

IT TAKES TEAMWORK

By Suz Trusty based on interviews with Casey Carrick and Chad Price and background information on the project

You've heard the story—Kenan Memorial Stadium, home of the University of North Carolina (UNC) Tar Heels football team—kept natural grass for a double whammy of practices and games for the 2017-2018 and the 2018-2019 football seasons. You've heard the process—overnight field removal and replacement with Carolina Green's GameOnGrass™, the proprietary turfgrass sod, grown on plastic, the company has developed for such use. And you've heard the outcome—Success! Great playing conditions for the players at less cost than anticipated.

Here's the story behind the story; how a forward-thinking University and a forward-thinking field construction company/turfgrass sod producer used excellent communication and 100-percent transparency to make it happen.



This shows the Kenan Memorial Stadium football field on August 25, 2017.

The Players



Casey Carrick, CSFM, is director of athletic grounds and turf management for UNC.



Chad Price, CSF, CFB, is co-owner of Carolina Green Corp.

Casey Carrick, CSFM, is director of athletic grounds and turf management for UNC in Chapel Hill, about 30 miles northeast of Raleigh. He's a graduate of North Carolina State University's turfgrass management program and a Certified Sports Field Manager (CSFM) through the Sports Turf Managers Association (STMA). He and his staff of nine full-time and two part-time personnel manage 16 acres of natural grass and 11 acres of synthetic turf athletic fields covering the sports of football, soccer, lacrosse, field hockey, baseball, softball, and track and field.

Carrick says, "My assistant, AJ Congelli, is also a NCSU graduate. He's been with me for six years. AJ and our staff are great team members, totally dedicated to the work we do, and to providing the best possible playing surfaces for our players. Their buy-in was essential to tackling this venture."

TPI member Chad Price, CSFM, CFB, is co-owner with his wife, Kerry, of Carolina Green Corp. in Indian Trail, North Carolina, about 16 miles southwest of Charlotte. Price is a graduate of Virginia Tech's agronomy and crop science program; a CSFM through STMA; and a Certified Field Builder (CFB), for both natural grass and synthetic turf fields, through the American Sports Builders Association (ASBA).

The dual roles of sod producer and athletic field builder are synergetic for Carolina Green and doubly beneficial for its clients. Price says, "The field building opens the door for a lot of our work as a sod producer and our sod production also helps us get those field construction jobs. Understanding the performance demands of a natural grass athletic field led to our development of our own trademarked instant play sod grown on plastic—GameOnGrass™."

Nearly all of Carolina Green's sod production is used on athletic fields, though they sell a small amount for landscape and commercial turf applications. Price says, "We're not a big sod farm. We grow about 300 acres of standard sod and about 60 acres of GameOnGrass. It's a very intensive crop for the specific use of instant play on athletic fields. We install it and sell to other field construction companies for their installations."



The field prior to resodding.

There's a long history and strong ongoing relationship between Carolina Green and UNC. And Carrick and Price have worked on many field construction and renovation projects together, including the UNC soccer/lacrosse practice fields and baseball field.

The Situation— Major Facility Projects

Located in the middle of the campus, Kenan Memorial Stadium is a true treasure. Home to the UNC football program since its construction in 1927, it has gone through numerous renovations. Throughout all those years, the field has been natural grass. Carrick reports, "In 2015, we rebuilt the Kenan Memorial Stadium football field, again working with Chad. Basically, we went all the way down, replacing an existing storm line and installing a new sand-based field that is state-of-the-art and it's been great. So we know the quality of work that Carolina Green does."

With UNC's growth in student population and in sports programs, came the desire to update existing facilities. Shortly after Bubba Cunningham arrived as director of athletics in 2011, UNC began developing a master facilities plan for its 28 varsity programs. Major facility projects to be undertaken concurrently would necessitate tearing out multiple existing facilities and constructing new ones. (Details were posted in May of 2017 on <https://goheels.com/news/>.) Football would gain a new indoor practice facility, with two outdoor, 120-yard practice fields (one synthetic and one natural turfgrass) built adjacent to it.

This master plan would require a "spirit of compromise" as the coaches and programs involved would face 12 to 15 months of disruption. Carrick says, "Yet the benefits to each program were well worth that disruption. Just considering football, the three fields at our practice facility will provide much more space to spread out the 85 players involved in that program."

