The Metropolitan State College Roadrunners hosted their first home game February 19. Thanks to Tom Moody and staff, the baseball field of Auraria Higher Education Center, the STMA / BeamClay / sportsTURF 1998 College Baseball Diamond of the Year, was up to the challenge.

It hasn't always been that way, though. The original fields were built on rubble. After the sod was removed during the field's 1997 renovation, only a two- to three-inch layer of topsoil covered the gravel, brick, and debris.

The six-month renovation involved nearly nine acres of fields: the premium baseball field; a softball field; and a large, multipurpose area that encompasses the soccer and rugby fields. Besides varsity baseball and recreational softball, the college has both men's and women's Division II soccer teams, a rugby club, intramural play, and on-field teaching. Field-use rotation was an essential part of the renovation plan.

"Baseball's 1998 spring season began in early February on sod that had been installed in mid-October, giving that sod little actual growing time," says Groundskeeper III Moody. "An 8-16-16 quick-release fertilizer was applied at the rate of 1/4 pound of N per 1,000 square feet immediately after the sod was placed. Little irrigation was necessary due to 24 inches of snow that fell on Oct. 24-25, 1997. Some root development did occur, and the turf held up rather well under dormant conditions for the start of the season."

Teamwork
The Auraria Higher Education Center houses the Metropolitan State College of Denver, University of Colorado - Denver, and Community College of Denver. Moody started as a crew member there in 1976, and he now serves as working supervisor. He says, "Constant attendance of conference seminars and association training sessions is vital to the growth of any grounds maintenance professional. The Rocky Mountain Regional Turfgrass Conference is an excellent learning tool. The STMA Annual Conference in Arizona was one of the most educational programs I have ever attended."

Groundskeeper I John Osterman is the other full-time employee. Baseball Coach Keith Kobold works full time for about 3/4 of the year, and Randy Yarbrough is a part-time groundskeeper helper.

The four-man team maintains a six-block area, including the entire sports turf facility, 12 blacktop tennis courts, the parking lot, all the parking strips around the perimeter of the baseball complex, the landscaping around Tivoli Brewery (a Denver historical site), and the general cleanup for one building on campus.

"Teamwork is the key to success," says Moody. "We receive extra help from other grounds staff members around the campus whenever necessary. Dr. James Watson has been our consultant for the project and maintenance. His experience and expertise as an agronomist have been vital for our success so far. Besides, working with Jim is a pleasure, and it's great to have my years of experience verified by such a quality professional."

Renovation
The 95-percent sand / five-percent Dakota Peat profile is a four-inch layer capping the clay subgrade. Cut

Continued on pg. 27
into the subgrade, an eight-inch by eight-inch trough backfilled with pea gravel holds ABS collector drains placed on 30-foot centers. These drain lines drop into the storm drain at the low end of the field.

Additional material was brought in to fill and finish the subgrade layer. The sand and peat were blended off site and trucked to the fields. All stages of reconstruction were laser leveled.

The skinned portion of the baseball field uses a six-inch layer of a locally produced clay-topsoil mix. The skinned area surface is conditioned with sand, Turface Pro-League, and MVP. It's topdressed with sand because the material packs tight.

John Osterman brainstormed an innovative procedure for the drain outlets, capping them with a plug that contains a one-inch clear pipe. He says, "If there's a high runoff, they can still drain, but they hold back the majority of the runoff. This was intended to counteract seasonal problems, as winter snow would remain on the drain lines, and then in the summer they would tend to dry out. We assumed some air movement was chilling the lines in the winter and resulting in desiccation in the summer. This system helps to control the humidity level a bit by controlling the drains. The fields are at a 1-1/2 grade, so we can't back up the moisture, but we do see the affect at the low end.

"The original intent with the one-inch line was to see if we could recycle some of the effluent from the field through a process of pumping it out and reapplying it. Moody researched the use of a venturi valve and using our irrigation supply as the pump, but we haven't found a practical way to make this application work and we're open to suggestions."

Irrigation

The new irrigation system uses a Motorola 5000 controller and Toro 640 and 700 rotors. A well delivers water through a six-inch main that comes clear across the field. A four-inch loop goes all around the complex.

"Water management is critical," says Moody. "Though snowfall can be heavy, it generally melts within a few days. The winter of 1998-99 had had below-normal precipitation, so we've needed to irrigate in December and February.

"Our fields are in the open, exposed to desiccation year-round, and humidity is always low. During the summer, temperatures spike into the high 90s. High night temperatures add to the turf stress. We have three irrigation zones for the infield and foul territory by the dugouts, and six zones for the outfield.

"We can run up to three zones at once and have a syringe cycle that gets the water down in an hour. We also have strategically placed quick couplers, with two on the baseball infield, and five 1-1/2-inch gate valve outlets around the complex from which we can run a 1-1/2-inch fire hose for a portable sprinkler or a nozzle. The fields are irrigated heavily once a week and programs are adjusted for the correct amount of water the rest of the week."

Turf

Thin-cut, big-roll sod grown on the sandiest soil locally available minimizes imported clay and the "sod cap" scenario. Still, Moody's crew has been heavily coring in March, May, and November, and sweeping off the cores to remove the clay. In May and November, the crew follows coring by topdressing 1/8-inch with a 90-percent sand/10-percent Dakota Peat mixture. The USGA specification continues to be their standard.

The crew uses Turface for topdressing and seeding in problem turf areas, and pre-germinated seed is used whenever possible. Crown III is used in high-traffic areas.

Slicing and solid-tine aeration take place monthly during the rest of the season. Solid tines are used in the summer; slicing during the spring and fall to minimize surface disruption.

Only December and part of January are off-season. With only a softball league in play during the summer, that becomes the prime maintenance period.

Fall overseeding has used a blend of 40-percent perennial ryegrasses and 60-percent bluegrasses. The last seed purchase included 30-percent midnight to incorporate its aggressive nature and its ability to hold up at ultra-short heights.

Moody has established a sod farm behind the batting cages, where the turf receives the same care as the field. Some is mowed to infield height, and some to outfield height. Repair plugs are cut out with a bulb planter to a depth of 3-1/2 inches. This sod farm is rejuvenated by seeding, so all future resodding will
match the field turf and soil profile.

“Mowing frequency ranges from daily to two to three times per week, depending on turf growth,” says Moody. “We use an 84-inch triplex reel mower for the outfield; and a 20-inch, walk-behind reel mower for the infield.

“We raised our mowing height to three inches during the summer of 1998, but lost the blade density we wanted for fall sports. This year, in the outfield we’ll use two inches as our top height and drop down to 1-1/2 inches for play, and keep the infield at 1-1/2 inches in the off-season, dropping to one to 1-1/4 inches for play.”

Moody cites the cooperation of the Roadrunners’ coaching staff as a major factor in maintaining field playability. He says, “The mounds were built by the baseball pitching coach and the players with the assistance of my staff, and the coach does a lot to maintain the mounds.

“The coaches also keep a duty roster for the players. They sweep edges, drag the skinned area, rake, and do the cleanup. They even drag hoses and do the watering for games. Our staff hasn’t traditionally provided coverage on weekends when they have doubleheaders, so they used to do that themselves. We have changed that with the new field to provide more immediate repair, seeding, and watering to aid in recovery.”

Bob Tracinski is business communications manager for John Deere in Raleigh, NC. He is public relations co-chair for the National STMA.