

**GOLF COURSE**  
INDUSTRY  
**2007** **Builder**  
**Excellence**  
**AWARDS**

The GCI staff presented the 2007 *Golf Course Industry* Builder Excellence Awards at the Golf Course Builders Association of America's awards dinner, which occurred in conjunction with the Golf Industry Show in Anaheim, Calif. Four awards were presented. SEMA Golf won the Creative Award for best new construction with Toscana Country Club in Palm Springs, Calif. Landscapes Unlimited won the Heritage Award for best reconstruction with Fiddlesticks Country Club in Fort Myers, Fla. Aspen Corp. won the Legacy Award for best renovation with The Old White Course at The Greenbrier in White Sulphur Springs, W.Va. And Heritage Links won the Affinity Award for best environmental project with Liberty National Golf Club in Jersey City, N.J. The following four articles depict these award-winning projects.



The South Course at Toscana Country Club features lakes, streams, waterfalls and palm trees set across newly created rolling terrain. Photo: Joshua Klyne



# A FIRST-CLASS facility

Attention to detail and addressing issues trump weather and tragedy to complete a high-end development project

BY DOUG SAUNDERS

In 2003, William Bone, founder and c.e.o. of Sunrise Co., set the ambitious goal to create the finest private equity golf club in a region that's already home to some of the most prestigious golf addresses in the world: Palm Springs, Calif. Bone owned a prime 640-acre parcel of land in the Coachella Valley since 1985 and, after several tries during the past few decades, he was ready to make that dream come true.

Bone's vision included a luxury residential community, 36 holes of golf (27 of which are complete to date) and all the amenities expected at a first-class facility. He thought obtaining the services of designer Jack Nicklaus would provide the project instant recognition.

That vision became a reality when Toscana Country Club opened for play December 2005 after a 14-month construction process managed by Scottsdale, Ariz.-based SEMA Golf. Not only did SEMA build 18 holes of golf, water features and bridges in 14 months, it completed another nine holes within budget while sharing the site during the creation of the housing infrastructure.

"Many builders in the industry were interested in this project because it was going to be such a high-profile job," says Bob Steele, president of SEMA. "We were fortunate to be awarded the contract and spent three months planning and meeting with various team members before we even began work."

The relatively flat, sandy land actually had a cross slope of 200 feet, and more than six

million cubic yards of dirt were moved during the mass excavation to prepare the site for golf course and home construction during a four-month period.

Nicklaus designed two distinctly different types of golf courses for Toscana. The South Course, which was built first, is a classic Coachella Valley-type course featuring many lakes, streams, waterfalls and palm trees set across newly created rolling terrain. The North Course is more of a desert-type layout featuring numerous rock outcroppings with green fairways as sharp contrasts to the desert terrain that frames each hole.

"These two styles called for carefully following the grading plans to create the proper perspectives," Steele says. "One of the enjoyable things about working on these flat sites is using machines as creative tools to develop interesting landforms. The desert is a palette, and our shapers become the artists."

Building Toscana was the second collaboration between Nicklaus and SEMA, who built the Outlaw course at Desert Mountain in Scottsdale, which won the Creative Builder Excellence Award in 2005 ("Making it happen," March, p. 32). Having worked with the Nicklaus Design team before also was an advantage for SEMA.

## OPEN LINES

The key aspect of such an ambitious project was developing a clear line of communication between the developer, the design team, and all





2007  
Creative  
Award Winner

**AT A GLANCE**  
**Toscana Country Club**

**Location:** Palm Springs, Calif.  
**Type of project:** New construction  
**Cost:** \$11.7 million  
**Construction started:** November 2004  
**Course opened:** December 2005  
**Builder:** SEMA Golf  
**Architect:** Nicklaus Design  
**Golf course superintendent:** Rick Sall  
**Owner:** Sunrise Co.

Original plans for Toscana called for about 160 bunkers, but as Jack Nicklaus and William Bone changed things when visiting on site, the project finished with 223 bunkers.  
Photo: Joshua Klyne

of the subcontractors whose input and commitment were critical for success. Gary Peterson, golf course construction manager for Sunrise Co., oversaw the construction.

