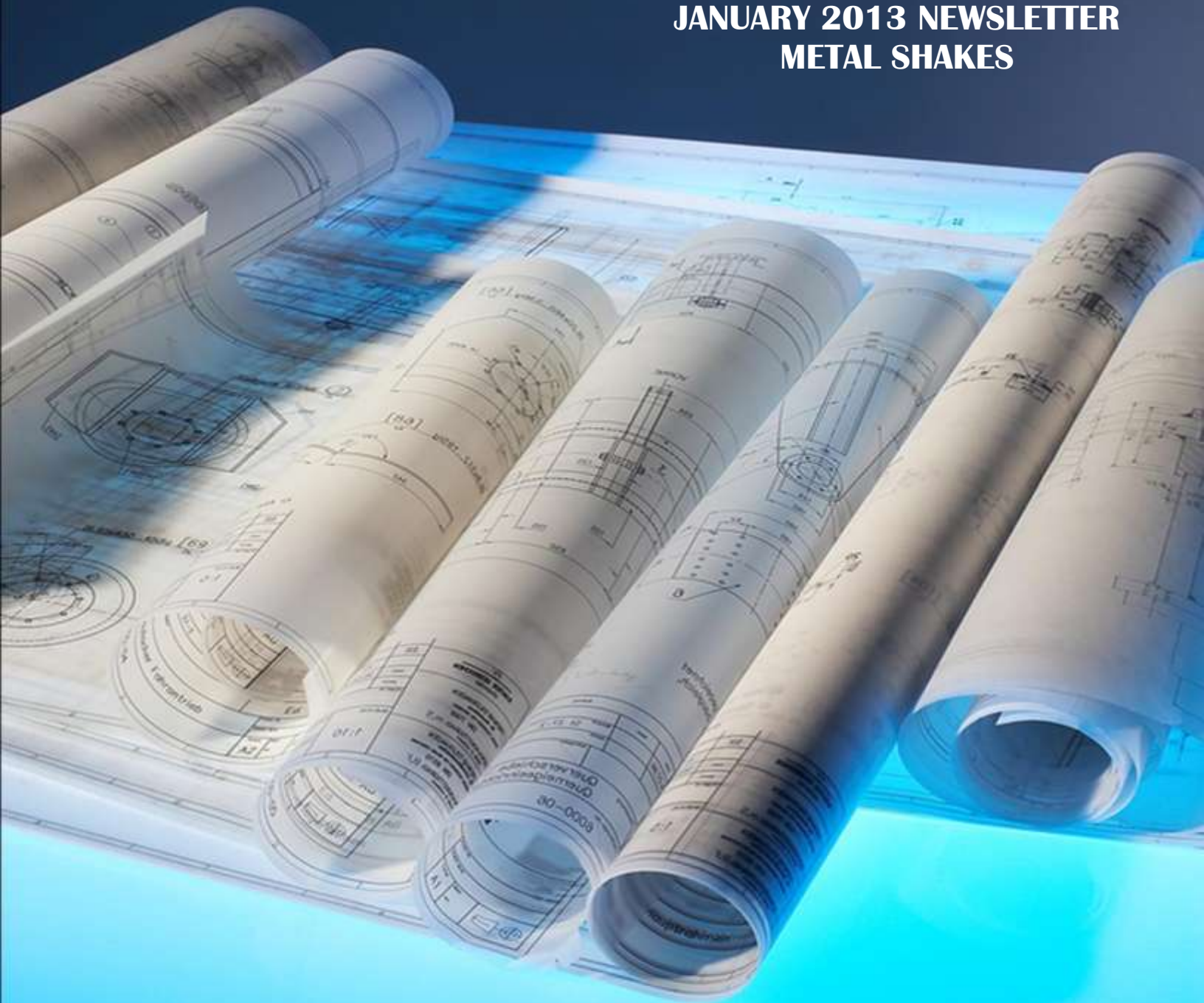


Scott D. Bonk & Associates, Inc.

Roofing and Waterproofing Consultants
Owner Agent Services

**JANUARY 2013 NEWSLETTER
METAL SHAKES**



**11239 Paddington Terrace
Fort Myers, Florida 33913**

**Telephone (239) 768-3654 ♦ (561) 653-9140 ♦ Toll Free (888) 995-0661 ♦ Fax (239-768-1064
www.ScottBonk.com**



METAL SHAKES

OVERVIEW

Metal shakes are produced by several manufacturers and are typically manufactured from either steel or aluminum. The profile (aesthetic look and design) of the metal shake varies with each manufacturer and typically mirrors a wood shake profile. One manufacturer produces and provides a foam insert which is placed beneath the metal shake to eliminate denting of the shake by simple foot traffic. Several colors are available and the paint type is usually a baked-on Kynar product which is applied in a factory environment. In addition to the metal itself the paint is typically warranted against fading and some manufacturers also include the labor installation.

