.

TIPS FOR ADDITIONS

The recurrence of similar building heights and roof shapes in a historic district contribute to the neighborhood's appearance and character. Strive to keep the roof of an addition lower than those of the historic core and surrounding buildings so they aren't overwhelmed visually. Upper-story additions should respect the scale and proportion of neighboring buildings. Mimic existing roof shapes with similar pitch. Choose roofing materials of similar shape and color as the historic core and its neighbors.

TIPS FOR SAFE AND SUCCESSFUL ROOF PROJECTS

Roof projects can be complex and potentially dangerous. The HARB recommends using qualified professionals knowledgeable about your type of roof and roofing material.

This publication was initiated and overseen by North Wales Borough and made possible through a grant from the Bureau for Historic Preservation of the Pennsylvania Historical and Museum Commission.

This project has been financed in part with Federal funds from the National Park Service, Department of the Interior. However, the contents and opinions do not necessarily reflect the views or policies of the Department of the Interior.

This program receives 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 the Interior prohibits discrimination on the basis of race, color, national origin, disability or age in federally assisted programs. If you believe that 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 Street, N.W.; Washington, DC 20240.

Prepared by Laura S. Black, Architectural Historian, of Cultural Heritage Research Services, Inc. (CHRS, Inc).
Historic photographs provided by Philip Ruth of CHRS, Inc.