"We've done many projects similar to this but not on this grand of a scale," he says. "I had a solid idea of where the numbers should be when we took this project out to bid, and every builder was interested in being a part of the project. We settled on SEMA after several interviews. This was my first experience working with SEMA, and I was impressed with its attention to detail and willingness to address issues as they arose."

It was Peterson's position to formulate a time-line schedule for the project and then focus on keeping things moving along. Because so many facets of the project were dependent on the production of each subcontractor, it was a daunting task. Peterson held daily meetings with Brandon Steele, the construction superintendent for SEMA, and the various subcontractors. He also held regular meetings with Nicklaus site coordinator Tom Soileau, designer Jon Garner and Brandon Steele.

"SEMA Golf's strong point was always be-

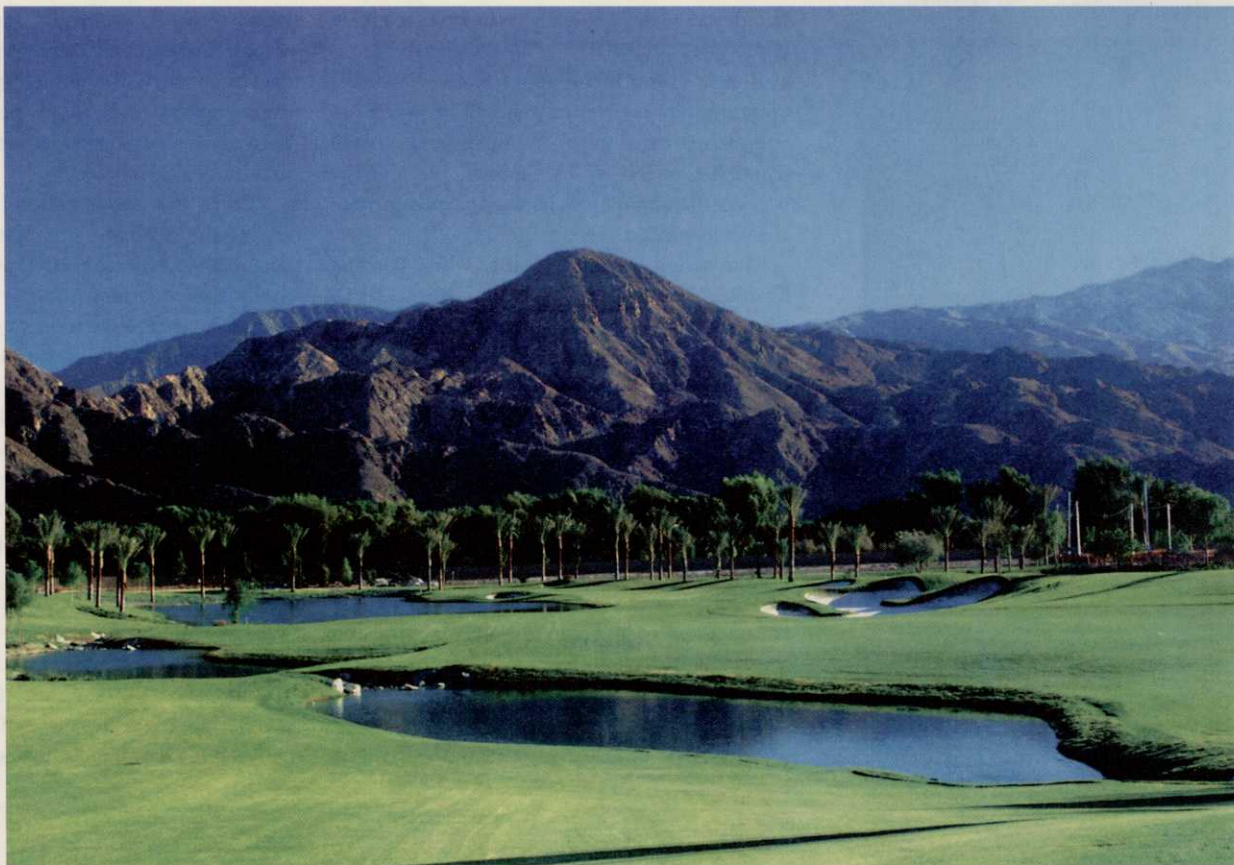
ing able to take care of simple changes as they arose," Peterson says. "For example, the original plans called for about 160 bunkers, but as things changed during on-site visits by Jack and Mr. Bone, we ended up with 223 bunkers. But those changes never slowed down the progress because SEMA took care of these types of changes immediately."

