FLUOR FIELD
at the West End, Greenville, SC
**Reason for renovation:**

Preexisting surface mixed with 419, Princess uniform Tifway 419 surface opposed to the ing a weak root zone. Also, it gave this area a resulting in layering issues in several spots giving us trouble in our shaded areas. Large areas of this 22,000 sq. ft. have been sodded in the past years reducing down drainage and contributing to winterkill seed establishment.

**Combat bermuda winterkill and promote over-seed blankets for the sod establish, they give us the established all clay and warning track edges.**

The first 12 days to help promote root growth. Re-graded everything in and 300 tons of 100% USGA spec sand brought in to the void. Laser-graded everything in fair territory flat and graded foul territory to its back in to the void. Laser-graded everything in and 300 tons of organic material removed out of the infield and foul territory grass (approximately 22,000 sq. ft.)

**What was done:**

We excavated the top 4" out of the infield and foul territory grass (approx. 22,000 sq. ft.) to clean USGA spec sand. 300 tons of organic material removed and 300 tons of 100% USGA spec sand brought back in to the void. Laser-graded everything in fair territory flat and graded foul territory to its existing clay warning track edges to give approx. 1-1.5% fall. Sodded everywhere with Tifway 419 in solid big rolls. Turf blanketed for first 12 days to help promote root growth. Re-established all clay and warning track edges. Replaced leaky, poor functioning irrigation heads with new heads. With obtaining turf blankets for the sod establish, they give us the tool to use them whenever we want to help combat bermuda winterkill and promote over-seed establishment.

**Turfgrass variety:**

Predominantly Tifway 419 bermudagrass, with seeded variety bermudagrasses Riviera and Princess 77 in the outfield. Infield and foul territory is all Tifway 419

**Rootzone composition:** 100% USGA sand

**Overseeding:**

October 3, 2011 overseeded the field in five directions at 8 lbs/1000 sq. ft. with a 3-way perennial ryegrass blend (Majesty, Citation Fore, Quicksilver, Charger II). This year, we seeded Oct. 5 in four directions at 6 lbs/1000 sq. ft. (Grand Slam 2, Home Run, Flash II). All seed was topdressed and dragged in thoroughly. Seed began to germinate 5 days later. Drainage: Roger Bossard patented drainage system. 10-inch 100% USGA spec sand with 15 foot drain lines feeding into a main line bordering the warning track.

**CHALLENGES**

The theme of this year was rain. We as an organization had an advertised goal of getting 350,000 fans through the season this year. We wound up with 347,400 fans, due to a season high rainouts of three this year. We also set a new, year long record for tarp pulls with 72, a lot of which were dry pulls. The first half of the season, huge storms dropping inches of rain would get within .25 miles away but not ever reach the field, so the tarp was on a lot. The second half of the season these storms would form very close to the field and rain .5+ inches, but .25 mile away from the field stayed dry, so the tarp was on a lot. We had to reschedule events or put them on the concourse because we would get .75-1.5 inches of rain the morning of the event, when only a 10-20% chance of rain was forecasted. Many overnight tarps were precautionary more than anything. It is a lot easier and cost effective to take off a dry tarp in the morning than to dry out the infield.

Toward the beginning of our transition mid-late June, we had 6 days straight of 100-110 degree days which checked out 90% of what ryegrass we still had. This left huge voids in the grass in the infield and foul territory mainly. The outfield definitely struggled as well but not as much as an eyesore. Giving the timing of this heat wave, we did not have enough time to resod the much of these voids, resulting in very poor appearance for a very big July 4th five-game homestand. The playability did not suffer too much. Players kept their footing fine, but we did see a few bad hops. The lack of grass made the field play a lot faster, which the infielders didn’t like. At this time, we knew that were completely renovating all of the infield and foul mid-Sept., so we juggled trying to grow in these areas versus resodding much of it (ultimately sodding the same 6,000 twice in a 2-month span).

The 10-day break after this homestand was perfect to do any necessary sodding, but had to hold off until the 5th day of the break to sod due to two professional fast pitch softball games scheduled in the middle of this break. We ripped out and sodded 5,500 sq. ft on day 6 of the break, only allowing 5 days until our next game. We honestly could have resodded twice the much if the time and resources allowed. All other areas not resodded were pushed hard with .5 lb/1000 ammonium nitrate/weekly with our normal .5 lb 14-14-14 biweekly, until suitable conditions and coverage were met.

**SportsTurf:**

What channels of communication do you use to reach coaches, administrators and user of your facility?