Exploring Options

Carrick says, "Much of the planning for these major projects took place in 2014, which gave us time to analyze the issues we'd be facing and explore the options to work around them. Construction on the football practice fields was scheduled to begin in May or June of 2017. We knew football would be without a dedicated practice field for the duration of the project. We looked at taking the team off campus for practices, but the logistics made that unworkable. We considered splitting up the construction, doing one half first and then the other half, but we're so limited on space, that wasn't workable either. The other option was to keep the team in the stadium, using it for both practices and games during the transition."

The initial plan was to replace the natural grass field with a synthetic surface to handle the double wear and then, when the practice facilities were completed, to switch the field back to natural grass. Price says, "UNC asked us what it would cost to remove the existing field and install a synthetic turf field and we provided those numbers."

Carrick says, "Chad helped us get the initial cost of going synthetic, about \$1.4 million. There was some natural grass around the field, but off the field, and then hedges and a concrete path that ran around the stadium outside the hedges that all would need to be taken out as part of that cost."

Price says, "The initial installation cost was \$1.4 million. The removal of the synthetic would probably be another \$500,000, if they were going to get the field back into natural grass in playing condition."

Price pointed out that the Baltimore Ravens and Ole Miss had gone from a synthetic field back to natural grass, but each had used the synthetic field for ten years or more, spreading the costs over that period. He says, "UNC was only going to keep a synthetic field for one or two years. That cost—at \$1.4 million up front and \$500,000 on the backside—was a swing close to \$2 million."



Removing the old sod.



Off the field view of the resodding process.

Carrick says, “Yet, despite those cost projections, we went for years thinking synthetic was the only option. Then, as we got closer to the start of construction, I started thinking about the possibility of keeping it natural. I started talking with our team’s strength and conditioning coach and with our trainers and they all preferred natural grass. So, then the question was, ‘Is there any way we can keep natural grass?’ My first phone call was to Chad. We talked a couple days and figured out we probably could.”

Price says, “The money they would be putting into going synthetic would buy a whole lot of natural grass sod. So, we looked at the costs of using the GameOnGrass and replacing the field before home games.” Carrick adds, “Doing the math with Chad, we determined that the worst-case scenario, that we would need to resod the entire field for all seven of the 2017-2018 home games, would come in at about \$1 million. So, we could keep it natural, resod the entire field for every game, and still save UNC \$400,000. Plus, there would be no added cost of removing the synthetic field.”



A closeup view of a section of GameOnGrass.

Getting Everyone’s Input

Carrick says, “We wanted to be totally transparent and let everyone have input. We knew we had a good plan for keeping natural grass in the stadium, but we wanted everyone to understand what it would take and why we’d go to the extra work to make it happen. That was key. We wanted everyone in the department on the same page. If half wanted natural grass and

half or so wanted to go synthetic, we’d have gone synthetic.”

Price says, “Casey and I went to his boss, Mike Bunting, associate athletic director of facility planning and management, whom I’d also known and worked with for a long time, and said maybe you should consider staying with natural grass. Then we ran the numbers for him, showing that financially it would be a benefit, too.”

Carrick says, “So we shared the idea with Lou Hernandez, our head football strength and conditioning coach, and with Kenny Boyd, head athletic trainer for football, and they were all for it. Next, we met with Larry Fedora, head football coach and he said, absolutely, he’d rather play on natural grass and he was really excited about the possibility. So, Chad, Mike and I met with Bubba Cunningham and reported the consensus on staying with natural grass and ran the numbers for him. That’s when it all started to come together.”

Plotting and Vetting

Carrick says, “Knowing we had the support of the coaches and staff, we had to figure out how could we practice on Thursday night, remove the existing field, install the new sod, get it painted for the Friday afternoon practice and have the field game-ready on Saturday. Chad’s been doing the overnight change out for the Eagles, Redskins and Dolphins, so we knew it could be done with his staff and our staff working together. Then our team played on one of his GameOnGrass fields in Florida and they thought it was great.”

Price says, “The UNC administrators also had to answer to the administrators for the visiting teams who, when they learned of what was planned, would want to make sure they were putting their players on a good surface. When other teams inquired, the UNC folks could tell them they had just played on it in Miami and their reaction was that was a great field. Those types of experiences and comments helped a lot with the comfort level.”