Through a clear line of communication and detailed paperwork, change orders were kept to a minimum, which helped keep the job within the \$11.7 million budget. Progress continued on time despite having almost 1,000 workers on site during the height of construction.

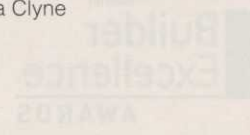
"Having worked with Nicklaus before helped us to understand the process from the designers perspective," Steele says. "We learned what things the on-site designer could deal with and what things would need Jack's input. This helped us have things ready before Jack's visits, which would help him with his task."

**MOTHER NATURE**

Weather can be a factor in any construction project, and in the Palm Springs area, the biggest







SEMA spent almost \$3 million on continuous dust control using water trucks and irrigation lines. Photo: Joshua Clyne

challenge is wind. On a site where one can bore down through 10 feet of pure sand, dust control can become a considerable expense. SEMA spent almost \$3 million on continuous dust control using water trucks and irrigation lines.

Another important feature of Toscana is the separation of the golf courses from the home sites. The course is set down into the terrain, and the home sites sit on top of bluffs, which, while expensive, provide better site lines for the golf holes and home sites.

**A TRAGIC LOSS**

The development of the awarded-winning project didn't go without a tragic loss, however. Tragedy struck the project as a result of the untimely death of Brandon Steele just a few months before the project was completed. Brandon Steele's contagious enthusiasm had inspired hundreds of workers on the site for months. After his passing, every subcontractor involved took the initiative to continue the job as a tribute to his memory. It was this type of commitment that helped carry the project along to the completion of the first 18 holes in November 2005.

**LASTING MEMORIES**

Overall, SEMA did an excellent job throughout the project, says Rick Sall, golf course superintendent at Toscana who worked on the project through the construction and directed the final grow-in.

"We got pressed toward the end of the job to have enough time to establish the Bermudagrass sprigs, and SEMA made extra efforts to get

this process going," Sall says. "We managed to get sprigging done around the end of August and were able to have puttable surfaces by the middle of October."

SEMA completed the South Course and the first nine holes of the North Course on budget and is discussing completing the North Course with Sunrise.

"SEMA Golf performed admirably throughout this project by making sure all of the work was completed as each hole was signed off," Peterson says. "The work was completed in a timely

fashion to allow for sprigging prior to growing season. This is why we are discussing the North Course completion with SEMA."

Since opening, Toscana has established itself as a premier club in the region. It's success can be gauged in several ways, one being that many new members have come from the other established golf clubs in the area.

Looking back on the project, one of Bob Steele's lasting memories always will be coming through the front gates as the project was nearing completion.

"I've been building golf courses for 20 years, and I've never seen one that was so complete at the end," he says. "With the hundreds of mature palm trees and the massive entry, it seemed as though the complex had been there for 10 years. It was a project that holds many memories, both good and bad, and one that I'm proud to say we were a part of." **GCI**

*Doug Saunders is a freelance writer based in Truckee, Calif. He can be reached at dougs@sierra.net.*

**What the judges said**

"An excellent job on a very demanding site with a very demanding architect. From all reports from the architect, owner and superintendent, it coordinated the job very well. All parties were happy with the finished project, and the pictures that were provided would attest to the good job it did."

— **Mike Bylen, owner of Pine Trace Golf Club in Rochester Hills, Mich.**

"The builder worked for a very demanding owner and architect. Everything was meticulously done on time and on budget. It had a large design/construction/ownership team, and they all worked well together. The return on investment was very good."

— **Terry Buchen, president of Golf Agronomy International in Williamsburg, Va.**

"This was a good situation in which the owner and architect raised their demands and expectations, and the builder just went ahead and beat those."

— **Jeff Brauer, golf course architect and president of GolfScapes in Arlington, Texas**

"Not only did it have a very particular architect in Nicklaus, it had a very particular owner. The builder completed the job within budget and did it within the time frame, and the owner got a wonderful return on its investment. The builder received excellent reviews from the architect, owner and golf course superintendent."

