

Professional Services

- + Roof consulting
- + Construction documentation and administration
- + Condition assessment reports
- + Leak investigations
- + Cost estimating
- + Hands-on surveys and test probes
- + Historic building restoration and rehabilitation
- + Facilities maintenance plans
- + Materials analysis and selection
- + Preservation planning

Steep-Slope Roofing

- + Slate
- + Wood shingles
- + Clay tile
- + Standing seam and batten seam copper
- + Asphalt shingles
- + Flashings
- + Rainwater conduction systems

Low-Slope Roofing

- + Flat seam copper
- + Built-up roofing
- + Modified bitumen systems
- + EPDM
- + Flashings
- + Roof drainage

Building Envelope

- + Exterior masonry
- + Windows and doors
- + Stained and leaded glass
- + Architectural woodwork
- + Ornamental ironwork
- + Steeples, parapets, and cornices

Competence

- + Expertise in roofing technology and building pathology
- + Holistic approach to identifying and treating deterioration
- + Hands-on, up-close surveys from ladders and high reach equipment
- + Principal involvement in all projects
- + Attention to detail
- + Close client collaboration
- + Frequent site visits during construction to ensure quality
- + Continuously refining our understanding of building technologies

**SOLUTIONS FOR THE ENTIRE
BUILDING ENVELOPE**

Availability Issues for Architectural Sheet Metal

Recently, several types of sheet metal commonly used for roofing have become unavailable. The economy is partially to blame for causing some long-established manufacturers to close their doors. Material problems have also taken their toll. In light of the diminished selection of sheet metal for roofing, it is important to understand the options that remain.

Follansbee Steel, producers of TCS II (stainless steel coated with a proprietary zinc/tin alloy), ceased production of new material in January 2012 citing the condition of the economy as the culprit. Although it appears that Follansbee may still be in the market for a buyer, there has been no news yet of a manufacturing resurrection. In addition to TCS II, Follansbee applied their ZT@ alloy coating to sheet copper manufactured by Revere Copper Products, Inc. to create FreedomGray™, a product Revere offers as an alternative to lead coated copper. As a result of Follansbee's closing, FreedomGray™ is unavailable, at least temporarily. This was a second blow for Revere, who ceased fabrication of their Evergreen® pre-patinated copper a little over a year ago due to a sudden manufacturing complication. At this time, there is no word about when, or if, production of FreedomGray™ or Evergreen® will resume. Hussey Copper, a domestic manufacturer of copper products and one of the few still producing lead coated copper, declared bankruptcy in September 2011. Hussey Copper was purchased by a private equity firm in December 2011 and seems to be producing at this time, but it is unclear what long-term impact the new ownership will have on Hussey's manufacturing of architectural sheet metal.

What does all of this mean for roofing? Copper is still being manufactured and remains a durable and abundantly available material for roofing and flashings. However, in cases where a

gray-colored metal must be used, for instance to eliminate the risk of green staining on light colored masonry below the roof, the options are more limited now. Lead coated copper is quickly falling out of favor due to the environmental impact and, while it can still be found, is not as readily available as it once was. Stainless steel is an excellent choice in terms of corrosion resistance and longevity, but is more difficult to form and solder than copper. In addition, even with a micro-embossed texture or 2D finish, stainless steel is still somewhat shiny and may not be appropriate for all buildings or installations. In a pinch, copper can be tinned manually by applying a thin coat of solder to the surface, but this is a laborious process which is impractical if a large quantity of metal is required. Levine & Company recently discovered that tin coated stainless steel is being manufactured by a small company in Westtown, Pennsylvania. At first blush, the product offers the durability of stainless steel and a weathered appearance similar to that of lead coated copper, but there are many unknowns about the material as it is not widely used for architectural purposes in the United States.

If pre-patinated copper is essential, there are few alternatives to take the place of Revere's Evergreen® copper. Numerous products are available which can be brush or spray applied to sheet copper to induce patination. Beware, however, that artificial patination can end up looking, well, artificial. Research, test panels, careful application, and a healthy dose of vigilance are recommended if this method is used. A factory pre-patinated copper product is available from another manufacturer (and there may be others), but its peculiar color combined with the manufacturer's reluctance to share any information about where the copper comes from or how the product is made seems questionable.



FreedomGray™ coping cap installed over cast stone coping stones at First Presbyterian Church in Haddonfield, New Jersey.



Samples of pre-patinated copper products: SMC-Oxidized Copper Patina 3000 by Unimet Metal Supply (left) and Evergreen® by Revere Copper (right).

FIRST PLACE, 2012 RCI DOCUMENT COMPETITION

Earlier this year, Levine & Company was awarded First Place in the RCI, Inc. (The Institute of Roofing, Waterproofing, & Building Envelope Professionals) document competition...twice! Levine & Company's Exterior Envelope Condition Assessment Report for Bryn Mawr Presbyterian Church in Bryn Mawr, Pennsylvania took First Place in the Report category. Construction documents prepared by Levine & Company for roof repair and replacement at First Presbyterian Church in Haddonfield, New Jersey took First Place in the Large Projects category. The awards were presented at RCI's 27th International Convention and Trade Show in Dallas, Texas in March. For more information about these and other projects, visit Levine & Company's website at www.levineco.net.



Ridgewalker News



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