Roof Treatment Guidelines

Designated Landmarks and Historic/Landmark Districts

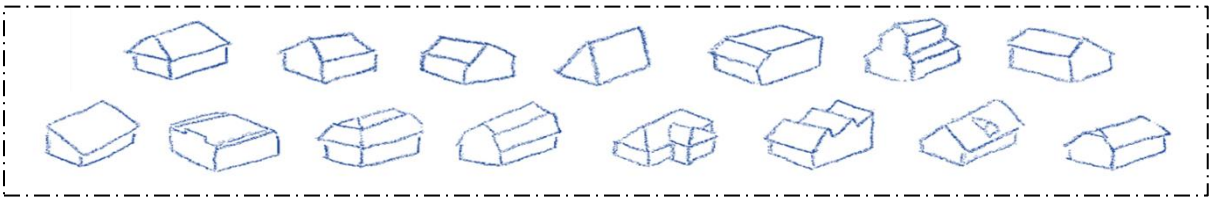
The Cleveland Landmarks Commission uses the Secretary of the Interior's Standards for Rehabilitation to review proposed changes to Designated Cleveland Landmarked properties.

Application/Review Process

Roof replacement projects include review through the Landmarks Commission office and a permit through the Cleveland Department of Building and Housing.

Roof replacement with the same architectural shingles, flat roofing material, or upgraded materials in a similar color/shape/size may be reviewed administratively by Landmarks Commission staff for appropriateness. Included in the review, Landmarks Commission staff will also ask for information on new venting, flashing, gutters, downspouts, and changes to existing chimney or piping on the roof.

Replacing original slate roofs with slate, synthetic slate, or a comparable slate-appearing architectural asphalt shingle may be reviewed administratively by Landmarks Commission staff for appropriateness. Replacing original tile or wood shake/shingle roofs with asphalt shingles or alternate materials will require approval through the Landmarks Commission design review process. Replacing an existing residential roof of any type with a new metal roof will require review through the Landmarks Commission design review process and is a not currently a recommended treatment for existing homes and buildings that are individually designated Cleveland Landmarks or located in designated Landmark districts.



Roof Types/Shapes

Roofs are an important part to any building and an integral part of protecting and preserving a structure. The variety of roof types, styles, and materials historically depending on the availability of materials, environment, cost, and level of construction ability of the builders. Many architectural styles have specific or distinctive roofing associated with them which should be recognized and respected when embarking on a roof repair or replacement project.

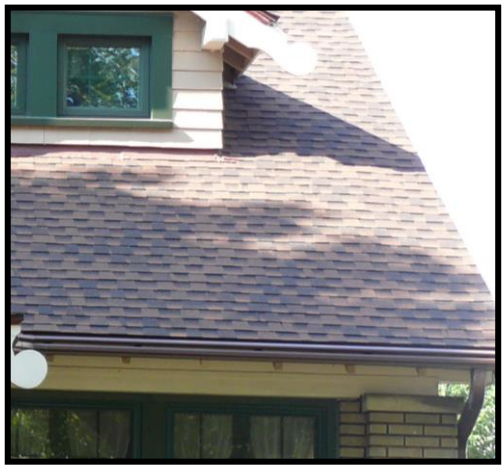
Roof Features

Roofs may also include features like dormers, cupolas, chimneys, cresting, skylights, and vents. Retaining original elements while updating is important. Replacing or changing original decorative elements should only be completed with documentation or evidence that the change is appropriate for the architectural style of the home, will not damage or impact other distinctive features of the home, and fit within the district or neighborhood context.

Roofing Materials

Materials that cover a home are not always clear or common. It is important to be conscious of the materials when assessing a roof condition, repairing, or cleaning as all roof types and materials require proper maintenance. It is important to know the strength of the rafters and how much weight

a building can withstand when looking into roofing materials; the additional weight of layers or introducing new materials can lead to damage of the entire structure.



Asphalt Shingle is the most commonly used residential roofing material. Comprised of a fiberglass mat, asphalt, granules, and other elements it was created as a roofing material in the 20th century as an alternative roofing material. An asphalt shingle roof may look similar to an asbestos fiber cement roof, and it is important to have your home assessed for asbestos hazards if the roof material is not identifiable and is in disrepair. Today asphalt shingles are the material usually thought of when referring to a roof. Asphalt shingles come in three main categories: premium/designer shingles, architectural/dimensional shingles, and 3-Tab shingles. With correct installation and proper maintenance, an asphalt shingle roof could last between 15-45 years. 3-Tab shingles have a much shorter lifespan and are not a recommended roofing material. Asphalt shingle can come in a variety of colors and, with appropriate shape and color, can be used as a less-expensive alternative to some slate or wood shake/shingle roofs.

Slate roofs were an early roofing option in the United States, either imported or sourced from a quarry, and used well into the 20th century. The slate provided fire protection, durability, longevity, and was popular in urban and rural areas. The variation in slate provides a range of colors and shapes for slate roofs and with proper maintenance can last 50 to 150 years. Slate is a hard material that should be installed or removed with care as the slate pieces can be very brittle. Slate roofs are very heavy and there are some homes that have asphalt siding installed overtop of slate instead of having the slate removed. Covering the slate leads to a greatly reduced lifespan for the slate and for the architectural shingles. Options for replacement can include repairing with new slate, replacing with a synthetic slate option, or replacing with an asphalt shingle option that mimics the appearance of slate. Synthetic slate and slate-appearing architectural asphalt shingles come in a variety of shapes and colors and allow for versatility and provide options if the cost for complete slate replacement is not economically feasible.

