

Case Study: The largest privately-owned vegetative roof system in KY



Description: The six-story American Life & Accident Insurance Co. building was designed by well-known German architect Ludwig Mies van der Rohe who died during its construction. Considered his last piece of art, it has become a landmark in Louisville and can be appreciated from many of the taller buildings in downtown. Its environmentally conscious owner initially wanted to replace its ailing 20-year-old roof with a two-ply modified bitumen system with a cool roof coating. Before tear-off started, however, the owner asked American Roofing & Metal (AR&M) in Louisville to research a vegetative roof option, and very quickly the top coat was replaced with this "greenest of green" vegetative solution. The JM modified bitumen system remained.

Challenges: The building is located adjacent to a popular river front park, the site of various weekend festivals, so tear-off and staging had to be coordinated around the loading and unloading of trucks bringing in festival supplies and the heavy foot traffic in and out of the park. A worker was stationed on the ground at all times as the existing 16,384-square-foot roof came off and traveled down a specially devised chute to a bin behind a temporary safety fence. During installation of the new roof, special attention was needed at the perimeter and at roof penetrations because of the structure's negative air pressure in order to keep roofing vapors from being drawn back into the building.

Solution: "When plans changed, the JM SBS modified bitumen system still remained the very best solution under a vegetative system," says Troy Huffman, AR&M's project manager. "It's extremely watertight, durable and will hold up for years. Plus, the stainless steel leak detection system laid over the DuraBoard insulation allows any future water leaks to be pinpointed to the exact square inch." JM's cold Urethane Insulation Adhesive was used to adhere the insulation and roof board and under the base sheet within three feet of all penetrations and along the perimeter. The remaining plies of base and the cap sheet were heat welded and AR&M's "green team" installed Green Roof Solutions' multilayer vegetative roof system. The job started in May and finished in August on time and under budget making AR&M's first vegetative roof system installation a success!

Location:

Louisville, Kentucky

Building Representative:

American Life & Accident Insurance Co.
Nana Lampton, CEO/Chair

Contractor:

American Roofing & Metal Co. Inc.
Rick Steinrock, President and Owner
JM Peak Advantage® Contractor

**Roofing System Solution: 3FID-HW
20-Year Peak Advantage® Guarantee
(deck to soil)**

- 1/8" Tapered ENRGY 3® over existing concrete deck
- Urethane Insulation Adhesive
- 1/4" Tapered Pre-Cut Cricket
- 1/2" DuraBoard® Roof Board
- DynaWeld™ Base Sheet (2 plies)
- DynaWeld™ Cap FR Cap Sheet
- Vegetative Roof System
by Green Roof Solutions

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