

November 26, 2023

Since this summer, I have been reading, researching, and viewing synthetic roofs of all types that are used in historic and non-historic areas. Following the HPC tour on November 18, I am confident in making statements regarding the use of synthetic roofs in Lake Forest at the present time. The City of Lake Forest and the Historic Preservation Commission (HPC) should engage in a regular due diligence review process on a semi-annual or annual review of synthetic material that might be appropriate for use on the houses in the historic districts. As of now, in my opinion, only natural materials or commonly accepted materials should be allowed. The reasons are as follows:

I. Standards: The Secretary of the Interior clearly defines criteria (in Standard 6 for Rehabilitation/ Standard 15 for Lake Forest) and that is “Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in **design, color, texture, and where possible, materials.**” The Lake Forest HPC should continue to adhere to this standard as closely as possible.

II. Authenticity:

If Lake Forest’s HPC allows synthetic material replacements of the following:

1. wood plinths to be made of polymers,
2. columns to be replicated in fiberglass,
3. capitals to be molded in vinyl,
4. front doors to be replaced with metals,
5. porches to made of composites,
6. siding to be constructed of fly-ash materials and polymers,
7. and roofing materials to be replaced with plastics,

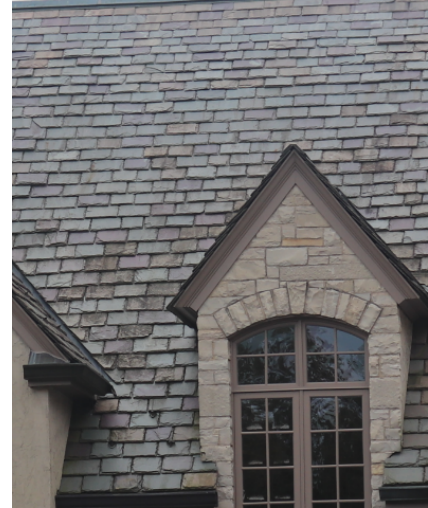
then at what point does the historic structure lose its authenticity? At what point does the original structure devolve into a Disneyesque caricature of itself?

III. Artificial Materials Texture and Finish.

I agree that the City and HPC should not discuss individual brands, but rather they should review types of materials.

First, I ask everyone to look at the slate roofs now in Lake Forest, many reaching their 100-year-old anniversaries; others, very new.

There are three types of slate roofs: standard, textured, and graduated. The natural slate is easily identified by its rich design, color, and texture. An example of these is shown in the Deerpath home where textured, multi-colored and graduated slates are displayed together.



Example #1: Note the multi-colors, varying thicknesses, varying widths, and different reveals as the slates go from large to smaller towards the roof ridgeline, making the structure look taller, which is the intended result.

An additional example is that of the west wing of the Church of the Holy Spirit. The design, color, and texture relate and the roof results in an appealing roof effect.



Example #2 West roof of Church of the Holy Spirit. This roof is natural slate that is multi-colored and textured.

However, the east roof portion of the Church of the Holy Spirit, is an example of a poor artificial slate application. The building manager explained to me that the roof structure was deemed not sufficient to support the weight of a full slate roof. The Church installed a synthetic roof to save weight not more than 20 years ago. Notice its curling of the shingles, the fading colors—the red and purples have changed hues, and the lack of design texture. The manager told me that the curling slates are cause for concern regarding future leaks.



Example #3 – East portion of the Church of the Holy Spirit

Even though the synthetic slate materials have improved these past 20 years, I did not see on our tour one synthetic slate roof that matched the quality or interest of the natural slate used in examples #1 and #2.

Cedar roofing: The same is true with the Cedar roofing, this time displayed on a Woodland Road home. While different from slate roofs in texture and color applications, natural Cedar roofs provide a pleasing and regular roof effect as shown in Example #4.



Example #4: Woodland Road Natural Cedar Roof

The synthetic roof is noticeably incorrect as shown in the example on Suffolk where the grain of the roof shingles has artificial and unnatural striations, yielding an obviously unnatural effect. (shown in Example #5)



Example #5: Synthetic Cedar Roof

IV. Artificial Material Qualities. The use of artificial materials is not just about the artificial look, but rather must include questions about longevity, quality, and other attributes.

The City and HPC should ask for particulars in addition to the look of the roof. These questions that should be asked and answered by the petitioner have to do with the ASTM testing results, longevity, durability, color retention. This is about the materials used and not the brands that are promoted.

Questions in Preservation Brief 16 provide an ample list of inquiries:

Roofing from *Preservation Briefs 16*:

Historic Material: wood shingle, slate shingle, asbestos shingle, clay tile, concrete tile, metal  
Potential substitutes: fiber cement, mineral/polymer composite, wood fiber/polymer composite, pre-cast concrete, metal

Questions to ask about the replacement material:

- What size and shapes are available?
- What are color choices?
- What is the color stability of the new material, and how will it age/weather? Please give statistics.
- What is the impact resistance?
- What is its flame spread rating?
- What are the installation requirements of the new material?
- Can the feature being replaced be custom-produced if ready-made ones of the new material are not an accurate match?
- What is the expected lifespan and/or warranty?

John Sandor, David Trayte, et al. "Preservation Briefs 16," *National Park Service*, September 2023, 14.

Here are some additional questions that I've developed:

- Who has certified the testing of this material?
- What ASTM standard does it meet?
- What type of backing does this need before it is installed?
- What historic districts have approved it and what districts have denied its use?

V. My final point is that the City and the HPC should not be swayed by Landmarks Illinois or by SHPO at the State level by their acceptance of artificial materials. Local standards should always be tighter and more impactful than the state's or national's levels, as the HPC is charged with protecting our City and our architecture. Many cities that have historic districts follow their own rules for their own jurisdictions. A few are Nantucket, Boston, Santa Barbara, Charleston, and many others. Boston is a good example of how it has reviewed and altered its acceptance of artificial materials. Boston originally accepted some artificial materials—artificial slate, composite flooring, and vinyl—in 2009. After much review of applied artificial materials in their districts, Boston rescinded the approvals in 2019.

With regard to the landmarked house on Washington Road, where Landmarks Illinois accepted a synthetic roof as part of its easement review process without consulting the City, Landmarks Illinois should have reached out to the Staff at the City before regarding its approval of synthetic wood roofs.

Further, when I reached out to Anthony Rubano, Deputy State Historic Preservation Office (SHPO), he stated that the State reviews artificial materials on a case-by-case basis. Rubano takes a product-based approach to each application. Rather than adopt a materials-wide approach, they review the product in each application. The City of Lake Forest does not have the staff to handle this case by case. It's far too time consuming. Plus if someone is allowed the acceptance on one house, and another petitioner is denied acceptance in another part of the city, there could be claim of unequal treatment between petitioners. The answer is a materials-wide approach as our City Staff has discussed with the HPC and the petitioners.

While the materials have improved over the past few years, manufacturers haven't developed the quality level necessary for our historic districts. I recommend that the City Staff and the HPC continue their regular evaluations and study the situation further. I recommend the City withhold an approval until the materials are within the HPC guidelines.

Jan Gibson