The Greenville Downtown Airport terminal building in Greenville, SC, was experiencing an image problem and huge utility bills. Joe Frasher, executive director of the airport, realized something needed to be done, and soon. Although a relatively small airport, the building had high visibility due to its executive business traffic and its location adjacent to the Greenville Exposition Center in the heart of the city. “There was a general concern that the airport didn’t give visitors to Greenville a proper first impression of the city,” said Frasher.

The Greenville Airport Commission, owners of the airport, were in agreement that a complete retrofit/renovation of the airport was in order and began to take steps to get the project off the ground. The $1.4 million project involved gutting the old building, which was built in 1953, and completely changing its exterior and interior. Upon its completion, local officials praised the renovation. “It was time for a change, and we can see it’s a real first-class job, beautifully done,” said Greenville Mayor Bill Workman.

The original structure featured a variety of materials on its exterior, including block, brick, wood lap siding, spandrel glass and stack stone, which contributed to the airport’s outdated and uninviting image. Fred Wood, AIA, project architect at Piedmont Olsen Hensley, Inc., of Greenville, recommended the existing exterior should be torn down and replaced with an exterior insulation and finish system (EIFS).

The Outsulation® System, manufactured by Dryvit® Systems, Inc., West Warwick, RI, was prefabricated in conventional steel stud panels and installed on 15,000 sq ft of walk area. “I chose an EIF system because it’s a lightweight, energy-efficient, durable and architecturally-friendly material,” said Wood. “As the terminal is only 50 feet from the runway, I also needed a system that could be easily cleaned and had enough flexibility to withstand the vibrations associated with take-offs and landings.”

Wood stressed that, in addition to the type of cladding used, the method of its application was an equally important consideration. By selecting the panelized mode of construction and its single, reliable source for both fabrication and installation, Wood realized he would enhance quality control. “Due to the nature of the job, we wanted the exterior to be fabricated in the controlled environment of a panel plant to ensure uniform quality and superior performance.”

Another benefit of panelization...
was that airport construction could continue through the winter without interruption because the lightweight panels were made inside a plant, were easily transported to the job site and were installed immediately. “Panelization with the light gauge steel frames and EIF system best satisfied all our scheduling, cost, design and structural criteria,” stated Wood.

The versatile, lightweight panels consisted of 16- and 18-gauge steel framing welded to form the structural skeleton to which ½ in. gypsum sheathing was screw attached. One inch thick expanded polystyrene insulation boards were adhered to the substrate. Reinforcing mesh, including Panzer® 20 high impact mesh around the entrance, was embedded in the base coat for durability. A sandy-textured finish provided the final design accents.

Bonitz Manufacturing Co., Inc., of Greenville assisted in the design and engineering of the project, fabricating panels as large as 30 ft W x 14 ft H. Some panels formed an arch at the terminal entrance and a series of special “step-ins” and “step-outs” around the building.

Bonitz also took advantage of the design flexibility inherent in the system’s insulation board component. According to Macon Clark, assistant vice president at Bonitz, “V-grooves, as well as decorative 18 in. half columns, were easily and economically incorporated into the panel system.” This was accomplished using various equipment at the panel shop, including laser-eye cutters and a rasping machine to shape and smooth out the surface. Clark added that portions of the
The original exterior was clad in a variety of materials, which contributed to its “dated” look.

After squaring the building, the vertical studs of the panels were welded to bent plates and then bolted to the existing concrete roof deck. The panels were kept in place with metal step kickers welded at the bottom of the building’s structural frame. Triangle Construction of Greenville was the general contractor on the job and supervised all the exterior and interior work.

“The new EIFS exterior surpassed our expectations,” concluded Frasher. “It looks absolutely wonderful. It’s safe to say we no longer worry about our business travelers’ first impressions of Greenville. In fact, many have said it’s the best looking general aviation airport they have seen in the country.”