Clay or Concrete Tile can be found the world over in residences, businesses, and sacred places and can date back to the Neolithic period in Europe and Asia. Ohio, due to its large amount of clay deposits, was historically a large producer of roofing tile throughout the 19th century. Tile roofs fell out of favor for a time in the late 19th and early 20th century due to more affordable options but experienced a rebirth in the popularity of revival style architecture in the United States. Clay tile allowed for a wide range of sizes and shapes to be produced and alternatives to clay, in the form of some metal tiles and cement tiles, brought the same variety and began to appear in the mid-19th century. A properly maintained clay tile or cement tile roof can last upwards of 150-200 years. Many times, the fastening system or roof structure would fail before the tiles themselves would be in need of replacement, in

which case the tiles can be removed while the repairs are completed and then re-laid. Tiles should be assessed and damaged tiles removed and replaced to not compromise the entire roof system. Many times, the tile pattern and color is the most prominent feature of a building and should be retained. Substitute or synthetic tiles may be an acceptable option if the new material can appropriately match the appearance of the documented design.

Wood Shake or Shingles were used quite often in the 19th century for homes and would have varied in size, shape, and color depending on the materials available. Most of the original roofs were made from locally sourced wood. Wood shingles are different and will have a different appearance than wood shake; wood shingles have more of a uniform look due to their manufacturing process while wood shake is highly textured. It is important to know the material and wood species before working to repair or restore a wood shake or wood shingle roof. Replacement of an original wood shake or shingle roof should be done with care as the roof material has a lifespan of around 30-40 years. Options for replacement would include replacing with new wood materials or the use of a synthetic roof material that would mimic the shape, size, and color of a wood roof. Replacing with asphalt shingle or another roofing material would not be recommended without proper review.

Metal can be found most commonly as flashing, decoration, or the roofing for bay windows, steeples, or steeply-pitched sections of a roof. Early metal roofs were made from lead and copper with zinc and iron as options in the 19th century and tin, terne, steel, aluminum, and galvanized metal/steel appearing in the 19th and 20th centuries. Depending on the material and maintenance, a metal roof could last between 30-75 years. The use of metal roofing would oftentimes be informed by the roof pitch or shape as an alternative for other materials. Metal roofs were found in a variety of urban and rural environments, but were not commonly used as the only roof material on residential properties in the Cleveland area. They were often found on churches, industrial buildings, secondary structures, or in more rural areas. The versatility and lightweight nature of metal roofs makes it a popular option for modern new construction projects. The replacement of a metal roof should be taken with care as the style and installation is an important part of the appearance as well as the material.

Flat roofs have developed over time to the commonly found ethylene propylene diene terpolymer (EPDM), modified bitumen asphalt, built-up roofs (BUR), single-ply (PVC or TPO), and spray polyurethane foam used today. Most flat roof options have a lifetime of 10-40 years with proper maintenance and appropriate installation. The best way to determine materials for replacing or repairing a flat roof is to look at the wear or any damage to the existing roof, use of the roof and structural needs, and environment. Flat roof materials should not be visible from the street or obscure decorative elements of a building. A flat roof is a distinctive feature on buildings and the

addition of rooftop decks or balconies should be completed with care to not have the new addition stand out or, preferably, not be visible from the street.

Recommended Practices

For roof repair or replacement projects

- Conduct yearly maintenance to keep a roof secure, watertight, and clear of debris
- Repair a roof with replacement of the same or compatible substitute materials
- Replace a roof only if repair of deteriorated or missing historic components are not available
- Replace a roof using physical evidence as a model for the new roof and retain or replace missing elements
- Color, shape, and size of existing/original shingles should be used to inform the proposed replacement materials
- Important roof system elements such as vents, gutters, downspouts, flashing, chimneys should be repaired or replaced with compatible and appropriate alternatives
- Retain or replace features such as dormers, awnings, and porches using physical or documented evidence or include a new design that is compatible with the existing building
- Rooftop additions such as mechanical systems, skylights, stair/elevator towers, or decks should be installed to be minimally visible on the site and not damage or obscure character defining features
- Research options and recycle roof materials if they have been removed
- Review and document the economic and construction requirements for repairing and replacing a specialty roofing system with a modern system
- Refer to the Cleveland Landmarks Commission Solar Panel Guidelines for the installation of solar panel systems for Cleveland Landmarks and in Landmark Districts

Further Information

Assistance on appropriate maintenance for roof replacement and information on best practices for repair and replacement are available through a variety of sources.

- Secretary of the Interior's Standards for Rehabilitation
- National Park Service Preservation Briefs
    - The Use of Substitute Materials on Historic Building Exteriors
    - The Repair, Replacement, and Maintenance of Historic Slate Roofs
    - The Preservation and Repair of Historic Clay Tile Roofs
    - Roofing for Historic Buildings
    - Maintaining the Exterior of Small and Medium Size Historic Buildings