Putting down a product that provides a safe, quality game field that can be played on immediately appeals to athletic directors, football coaches, college and NFL teams, and even project managers and concert managers, according to Price. "GameOnGrass is more than a niche product," he says. "It's a new tool that allows a facility to be used for multiple practices, games and other in-season events. A pro or college facility can work in a major concert, which gives their fan base the opportunity to use that venue in another way. With the money the facility earns from that, they can justify the financial upgrades that make their facility even more appealing to their fans and state-of-the-art for their athletes. The costs of replacing the grass, a couple hundred thousand dollars, is not a big number compared to what they can earn from the event. That puts it all into perspective: the natural grass is disposable; it's not personal; it's just money."

Price reports GameOnGrass comes in 3.5-foot by 45-foot rolls, 1.5-inches thick, weighing 17-pounds per square foot. The sand-base profile provides an infiltration rate of 11-inches per hour. According to data from Penn State's Center for Sports Turf Research, issued in October of 2014, its tensile strength is 88 percent greater and its shear strength 43 percent greater than 1-inch thick cut sod.

Price says, "UNC was vigilant in their due diligence prior to committing to stay natural and a lot of vetting was done. They called many of our clients and others who had played on our fields. They wanted to know how well we handled the fast turnarounds; how thorough we were in making sure the job was done correctly; and if all were satisfied with what we delivered. And it seems like everyone contacted was willing to give them that information, knowing that they would like to have the same information if they hadn't done it before."

Carrick also reached out to several of his peers within STMA and, as reported in an article he wrote for *Recreation Management*, stated, "I received valuable input and insights, which was critical. The support we received from people all over the country in our industry was surreal; everyone also wanted to see this project succeed."

The Master Plan

Carrick says, "Going synthetic would have allowed the teams to use the field whenever they wanted. We talked with all the teams and let them know that staying with natural grass would still allow them access to the field for their practices and games. If back-to-back practices were needed, we'd work with them to make that happen."

Price says, "Once UNC made the decision, an agreement was reached to provide, worst case, seven full fields of GameOnGrass. GameOnGrass is typically Northbridge, Latitude 36 or Tifway 419 bermudagrass and is usually grown for a specific use with a projected harvest date,



Installing the new sod.

although we try to keep inventory for emergency situations. Most of our GameOnGrass sales are based on an agreement that involves a non-refundable deposit for the grass. In most cases, our clients will request which variety they prefer and the quantity they'll need as much as 6 to 12 months in advance. We may get a call in an emergency where the client doesn't care which grass it is, they just need grass and will take what they can get. If that situation occurs, we always try to accommodate them and, more often than not, we can supply them."

For Carolina Green, having a long-standing relationship with a client and doing much of their work, as they are for UNC, means spending a lot of time there. Price says, "That means we also need to establish relationships with those involved in all the other connecting parts of the job, from local truckers and plumbers to places to sleep. Often the timing of the work we are involved in changes on short notice, or must happen at a specific date, maybe a holiday or graduation weekend. A lot goes into being able to make that happen."

A "little" reconstruction was the initial step. Carrick says, "Part of the project was renovation of the stadium. We spent about \$200,000 to take out the hedges, concrete and grass around the perimeter of the field and installed 30,000 square feet of synthetic surface in the areas we had cleared. We gained 15,000 square feet of space for practices, primarily for some of those grinding, stay-in-one-spot drills, and for some cart traffic."

Once the practice fields were removed, practices moved to the stadium field. Carrick says, "They were practicing on the stadium field all through June camps, summer workouts and the whole fall practice season."

That First Turnaround

After completing the pre-season and 25 fall practices, it was finally game week; and time to replace the field. Carrick says, “The first resodding was scheduled for Thursday, before the Saturday game. But with a hurricane brewing off the east coast and bearing down on Chapel Hill, they were predicting 1.5 inches of rain that day—and more if the hurricane path changed. I called Chad on Wednesday morning at 7:00 am and asked if they could move that up to Wednesday night after practice. That took unbelievable coordination on his part. They started harvesting our sod that day. The Carolina Green crew was here and ready to start tearing out the old sod at 6:00 pm, right after practice.”

Price says, “Casey and I knew that the first time we did the resodding all the administrators were going to be extremely nervous, and moving it up a day to avoid the potential of heavy rains probably made them a bit more so. They came to the field to check on us. We had the new rolls of grass going down and all was going well, so the administrators left about 10:00 pm Wednesday night, figuring we had it all under control.”