CRITERIA

Metal shakes are restricted to being attached to specific roof slopes by design and Building Code compliance. However, special engineering can be created for low slope attachments providing local Building Code Officials approve the methods. Manufacturers require specific flashings where the metal shakes interface with typical conditions such as the eave, rake, ridge, valley, vertical sloped walls, vertical head walls, soil stack penetrations, metal vent penetrations, skylights, etc. An underlayment is required beneath the metal shakes and acts as a secondary waterproofing element. In the event that water penetrates the metal shakes the underlayment is designed to keep the building in a watertight condition.

TESTING

The first question to be asked is: ***Can the selected metal shake be installed in my State and local area?*** Building codes require specific information about roofing systems and product test data. The State of Florida requires an approval for each roofing component and roofing system installed in the State. Manufacturers can have their products and assemblies tested for wind criteria depicted in the appropriate Building Code for installation and sale of their products.

THE INSTALLATION

For Building Code compliance the installation of the metal shakes must be centered around the wind uplift calculations for the project. Test results are created for manufacturers and attachment is recommended to be a non-corrosive fastener in order to eliminate rusting.

Following complete re-nailing of the roof deck on an occupied building, the underlayment is installed over the roof deck prior to the installation of the metal flashings and metal shakes. The underlayment is typically installed as a self-adhered product and can be applied directly to the roof deck or over a mechanically fastened felt. Building Code requirements vary.

In the majority of installations metal flashings are installed prior to the installation of the metal shakes. However at a vertical headwall condition a metal flashing is required over top of the metal shake. Metal shakes are typically manufactured in three foot (3') increments and the quantity of fasteners per three foot (3') length is based on the results of the wind uplift calculations.

During the installation of all metal components caution must be exercised to avoid scratching the paint. Rusting can be expected on steel components, however rust will not occur on non-corrosive metal such as aluminum, copper, etc. Rust will also occur at cut edges of all steel, including the flashings, and painting of all cut edges is recommended following the cutting process.

AESTHETICS

The architectural look of the metal shakes can be very appealing resulting from the proper installation of both the metal shakes and the metal flashings. The paint finish of the metal flashings should be the same as or close as possible to the paint finish of the metal shakes in order to eliminate a color contrast. Should cladding such as stucco or siding be located above the metal shake roofing system the cladding is recommended to be properly counter-flashed with properly designed and installed metal flashings. The cladding is recommended to be repaired, replaced or restored prior to the installation of the metal shakes, which includes installing designed metal flashings that interface with the cladding and metal shakes. This concept eliminates damage to the metal shakes and flashings from foot traffic. Metal shakes installed without a foam insert are subject to denting from foot traffic causing unsightly shakes and damage to the paint finish.

COSTS

The cost of the metal shake installation is dictated by the building type, roof slope, and roof conditions such as quantity of penetrations, roof access, metal type, metal flashing type and quantity, installation requirements, paint finish, etc. In addition, building cladding located above the metal shake roofing system will increase costs when properly designed, specified and installed. These items must be considered when considering pricing for a metal shake roofing system.

CONCLUSION

The installation of a properly specified, designed and installed metal shake roofing system can be very appealing and add an upgraded aesthetic value to the building. The designer and specification writer must have knowledge of all building components related to the roofing system, including cladding that may be installed above the finished roofing system. The attachment of the metal shakes must be compliant with the appropriate Building Code to include all related components and all components must be installed by competent, qualified craftsmen in order to result in an aesthetically pleasing installation.

The roof replacement process can be a very smooth endeavor, however creating the experienced team is the key for success. The experienced Consultant will help create the team as follows:

- | | |
|--------|---|
| First | The project must be thoroughly reviewed, designed and specified. |
| Second | Pricing must be obtained from qualified contractors with the ability to perform on the project and comply with all specified items and bidding requirements. |
| Third | The selected contractor becomes a part of the team that includes the Owner and Consultant. |
| Fourth | The project commences and includes onsite inspections to confirm contractor compliance. |
| Fifth | A Punch List and Final Inspection are implemented confirming that the installation is compliant with the Design and Specifications and the project is complete. |
| Sixth | Final documents to include the specified Warranties, Inspection Reports, Documenting Photography, Final Lien Waivers and Final Payment Requests are delivered. |

The qualified Consultant will guide you through the process eliminating your concern about the project.

SCOTT D. BONK AND ASSOCIATES INC

Scott D. Bonk and Associates Inc. has over thirty-six (36) years of experience in the roofing and waterproofing industry in all types of roofing systems. Completed projects extend from Sacramento, California to Paradise Island, Nassau, Bahamas. It will be our pleasure to meet with you to discuss your project and how we can help you. Contact our office at (239) 768-3654 and/or visit our website at www.scottbonk.com to learn more information about our professional services.



FOR MORE INFORMATION, CONTACT:

SCOTT D. BONK AND ASSOCIATES, INC.

11239 Paddington Terrace
Fort Myers, Florida 33913
Main Office: (239) 768-3654
Toll Free: (888) 995-0661
Fax: (239) 768-1064
Email: Scott@scottbonk.com
www.scottbonk.com

“BY ENGAGING OUR SERVICES YOU WILL RECEIVE THE QUALITY THAT YOU EXPECT
AND THE SERVICE THAT YOU DESERVE. ”