**Burgess:** The best way I communicate with coaches, new and old, are face-to-face meetings. This gives the coaches a good idea of the person and groundskeeper I am, as well as my intentions of maintaining the surface to a high standard. It always helps to have a good rapport with each coach. There will be coaches that will come to me to tell me their plans and there are coaches that will never tell me unless I ask them. Some coaches will write their practice schedule for the next day on a dry erase board in the clubhouse following the night’s game. This helps, but frequently changes overnight, so I make a point to speak with the coaching staff as they arrive to the ball field to check their plans. This includes the home and away team because at this level, we have roving coaches in town often and they need to get work in with their players. Their workouts vary from day-to-day so communication is the key to making sure we have the field prepared for whatever drill they are planning.

The front office staff is the same way. I prefer face-to-face meetings, but it is very rough as we all are very busy throughout the day. The front office will have homestand meetings as well as game day meetings. I make a good effort to attend all homestand meetings to note any pre-game, in-game, or post-game activities going on that would affect the field. Game day meetings are hit or miss depending on the teams’ practice schedules. We also have a web-based calendar with all games and special events on it, along with the point person’s name. This calendar is updated frequently and helps me have a heads up of games and events through the year to better plan staff, projects, etc.

Once our game schedule is set I will plan out my year for when I’m planning to aerify (solid or coring), topdress, resod, etc. As the year plays out, the gaps in the schedule where I plan these projects often get filled with either more games or special events. I communicate my plans to all front office staff to stress which gaps in the schedule are crucial to keep clear so I can do these management projects with the maximum amount of recovery time.

---

**Head Groundskeeper**

**Category of Submission:** Baseball

**Experience:** Four seasons in Triple A Charlotte; 3 years grounds crew for Clemson University; student field manager for Clemson baseball/football. Interned for Greenville Drive in their inaugural season (2006) and have been head groundskeeper 2008-present.

**Full-time staff:** Greg Burgess & Ross Groenewalt

**Other crew to recognize:** Chris Rinebold, Christopher Grove, Kevin Donahoo, Barry and Josh Cole, Matthew Yochum, and Kyle Carter

**Original construction:** 2006

**Renovation:** 2012.

**Reason for renovation:** To remove the accumulated organic layer that was slowing down drainage and contributing to winterkill in our shaded areas. Large areas of this 22,000 sq. ft. have been sodded in the past years resulting in layering issues in several spots giving us trouble in our shaded areas. Large areas of this 22,000 sq. ft. have been sodded in the past years reducing down drainage and contributing to winterkill seed establishment.

**What was done:** We excavated the top 4" out of the infield and foul territory grass (approx. 22,000 sq. ft.) to clean USGA spec sand. 300 tons of organic material removed and 300 tons of 100% USGA spec sand brought back in to the void. Laser-graded everything in fair territory flat and graded foul territory to its existing clay warning track edges to give approx. 1-1.5% fall. Sodded everywhere with Tifway 419 in solid big rolls. Turf blanketed for first 12 days to help promote root growth. Re-established all clay and warning track edges. Replaced leaky, poor functioning irrigation heads with new heads. With obtaining turf blankets for the sod establish, they give us the tool to use them whenever we want to help combat bermuda winterkill and promote overseed establishment.

**Turfgrass variety:** Predominantly Tifway 419 bermudagrass, with seeded variety bermudagrasses Riviera and Princess 77 in the outfield. Infield and foul territory is all Tifway 419

**Rootzone composition:** 100% USGA sand

**Overseeding:** October 3, 2011 overseeded the field in five directions at 8 lbs/1000 sq. ft. with a 3-way perennial ryegrass blend (Majesty, Citation Fore, Quicksilver, Charger II). This year, we seeded Oct. 5 in four directions at 6 lbs/1000 sq. ft. (Grand Slam 2, Home Run, Flash II). All seed was topdressed and dragged in thoroughly. Seed began to germinate 5 days later. Drainage: Roger Bossard patented drainage system. 10-inch 100% USGA spec sand with 15 foot drain lines feeding into a main line bordering the warning track.

---

www.stma.org
F.O.Y. | Flour Field

For any users of the facility, I try my best to be involved in the planning process as early as possible. Most of the staff knows to include me with information. In my opinion, having input early on in planning on-field events and games only helps the event run smoother and any dilemmas can be minimized. I can give input that most event planners do not think of at first as it pertains to the ball field.

SportsTurf: Any tips on communicating well?

Burgess: The “my way or the highway attitude” does not work as I have found. In some cases it can be black or white and you can argue that, but it’s best I have found to stay open-minded with anything presented to you. Games and events will get thrown on you at last minute, so instead of getting frustrated, I quickly begin to think of what my staff and I need to do to make things happen. I make sure the schedulers know of any limitations they have and what needs to take place for their event to happen, as well as how it’s going to affect my plans for the field. Nine times out of ten, my plans for managing the turf are what usually have to change. Understanding that and dealing with it are important to know. Also, I make sure my entire grounds crew is familiar with where everything is stored and up to speed with the grounds crew “lingo” in case a scenario arises which requires immediate attention.