Carrick says, “Working through the night, we laid the last roll on Thursday morning around 8:00 am. When the administrators arrived not long afterwards, the new field was in place. Our grounds crew began laying out the stencils and painting, even a little before 8:00 am. We were painting the numbers while Chad’s crew was putting the last rolls in place. By 12:30 pm the field was ready.”

Price says, “Seeing is believing and that first resodding proved to everyone that the plan would work. The team got to practice on their field before the game after that first installation. That was good because the players got the feel of the new sod and weren’t worried about the surface being in good shape.” Carrick adds, “It rained 1.25 inches on Friday, after we’d had the practice. The field played perfect on Saturday, with no issues at all. After that, everyone had confidence in the process.”

Making the Call

After the first resodding, Carrick and his sports turf crew worked with the football staff each week to evaluate the field. Carrick says, “I’d walk the field with the football staff members and we’d determine how the field was holding up and what areas would require attention.”

Price says, “Casey and I would start talking about Tuesday to discuss their needs. He’d tell me, ‘I think we’re going to need to do the whole field, or the middle third, or I think we’re going to be okay.’ We needed to be on standby. Casey and I would coordinate the best time to do the work and we’d be ready to roll with the people we’d need to get the job done.”



Field area preparation for a partial resodding.

Carrick says, “Working with Chad was almost a partnership. There were times we’d planned for them to come on Thursday and I’d need to call and say we’ll need you on Tuesday. He’d pull some of his crew from other jobs to get it done for us. It helps that they’re two hours away from us, but I know he does the same thing for his other clients. We did really well in the fall of 2017. The weather was great when we did the resodding. We had an unseasonably warm October and not too many rainy days after one of the wettest summers on record. That played a huge factor in recovery time after practices and games.”

Carrick reports, “We ended up doing three full replacements and replacing the middle third twice. When the football season was over, we’d used half the amount of sod we’d anticipated in our worst-case scenario and spent about \$500,000. Financially it was a huge win and the football staff was pleased with the safety and playability and the season.”

Price says, “While the contract wasn’t fulfilled because they didn’t need as much grass as we’d needed to prepare for resodding the full field seven times, the open communications and working so closely together allowed us to find other options to sell that grass.”

Carrick says, “At one point, Chad had another university that had an unscheduled resodding need and he called us to see if they could use some of what we had contracted for, and we said sure. Once we realized we wouldn’t need all the sod, we released it to Chad hoping that even though much of the football season had passed he’d still be able to find other buyers.”

How about 2018?

Carrick says, “This go-round, the weather was not cooperative. We had the sixth coldest winter in the last 150 years. Bermudagrass doesn’t like that. Then it was

cold and wet through most of spring football practice, which didn't help. Then, due to delays on the construction projects, we hosted our men's and women's lacrosse practices and games during the spring of 2018. The field took more of a beating."

There's a lacrosse story, that Carrick says, "Was not at all funny when it happened; but looking back, it is funny now. We held graduation on our Kenan Memorial Stadium field, which we always do, and had the big stage up for over a week. We had planned to strip out the old sod, grade, and then resod right afterward, to let the field grow in for the summer.

"Our women's lacrosse team was competing in the NCAA Tournament. They'd played their first round at a local high school on a Field Turf synthetic field, but a nice one. Our coach prefers to play on grass and on campus and asked us it would be possible to play the second game on the Kenan field. She really wanted to take her team to the Final Four. We told her the field would be in bad shape, but when we walked the field with her, she said, 'It's not the perfect field that you guys usually have, but we'd prefer to play on it.' If we thought the field wasn't ready safety-wise, we wouldn't have agreed, but though it didn't look the best, it was safe and playable. So we decided not to resod it with that game three days away. That not only gave them natural grass but put them on our campus in our stadium which was great for the fans—and for the team with the fan support. They were ecstatic to play in the stadium for that game—and they made it to the Final Four."