— **Joe Livingston, CGCS, River Crest Country Club in Fort Worth, Texas**



DESIGN CASE STUDY

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# RESTORING A classic

Aspen Corp. helped restore The Old White Course at The Greenbrier. Originally, the course was designed by C.B. MacDonald. Photo: The Greenbrier



2007  
Legacy  
Award Winner

“It’s like finding an old car in a barn. If it’s a Duesenberg, you don’t want to try to put a Chevrolet motor in it. You want to restore your Duesenberg.”

– Lester George, golf course architect

## A BUILDER OVERCOMES INCLEMENT WEATHER AND TIME CONSTRAINTS TO RESTORE A RESORT COURSE

BY BOB SELIGMAN

When you’re dealing with a classic – whether it’s something like a Duesenberg or an old golf course built by a master architect – you have to be careful. Restoring a classic to its previous grandeur can be extremely slow, time-consuming work.

Therefore, it would be normal to expect that when The Greenbrier opened up the barn, so to speak, in 2002 to restore its classic C.B. MacDonald-designed and Seth Raynor-modified The Old White Course, the resort in White Sulphur Springs, W.Va., would undertake the task with some trepidation.

Resort management wanted to make sure the restored version of the course had the same flavor and character as the original, with an increased level of challenge to entice and satisfy golf’s current premium on distance.

“It’s a course that people have loved to play for 90 years,” says Robert Harris, director of golf at the resort. “It’s like an old shoe or glove. It just feels very comfortable. The Old White Course has fond memories for generations of Greenbrier guests. We have three or four members that are former presidents of the USGA. When you’re going to renovate something like that, you have to be very careful.”

Especially when research showed the initial course had been lost.

“It had the modern, TV-look of Firestone (Country Club in Akron, Ohio) – the tree lined fairways,” Harris says. “Most of America’s courses try to emulate Augusta or Firestone in the ’50s and ’60s, but what we had here was basically an open farm that was broken up into hundreds of features – bunkers, creeks, mounds of all sorts – and all those went away.”

### ADVERSE CONDITIONS

Management committed itself to restoring The Old White’s distinctiveness. Files and data gathered from a historian on property were used during the research process. Aerial photos taken throughout a two-year period depicted the course MacDonald originally created. Lester George, the architect from Richmond, Va., who was hired to do the restoration, remained true to MacDonald’s elements and vision. George, president of George Golf Design, compares the work done on The Old White Course to performing eye surgery.

“Properly done, restorations are very tedious and difficult,” he says. “They take a lot of time, research and planning. If you’re building a new course you pretty much have your way with the site and put in whatever you want to interpret. When you’re doing a strict restoration, it’s difficult, time consuming, long-hours-type work. It’s a very delicate operation and process.”





At times, Aspen used more than 2,000 man-hours a week, which is more than double the norm, for the project. Photo: The Greenbrier

Especially when you're dealing with adverse conditions. Because of the popularity of The Old White Course and the fact The Greenbrier's management didn't want it closed during the season, the restoration was done in the late fall and winter throughout a four-year period from 2002 to 2006. Generally, work was started in mid- to late October and ran until the course reopened about the second week of May. Snow, sleet, rain and cold temperatures were constant combatants that had to be dealt with. The weather and time constraints were the biggest challenges, says Ronnie Adkins, vice president of Daniels, W.Va.-based Aspen Corp., the builder on the project.

"Those are the two factors that were always driving the project and how we approached things," he says. "The time frame wasn't going to change. They needed the place open for their guests in the spring. The weather was totally unpredictable, so you had to be prepared for every possibility that would come along, and, of course, it did."

Aspen elected to man-handle the situation by using an enormous amount of man power. At times, the company used more than 2,000 man-hours per week, which is more than double the norm,

#### AT A GLANCE

### The Old White Course at The Greenbrier

**Location:** White Sulphur Springs, W.Va.  
**Type of project:** Restoration/renovation  
**Cost:** More than \$5 million  
**Construction started:** Fall 2002  
**Course opened:** May 2006  
**Builder:** Aspen Corp.  
**Architect:** Lester George  
**Golf course superintendent:** Pat McCabe  
**Owner:** The Greenbrier



REPAIR CASE STUDY  
GOLF COURSE  
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Because of the popularity of The Old White Course and the fact that The Greenbrier's management didn't want it closed during the season, the construction work was done in the fall and winter throughout a four-year period. Photo: The Greenbrier

for the project. Workweeks ranged from 70 to 90 hours, seven days a week, with about 60 people on the project. There were no days off until the greens were shaped, which had to be done before Nov. 25 to allow for proper grow-in time. Light plants, which Adkins says are unusual in the golf business, were used so work could start earlier in the morning and continue late at night.