The most important tip I can give besides these is to stay in contact with those who have helped and those you have met. These individuals are people I can call anytime of the day or night with any kind of question. There are countless times, I feel like I have no clue what I’m doing or what the next step should be. It’s great to get someone else’s perspective on situations.

SportsTurf: What are your specific job responsibilities?

Burgess: My responsibilities pertain to almost everything that’s growing on our property. This includes everything on the ball field, two off-field bullpens, a large grass berm seating area in left foul territory, all surrounding grounds of the stadium, and numerous plantings and pots throughout the inside and outside of the stadium. Each bullpen has approx. 750 sq. ft. of grass that is maintain exactly like the field to use as sod farms. This has worked out great for me to use as test plots and for when we need to do some small patches after our college tournament in late May. The outside grounds include general maintenance of mowing, fertilizing, pruning, and summer and winter annual installations. The outside grounds can be challenging to keep up sometimes with a small day staff during our minor league season. We have normal work to be done on-field each game day, so staying on schedule with our other responsibilities can be tricky.

SportsTurf: What do find most enjoyable?

Burgess: The most enjoyable part for me is working with my grounds crew. From game-timers to interns to my assistant, I have had some fantastic people working for me. I had a professor in Clemson that always said, “Surround yourself with great people.” That’s the mentality I keep when hiring new staff and the potential I look for in them. I enjoy seeing them grow and taking pride in the finished product come first pitch. We have developed a great team dynamic that shows when we are out on the field.

SportsTurf: What task is your least favorite and why?

Burgess: Probably the task I like the least is tarping the field. It is easy to tarp the field…in most cases, when I have enough help. But there are times when the tarp goes on or comes off with very little help. I’ll do whatever I have to do to make sure we get a game in and we are not drying an infield before game time. The 2012 season had its fair share of tarping and even set Fluor Field records. We had countless storms that dumped buckets of rain either right beside the stadium and we didn’t get any rain, or we got dumped on and the other side of the street didn’t get a drop. On those days, the tarp was more than likely on the field. I am never opposed to the task of rolling tarp, but when it is on the field in our hot and humid climate, it was bound to play a role in our transition and the turf’s performance. I’ll give it up to the tarp crews; I worked their tails off rolling the tarp on and off the field. The amount of unfortunately timed rain played its part in our 2012 campaign of getting 350,000 fans through the stadium during the Drive season. Our record of three rainouts kept us just short at 347,700 fans.
Burgess: I was an intern for the Greenville Drive in their 2006 inaugural season, which was to ever backup, so the field would not turn into a bathtub. I have learned a great deal about this field and am still learning every day.

Burgess: What was your first sports turf job?
I was an assistant groundskeeper for the Triple A Charlotte Knights under head groundskeeper Eddie Busque. Eddie has continued to mentor me through all facets of minor league baseball. I was able to work a regular home game schedule, get my first taste of special events, and know the work required throughout the off-season and especially leading into the next season. Eddie has been in the business for quite a while and he is very knowledgeable about the building of new ball fields. Through application, I began to understand the design and components of a ball field that take place under the turfgrass. I'm very grateful for the experience I had in Charlotte. That is where I began to discover what kind of groundskeeper I'd like to be.

One year later, the Greenville Drive head groundskeeper position came available and I was lucky enough to get it. The relationships I made with the staff during my internship season proved to be extremely advantageous. Fluor Field at the West End is a 100% sand-based field with a state-of-the-art gravitational drainage system patented by White Sox head groundskeeper Roger Bossard. The sand profile percolates at over 26”/hour into 2 miles of 4”, 6”, and 8” drain tile. It also has flipper valves installed in case the nearby Reedy River profile percolates at over 26”/hour into 2 miles of 4”, 6”, and 8” drain tile. It also has flipper valves installed in case the nearby Reedy River. I have learned a great deal about this field and am still learning every day.

Burgess: After our 2012 season, we were able to renovate our infield and foul territory turf. We pulled out everything down to the original sand profile to help solve issues we had with uniformity, drainage, and rooting. While keeping my normal fertility program simple, I plan to keep a much closer watch on my nutrient levels on this renovated area, as nutrients will leach out more quickly than rest of the field. And as usual, I’m always trying to think of new ways to become more efficient with any projects in the future. Eventually I'd like to renovate the rest of the field.