Here We Go Again

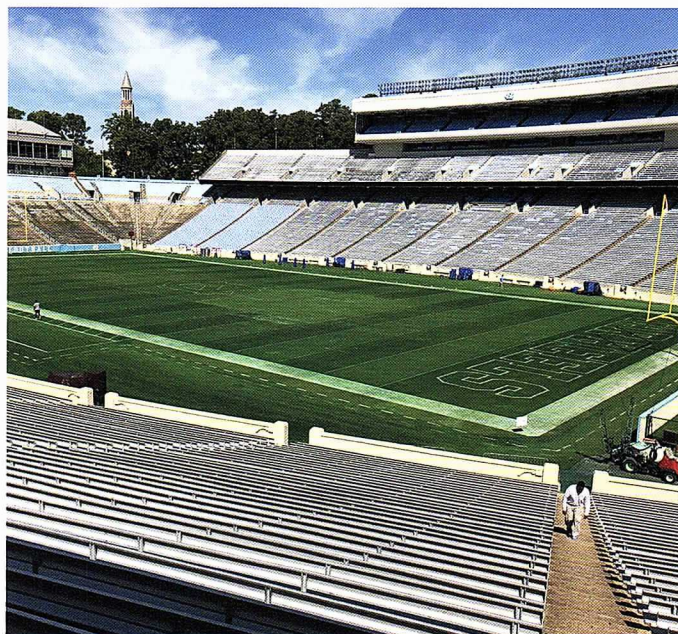
Shortly after that lacrosse game, they did resod the field for the summer. Carrick says, "We were anticipating the new practice facility would open in August. Construction delays prevented that. So we used the game field for practices throughout August."

Carrick tracked Kenan Memorial Stadium field use from August of 2017 through August of 2018: football practices – 111; football games – 7; football summer/winter workouts – 99; and lacrosse games/practices – 24; for a total of 694 hours of field use.

Carrick says, "We didn't know what we'd need for the stadium field beyond resodding it for our first home game, which was scheduled for September 15. The world we'd been living in made it hard to plan, because so much depends on the weather. Not knowing if we'd need one field or four, we reached out to Chad again, and he saved GameOnGrass for us." Price adds, "We went into the 2018 season with the same game plan; knowing it would take a lot of communication with tight scheduling, but also knowing we could make it work."

Carrick says, "It had been so wet here and more rain was predicted, so we moved that first resodding from Thursday, September 13, to Monday, September 10. Then the September 15 game with the University of Central Florida was canceled because Hurricane Florence was moving in."

Hurricane Florence hit the coast of the Carolinas with driving winds and heavy rains, retaining power as it moved inland. As Carrick was assessing storm damage for the UNC administrators and for FEMA, he reported, "We were okay. The damage was not terrible on campus, but we had about nine feet of water on some of our fields off campus. Those along the coast and to the east of us were hit much harder."



The partial resodding is complete.

Despite the storm, the football game between UNC and the University of Pittsburgh was played on the stadium field on Saturday, September 22. Carrick says, "Because of the cancellation, that was the first home game of the season and all went well. We did a middle of the field resod for the October 13 game against Virginia Tech and a complete field resod for our November 3 game against Georgia Tech."

Carrick reported the decision was made to finish the year with practices and games on the stadium field and open the new practice facilities in the spring of 2019. Price adds, "Casey and I could both see that potentially developing and looked at the worst-case scenario, knowing if it would be the full season at the stadium, the GameOnGrass would give us the flexibility to make it work." Carrick reports, "We didn't use any new sod for the November 17 game. For our last home game, on November 24, we resodded 26,000 square feet down the middle of the field."



The partially resodded field is game ready.

Take-Aways

Carrick says, “It would have been a lot easier for me and my staff to go synthetic, but we wanted to do what was safer for the players and we wanted to give them the playing surface that they really wanted. It’s been a long haul. Chad and his crew and those on my staff have really gone above and beyond to make it happen; working overnight and not seeing their families for a day or two. But everyone knew why we were doing it; and everyone was on board with doing it. It has definitely been worth it.”

Carrick adds, “The main take away is the importance of the communication, both internally within the University sports staff and administration, and the communication with Chad and his staff. We let Chad help us, taking his advice on many things because of the knowledge he has built through both growing the specialty sod and doing the field construction. People in our industry need to trust in the companies they work with and take advantage of the resources available to them. We couldn’t have pulled this off without that.”

Price added, “UNC was forward thinking and there was a level of trust, with Casey and me and Carolina Green, that we could work together to make it happen. It took both that confidence and forward thinking for UNC to make the decision to stay with natural grass. It probably would have been easier to go synthetic, but the coaches and trainers wanted to keep a natural grass field and Casey and his staff wanted to make that work for them. In the end, they all wanted to keep the natural grass.”

That the results provided the best possible playing surface was further confirmed as Kenan Memorial Stadium at UNC and Casey Carrick, CSFM, and his staff earned STMA’s 2018 College and University Football Field of the Year honors.

Suz Trusty is co-editor of *Turf News*.