There was plenty of work to do and challenges to meet. Turfgrass had to be delivered in the right quantities at the right time. Irrigation had to be charged and tested even though it was winter. New cart-path construction and relocation was immense. Existing underground utilities were discovered along with utilities that weren't identifiable before work began. The resort's internal roads had weight restrictions that required the use of additional trucks to get the necessary materials to the site on time. Flotation tires were used on equipment to eliminate as much damage as possible. Sod had to be contract grown and delivered inside an enclosed trailer to avoid freezing.

**IT'S ALL GOOD**

The project had to be done in a way in which The Greenbrier didn't get too far ahead of itself. The four-phase operation was completed on time, and although more than \$5 million was spent, the restoration remained on budget.

The project has made The Old White a much better course, Harris says. Before, most of the

holes weren't memorable, and they would blend together in a golfer's mind. But not now.

"They don't all look the same," he says. "There are several open creeks that weren't there before. The mound work and many of the cross-bunkers were put back in. There's 18 holes of decision-making. There's the risk, there's the reward, there's the safe route. It's a little harder to score on the longer shot."

Everyone is happy with the outcome, says Pat McCabe, director of golf maintenance.

"It worked out great," McCabe says. "Our golfers enjoy the course. You've got to think now when you play. We initiated some fine fescue grasses and some naturalized areas that's given the golf course added character. C.B. MacDonald and Seth Raynor would be very happy if they played it." **GCI**

*Bob Seligman is a freelancer writer based in Suffren, N.Y. He can be reached at bhseligman@aol.com.*

**What the judges said**

"There was great coordination and order from an owner's perspective. The course opened for every season, as well as parts of the resort that had to be opened. It was a very complicated project, and it was stunning to do that, especially in the winter."

— **Charlie Birney, managing director of The Brick Cos. in Edgewater, Md.**

"It did a good job of coordinating a four-year period restoration project dealing with many different challenges, not the least of which was weather and traffic patterns for nongolfers, moving roadways and dealing with existing walking paths. Another challenges was time constraint of getting this work done and seated so the following season's play could be realized."

— **Mike Bylen, owner of Pine Trace Golf Club in Rochester Hills, Mich.**

"It had tough time constraints building and renovating the golf course during the off season and during the wintertime, and the company did it on time and on budget and had a good return on investment."

— **Terry Buchen, president of Golf Agronomy International in Williamsburg, Va.**

