

Modular turf system evolves in Puerto Rico

BY MARK LESLIE

The Ponce Lions completed last baseball season on a brand-new, real-turf field at the city's Estadio Francisco Montaner, and that same stadium was then changed over into a track-and-field venue for Puerto Rico's annual college championships.

"It was great. It worked perfect," Rama Construction co-owner Hector Costas said of the technology. "I was a hero in Puerto Rico for several months."

The world got its first glimpse of the possibilities of modular turf when Michigan's Pontiac Silverdome hosted a portion of soccer's 1993 World Cup Championships. Because World Cup matches must be played on natural grass, and the Silverdome had artificial turf, Michigan State Professor Trey Rogers and the staff of the Robert W. Hancock Turf Research Station were asked to solve the problem. The result was octagonal trays filled with natural grass that could be moved into the stadium and later removed.

That was the genesis of GreenTech's Integrated Turf Management System (ITM). The Ponce solution started with a discussion between Costas, a civil engineer, and Frankie Lopez, owner of Eco-Tectura and a sister company, Jardinero (Gardener), both in Ponce. City officials wanted to maintain their

Estadio Francisco Montaner with natural grass for the Lions, but still be able to host, on synthetic track, the collegiate track-and-field competition and, on occasion, the PanAmerican Games for Central America and the Caribbean.

The quandary was left to Rama Construction to solve. Years before, Lopez had told Costas about GreenTech's modular system. And neither man had forgotten them. A phone call later, GreenTech was shipping about 2,000 of its trays to Puerto Rico. Once on site, half of the modules were filled with the traditional mix for turfgrass, while the others were filled with concrete, topped with the special synthetic surface for track-and-field competition.

"The GreenTech modular system is perfect for multi-use venues such as



Estadio Francisco Montaner. The concept was truly 'outside the box,'" said John Patton, vice president of GreenTech, which manufactures 4-square-foot, high-density, polyethylene containers that have primarily been used for athletic fields, golf course tees, and rooftop gardens.

For athletic fields, the GreenTech modules are filled with a layer of gravel and 7 to 11 inches of rootzone mix then turfed with sod, seed, or sprigs. "Foot locator pads" lock the modules together and keep them closely aligned to insure no seams or joints disrupt the playing surface. Channels accommodate forklift or pallet jack arms on all four sides; and numerous small holes enable extensive drainage and gas exchange into the rootzone.

"You have to fight traditional thinking, but the science is behind this method," said Patton. "Dr. Rogers at Michigan State is an adviser for GreenTech as well as Dr. Rich Hurley at Rutgers University and Dr. Dave Chalmers of Texas A&M."

In Ponce, Costas said: "Comments from the Lions ballplayers were great. There are fewer injuries because it is natural grass." He said construction, like that at Estadio Francisco Montaner, should take about 2 weeks.

Once a concrete base is poured, installation is simply a matter of putting the trays in place, using a forklift since they weigh from 600 to 1,000 pounds. Transferring the modules from turf to the synthetic track takes 7-8 days, although Costas' crews performed the task in four long workdays.

While the Lions play baseball, the 879 track-and-field trays are stored off-site. Likewise, when track-and-field is in season, the turf trays are stored elsewhere.

Mark Leslie is a freelance writer based in Monmouth, ME. He can be reached at gripfast@ctel.net or 207-933-6708.

ST