

Fluid Applied Roof System Solves Costly Abatement of ACM (Asbestos Containing Material) Roof Deck.



BEFORE



AFTER

Located in an industrial valley Southeast of Pittsburgh, the Monessen Riverfront Industrial Park has recently under-gone a dramatic transformation. First constructed around 1914 as Steel Fabrication and Warehouse Buildings, the property had been vacant for over a decade until the Westmoreland County Industrial Development Corporation and the Redevelopment Authority of the County of Westmoreland, purchased the property in December of 1994.



Situated along a bend in the Monongahela River, the refurbished industrial park presently consists of two building complexes with over 265,000 sq. ft. of floor space. Several obsolete sections of the complex were demolished to balance budget and design issues, reducing the total facility to 65% of its original size. The park now leases space for light industrial, manufacturing and warehouse purposes.

The comprehensive scope of the work made budgeting of an effective, economical roof critical. Large sections of the original roof were comprised of metal panels coated with asphalt containing asbestos. The cost to remove and dispose of these panels made replacement of the deck cost prohibitive and complicated the ability to retrofit new metal over the existing deck. With this in mind, the focus shifted to the possible restoration of this portion of the roof assembly. To satisfy cost, performance and safety concerns, the project architect, Design 3 Architecture of Monroeville, PA selected a rubber roof coating system previously used to restore the Galbestos roof deck at Cinergy Field (formerly Riverfront Stadium) in Cincinnati, Ohio. William Snyder of Design 3 Architecture remarked that "after looking at several options regarding the existing asbestos metal roofing, it was determined that since the roof was structurally sound, and due to our very tight budget, we could not and would not remove asbestos metal roofing. Truco afforded us the ability to meet our budget while providing a watertight containment that is aesthetically pleasing."

Manufactured by Truco Inc, of Cleveland, Ohio, the Eterna-Seal fluid applied roof system provides a seamless, fully adhered rubber roof. The thermoplastic rubber coating is designed to waterproof, protect and beautify a variety of substrates including metal, Hypalon, transite, and smooth BUR surfaces. Over asphalt containing asbestos, the coating's exceptional bond

strength and low perm rating provide superior encapsulation properties in comparison to other elastomeric coating systems. Moreover, while new roof assemblies must be capitalized and slowly depreciated, the Eterna-Seal system can be fully expensed as a maintenance cost for tax purposes.

For peak performance of any roofing system a quality minded contractor must be joined with proven products and detailed specifications.

At the Monessen project the General Contractor, Modal, selected D. L. Smith of McKees Rocks, PA to install Truco's rubber coatings. Although new to the Eterna-Seal System, D. L. Smith's extensive experience in tandem with Truco's orientation seminar combined to assure an efficient installation and quality result.

Surface preparation was the initial and possibly the most important phase of the project. Although the roof panels were structurally sound, some pinholing existed. D. L. Smith bridged these areas with a towel grade version of the rubber coating reinforced with a woven fabric. All fasteners were then tightened and generously coated with a viscous seam sealer to prevent leaks and secure the fasteners from backing out in the future. Vertical & horizontal seams were also addressed with the elastomeric sealant using an airless sprayer at low pressure. This approach yields a thick, two inch bead to bridge vulnerable joints and seams throughout the roof.

Once watertight, a specially formulated field coating was sprayed over the entire roof subject to FM-approved test data governing hail, UV and fire resistance. The coating's naphtha base penetrates into the asphalt substrate, thus assuring a bond that will not be subject to future delamination. Once cured, a second and final finish coat was applied to smooth out rough surfaces while adding additional protection. The finished application consists of 28 mils of rubber protection throughout the field, while seams, fasteners, and other details receive extra coverage totaling 45 to 50 dry mils. The durable and attractive roof restoration process adds little weight to the existing structure, while completely sealing out the elements. The manufacturer provides a 10 year, non pro-rated labor and material warranty which can be renewed in 5 year increments with a nominal amount of additional attention.



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