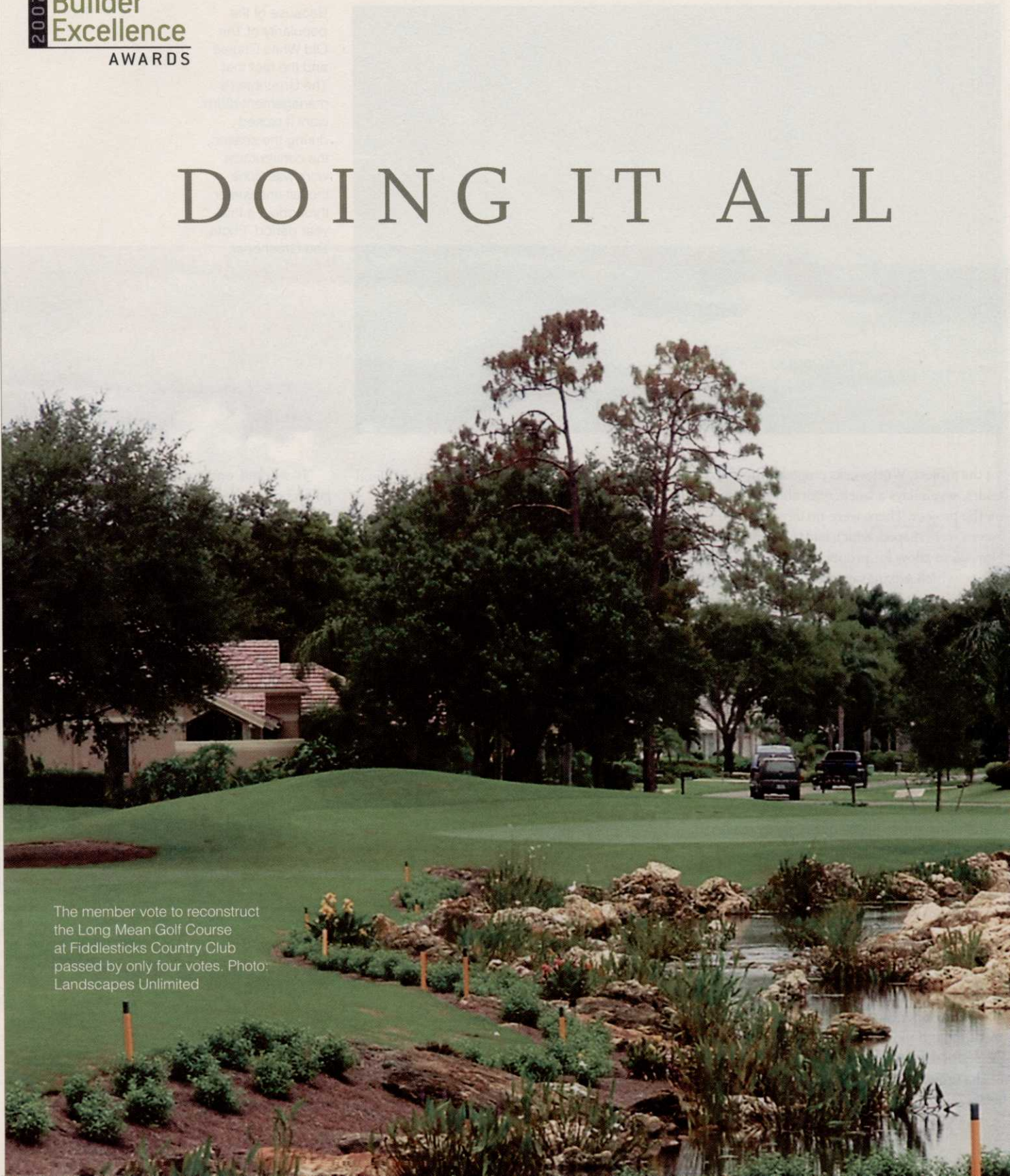


DESIGN CASE STUDY

GOLF COURSE  
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# DOING IT ALL

The member vote to reconstruct the Long Mean Golf Course at Fiddlesticks Country Club passed by only four votes. Photo: Landscapes Unlimited





2007 **Heritage**  
Award Winner

## A builder takes a turnkey approach and battles hurricanes to reconstruct a Florida course

BY MICHAEL COLEMAN

**A**fter successfully reconstructing the Long Mean Golf Course, members of Fiddlesticks Country Club in Fort Myers, Fla., feel like they've turned back the clock 23 years when they step on the first tee. The restoration is an accomplishment that earned Landscapes Unlimited a vote of confidence from the most demanding client: the club's members.

"The members voted to do this, and it passed by four votes," says Greg Pick, executive vice president of Fiddlesticks. "Now, you can't find anybody that voted against it."

Unlike projects that disintegrate into squabbling among various contractors involved, this one was marked by teamwork and exceptionally good communication between contractors and club membership.

Landscapes Unlimited had responsibility for the entire package, including engineering, architecture, design, purchasing, construction and grow-in. With its background of building golf courses, some of which it owns, Landscapes has the resources to manage the additional risk of the design-build approach.

"We learned from our own experience," says Leonard Schilling, a regional manager for Landscapes based in Southern Pines, N.C. "We're better able to identify many pitfalls earlier."

While a company's capabilities are crucial, it all boils down to people, says architect Ron Garl of Ron Garl Golf Design based in Lakeland, Fla.

"They sent a very capable golf course superintendent down there," Garl says. "They picked CT Shaw, who was the right one for the job. He did a great job and was an excellent choice."

Alongside Shaw was golf course superintendent Ryan Costello, who was brought in by the club to assist with the construction phase.

