

Student fees fund the project

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A MULTI-YEAR EXPANSION PROJECT at Georgia's Kennesaw State University has culminated in one of the largest synthetic turf complexes in the US with six fields designed for sports and recreation activities. Located just north of Atlanta, KSU is the third largest university in Georgia and serves more than 24,000 students.

The new KSU Sports and Recreation Park spans 88 acres and boasts a showcase of facilities that meet the needs of an active student population. On any day of the week, visitors can see hundreds of students at the new KSU center competing in intramural and club sports; participating in fraternity and sorority workouts; marching in ROTC drills; planning concerts and more.

The NCAA-qualified Park also plays host to NCAA soccer tournaments and NCAA track meets.

Funded by a student fee initiative, the KSU Sports and Recreation Park interweaves modern synthetic playing surfaces with traditional natural turf fields for a harmony of venues.

The third and final phase of the 5-year project opened in April. Along with the three natural turf fields, the KSU Park offers five synthetic full-sized fields and one synthetic intramural field. The artificial turf fields are booked with men's and women's rugby, soccer and lacrosse, along with softball, baseball, football, flag football, running, ultimate KSU frisbee, kickball and more.

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Built by Choate Construction Company, the Park also features a new 8,300-seat stadium for sporting events and open air con-

certs; a 16,000-square-foot indoor training facility; a 9,000-square-foot center for training and concessions; an NCAA track; sand volleyball courts; warm-up training areas; a nearly 1 mile walking/jogging trail, and a 9-acre lake which acts as a reservoir.

Before the park's construction, students only had access to a 1.7 acre site for all intramural and club sports. Varsity teams had separate facilities, but intramurals and clubs typically had to practice miles away from campus, if they could find a field.

>> Left: KENNESAW STATE UNIVERSITY is located just north of Atlanta and with 24,000 students is the third largest college in Georgia. **>> Middle: WITH SIX NEW SYNTHETIC TURF FIELDS**, rugby players and other intramural and club sports enthusiasts can schedule games and tournaments year-round, even during wet weather. **>> Right: KSU SPORTS AND REC PARK FIELDS** are constructed with XP Pro Fiber, a synthetic turf material designed for high-use, multi-purpose sports fields.



>> UNDERHILL LONG THROW SPRINKLERS cover up to 174 feet in distance and are installed around the perimeter of the synthetic fields.

A unique funding model was devised at KSU to pay for the land acquisition and construction. The Student Fee Committee and the Georgia State Board of Regents approved student financing of the project, which was underwritten by the KSU Foundation. Students are assessed \$75 per semester towards payment of the land acquisition, construction and park development.

“The college administration agreed with the students that important life lessons take place outside the classroom on the sports field,” says Laura St. Onge, associate director of sports and recreation at the university.

St. Onge has been involved in the project since its inception and oversees day-to-day operations, including site improvements and maintenance. A 20-year veteran of the landscape industry, she has specialized in sports fields.

NEW OPPORTUNITIES WITH SYNTHETIC TURF

Synthetic turf was selected for a range of reasons, according to St. Onge. Along with the savings from lower maintenance and ir-

>> Below left: THE NEW KSU SPORTS AND RECREATION PARK encompasses 88 acres and, along with the new fields, includes a stadium, indoor training facility, NCAA track, sand volleyball courts and nearly one-mile hiking/jogging trail. **>> Below right: SPRINKLERS ARE RUN** before sporting events, and often at halftime, to keep the playing surfaces cool and clean. Surface temperatures can reach 150-180 degrees on hot summer days. Water can bring the field temperature down 50-60 degrees.



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rigation costs, the artificial fields opened new opportunities for the campus.

“We now have year-round playability on consistent surfaces, which can enhance training and performance,” she said.

“Games can be scheduled regardless of weather conditions because the drainage system keeps the fields playable during or after a rainfall. Scheduling is seamless and the fields are virtually ‘cancellation free,’” she said.

