Combination EPDM & TPO Roof Restoration / Charles B. Wheeler Airport
Kansas City, MO
RC-30-GF20 (GacoFlex S20 Silicone)
Clark and Associates
Signature Flight Support
Existing combination EPDM & TPO roof was leaking.
Failing airport roof restored using **GacoFlex S20**.

**PROBLEM:** As drivers prepare to cross the bridge near downtown Kansas City they see the roofs of the historic buildings that make up the Charles B. Wheeler downtown airport. Dedicated by Charles Lindbergh in 1927, these buildings have been transformed from the city’s international airport to a General Aviation Airport.

Signature Flight Support operates the center, and they faced a major maintenance problem. The existing roof, a leaking layer of EPDM and a small portion of TPO, meant that the hangar hadn’t been dry for the last 22 years. Pollution had literally etched holes in the existing EPDM.

**SOLUTION:** Clark and Associates, a roofing contractor, applied GacoFlex S20 over the entire 91,000 square foot roof. There was no need to tear off the existing EPDM roof, significantly reducing the expense to Signature Flight. And with GacoFlex S20’s excellent waterproofing capabilities, Signature Flight was finally able to keep their hangar dry. Says Bryan Orr of Signature Flight, “Layers of deteriorating material caused leaks that washed the pollutants on the roof into the hangar and threatened the paint of the aircraft inside. The GacoFlex S20 was a phenomenal solution to this problem.” Another advantage is that in summer the interior of the hangar now feels significantly cooler than the outside.

**UNIQUE CHARACTERISTICS:** Jet fuel, traffic, a railroad yard, and a manufacturing plant left years of deposits on the roof. The deposits matched the existing black roof, making it very hard to see what needed to be cleaned. Jim Clark, the contractor on the job, described the situation this way: “I washed the roof six times with both detergent and a concrete stripper. But once the cleaning was done and we applied the coating system we discovered that you can’t find a better coating system than GacoFlex S20.”

**INSTALLATION DETAILS:** The roof was laboriously cleaned of all pollutants, areas of rotting plywood deck were replaced, the roof was primed with Gaco Western E5320 primer, and the GacoFlex S20 silicone was applied. Signature Flight chose S20 in white, to reflect sunlight and keep their office area cooler in the summer. After the roof was cleaned seams that were opening were repaired and EPDM coming off a parapet wall was replaced with new EPDM. A complete GacoFlex roofing system that can be warranted includes D09 detergent, E5320 primer, and S20 coating.