"He and CT were joined at the hip for the entire project," Pick says. "Ryan would write a weekly report for the members so they knew what we were doing. It eliminated a lot of controversy."

In the eyes of the members who voted against it, the polished communication helped the project evolve from a rough stone into a crown jewel. Having a primary contractor also contributed.

"Having a contractor that has the capability to oversee

all aspects of a job is fantastic for the club," Costello says. "You don't have to worry about who to call. It's their job to handle everything."

The original contract stated the guaranteed maximum price to be \$4.9 million and the designer-builder to be responsible for additional costs except for scope changes. The final cost was about \$5.2 million after several club-approved scope changes and improvements.

### AT A GLANCE **Fiddlesticks Country Club**

**Location:** Fort Myers, Fla.

**Type of project:** Reconstruction

**Cost:** \$5.2 million

**Construction started:** February 2005

**Course opened:** November 2005

**Builder:** Landscapes Unlimited

**Architect:** Ron Garl Golf Design

**Golf course superintendents:** CT Shaw and Ryan Costello

**Owner:** Club members





During the reconstruction, Landscapes Unlimited was responsible for engineering, architecture, design, purchasing, construction and grow-in. Photo: Landscapes Unlimited

#### NOT SO EASY

Even though Landscapes' turnkey approach made certain aspects of the project easy, Mother Nature wasn't so helpful. The crew at Fiddlesticks Country Club survived repeated lashings from hurricanes, but with the help of Landscapes, it restored the course to prominence within a tight schedule. With some of the turf eradicated because of a fall pesticide spraying, the construction phase began Feb. 14, 2005. The course was finished and grow-in of the Tifway 419 Bermudagrass complete when another hurricane came lumbering through and conflicted with the opening.

Pick toasted the team involved for collaborat-

ing to overcome the hurricanes that swarmed the area from day one until the opening Nov. 3, 2005. Pick's crew rebounded quickly from the first blow from Hurricane Charlie in August of 2004.

"We had a lot of clean up to do, and we just got it done," he says.

Much of Costello's work early on was coordinating the cleanup of 500 trees blown down by Hurricane Charlie. Once the cleanup was complete, the project progressed more smoothly. Fiddlesticks' membership helped with that progress. It was represented by two members with construction backgrounds, Hap Skillman and Frank Scott. They helped Costello track the progress of the work and communicated,



A cleanup of 500 downed trees as a result of Hurricane Charlie affected the reconstruction project. Photo: Landscapes Unlimited

FROM



“You really had a good mesh of the right people and personalities,” Schilling says. The group Fiddlesticks put together with members Skillman and Scott was terrific because they knew construction and how to work through challenges, Schilling says.

Garl, who designed the course 25 years ago, was brought back for the reconstruction to help the club retain the heritage of the course. One of the enhancements Garl likes is a new waste area that swings around the first fairway, adding a wow factor to the opening hole. The waste area mimics the soft dunes of inland Florida.

“If you go inland, that’s what happens to the natural land,” Garl says. “Mother Nature is our best guide.”

Members are enjoying one of the better courses in Florida since the reconstruction.

“It truly is the flagship of golf in Southwest Florida because it withstood the test of time,” Garl says. “We’re excited to have a job done that well by a great team.”

*Michael Coleman is a freelance writer based in Kansas City. He can be reached at [mike.coleman@comcast.net](mailto:mike.coleman@comcast.net).*

almost daily, with the team from Landscapes, including Shaw and Oscar San Juan, the irrigation superintendent.

“Just the way the three of us worked together was far and away the best part of the project for me,” Costello says. “No one was trying to be special. We were all doing our part. That was fantastic.”

In addition to the hurricanes, there were other challenges:

- Shrinking greens and bunkers. Greens suffered a loss of pin placements under normal maintenance. The bunkers and greens were restored to the original specifications while adjusting for TifEagle greens.

- Outdated irrigation. The original plan was to replace two old pump stations and improve water capacity. During planning and design, it was determined that one of the pumps also served the Wee Friendly course at the club. The team determined both courses’ water problems could be solved by installing a larger pump station at that site and leaving the second pump station in place.

- Deteriorated cart paths. Old paths were replaced and waste areas were utilized to handle much of the cart traffic.