With minimal maintenance and irrigation scheduling, the fields are available day and night for multiple extracurricular activities. And the school has the option to lease the fields to other athletic groups and associations, providing revenue during idle times.

Southwest Greens International (a division of Shaw Industries) manufactured and installed all six synthetic turf fields with XP Pro Fiber, a material designed for high-use, multi-purpose sports fields and which provides a realistic playing surface.

“The yarn used in the fiber is specifically for sports fields and



>> Above: UNDERHILL TOTAL SOLUTIONS KITS were installed at KSU. The TS Kits are new all-in-one sprinkler assembly packages that include sprinkler hardware and detailed AutoCad illustrations of the site-specific irrigation system.

among the most durable available,” says Barry Johnson, construction superintendent for Southwest Greens.

“XP Pro maintains 85% of its fibril integrity over a 10,000-cycle test, which mimics 10 years of use. This evaluation was based on the industry-standard LISPORT Test*,” he said.

INSTALLING COOLING CANNONS

One of the challenges for Associate Director St. Onge was how to keep the fields cool and comfortable during hot Georgia summers, and how to clean them year-round.

“Georgia summers can warm up to 100 degrees. That means a surface temperature of 120 to 180 degrees and that sort of heat goes right up the cleats.

“I was familiar with Underhill’s Mirage Series of long-throw sprinklers. They cover up a lot of turf with a high volume of water that effectively cools and cleans the entire surface. We installed four to six heads per field, depending on site dimensions.

“My experience is that synthetic turf and cooling systems go hand-in-hand. You can’t build a synthetic turf sports field in Georgia without planning for a cooling system. Our first concern is player safety and cooling the fields helps ensure that.”

M-174s sprinklers from Underhill International feature a long throw (up to 174 feet) so they can be placed outside the area of play for greater safety. “We considered a range of options, but the durability of the M-174s met our criteria for long-term performance,” she said.

St. Onge reports that the “cooling cannons” are run before games, and often at halftimes, when the field temperatures exceed 150 degrees. Each head covers a 180-degree arc and runs for two rotations, lasting 45 to 60 seconds each and delivering up to 328 gpm, depending on nozzle and pressure.

“By cooling the fields, we can bring the surface temperature down 50-60 degrees and minimize heat exhaustion and athlete discomfort.”

In Phase III, KSU went further and installed 10 new all-in-one sprinkler assembly packages that include sprinkler hardware and detailed AutoCad illustrations of the site-specific irrigation system. The Total Solutions Kits from Underhill include M-174s long-throw sprinkler; laterals with isolation valve configuration (3-, 4- or 6 inches deep); 3-inch electric sleeve valve; ductile iron swing joints with all required fittings and assemblies; plus a stainless steel Turf Box enclosure, which allows access to the sprinkler without disturbing the turf.

“Long throw sprinklers provide value to any synthetic turf installation,” said Southwest Greens Barry Johnson.

“Cooling and cleaning are critical elements to maintaining a long-lasting fiber field.”

St. Onge reports that the KSU facilities have become a magnet for big league events. The 2011 NCAA Division I Women’s Soccer College Cup was recently played at the new KSU stadium in December 2011.

“Quality academics and a vibrant campus life are part of any top university,” says Kennesaw President Daniel S. Papp. “The KSU Sports and Recreation Park is an important addition to the

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university’s infrastructure. Kennesaw State is well on its way to competing at the national level.”

* The LISPORT test is a method used to get an indication of the durability of turf blades in a specific turf construction. The test gives a visual indication on how a synthetic turf system will age in time as a result of use. The durability of the turf carpet not only depends on use, but on the combination of installation, weathering, and maintenance. The results of LISPORT testing are very useful in comparing different types of components or tuft settings and provide an indication of the durability of the synthetic turf system. In the test two studded cylinders are rolled over a test piece of turf for a pre-set number of cycles. The number of cycles simulates a period of play on the pitch, as the studded roller simulates a cleat. ■

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