- Stagnant canal. The third hole was improved by adding a series of waterfalls to a revamped creek. Native limestone found during construction was used for landscaping the signature hole.

**A DIFFERENT APPROACH**

All members of the team working together was crucial because the approach to the project was so different.

“Having Landscapes Unlimited be the only go-to, I’d never heard of that before,” Costello says. “It was very interesting having one person in charge of construction, architecture, grow-in, grassing – just every aspect of it.”

Landscapes’ expertise in multiple areas made the project run smoothly, Schilling says.

“It was just a matter of focusing the resources we already had into that, and we felt we could do it pretty successfully,” he says.

Knowledgeable club members also were helpful.

**What the judges said**

“There was a unique relationship in which Landscapes actually became the owner agent and was the only go-to company through which the ownership or membership worked. Landscapes then went out and contracted with the original architect, Ron Garl, irrigation architects and anyone needed to provide engineering or landscape design for the project. It was a success because they created a good product at an agreed upon price in a timely manner.”

— **Terry Buchen, president of Golf Agronomy International in Williamsburg, Va.**

“It’s pretty remarkable that it turnkeyed the job from design to actual grow-in. It looks like the owner is very happy with the outcome. They’re making money on their investment, which shows the builder accomplished its job.”

— **Joe Livingston, CGCS, River Crest Country Club in Fort Worth, Texas**



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# FROM SUPERFUND TO supersite



On the course at Liberty National Golf Club, there's as much as 45 feet of fill above the cap in some spots. Photo: Philip Sokol



About three million cubic yards of soil were brought in to cap the site before construction. Photo: Philip Sokol



## A development project turns an EPA waste site into a golf course gem

BY GCI STAFF

**R**eal estate's popular idiom stresses the importance of location, and Liberty National Golf Club in Jersey City, N.J., might have one of the best.

On the banks of the Hudson River, in the shadow of Manhattan's skyline and under the watchful eye of the Statue of Liberty sits Liberty National Golf Club. More than a dozen years went into developing the course that stretches as long as 7,500 yards.

Professional golfer Tom Kite, who teamed with golf course architect Bob Cupp to create the course, dates his involvement with the project to 1992 when he participated in a corporate outing at the TPC at Avenel for a law firm in Washington. There he met Rusty Bayliss, vice president, commercial, for the London and Scottish Marine Oil Co.

"He had a dream of turning this site into something useful," Kite says. "It was a wasted piece of property."

Cupp refers to the site as 100 years of industrial sins because of its history as an oil refinery and Army base.

It's one of those once-in-a-lifetime projects because of its location, says Rowland Bates, executive v.p. and executive project director of Willowbend Development, owner of the club.

"This is something special and won't come along again, I think," he says.

When Dan Fireman, president and c.e.o. of Willowbend, first visited the site, there were

eight warehouses cluttering the view. Even then he could see potential.

"I came out, saw it and said 'wow,'" he says. "Without a doubt, the majority of the land was blighted. It didn't look good."

Jon O'Donnell, division president of Heritage Links, the builder, was in awe of the views when he first visited.

"It's the most spectacular view of any metropolitan city in the world for a golf course site," he says. "It was a tremendous site observing our bulldozers and finish tractors working in the shadows of one of the most visible attractions in the world – the Statue of Liberty."

### ATTENTION TO DETAIL

About three million cubic yards of soil were brought in to cap the site before construction. Then another one million was imported to enable the architects to establish the final contours.

"It took a lot of time, thought and effort to make sure this thing was contained," Fireman says. "But there's nothing that's extremely toxic under the site."

Being a brownfield site, plans had to be exact.

"We had to follow very specific designs," Bates says. "We needed to know exactly where we were on the site. It was an extremely difficult and costly project from that aspect ... and we did it in record time."

The drainage installed throughout the course, especially the driving range, was very deep at times, O'Donnell says.

"Heritage Links monitored all installation and exact location of installation with their GPS survey instruments so that depths – because of environmental capping – weren't exceeded," he says. "A liner was installed during the environmental mitigation of the site and couldn't be penetrated during course construction."

When designing the course, Cupp says the team had to be extremely cognizant of the underground and couldn't go deeper, only higher, with features.

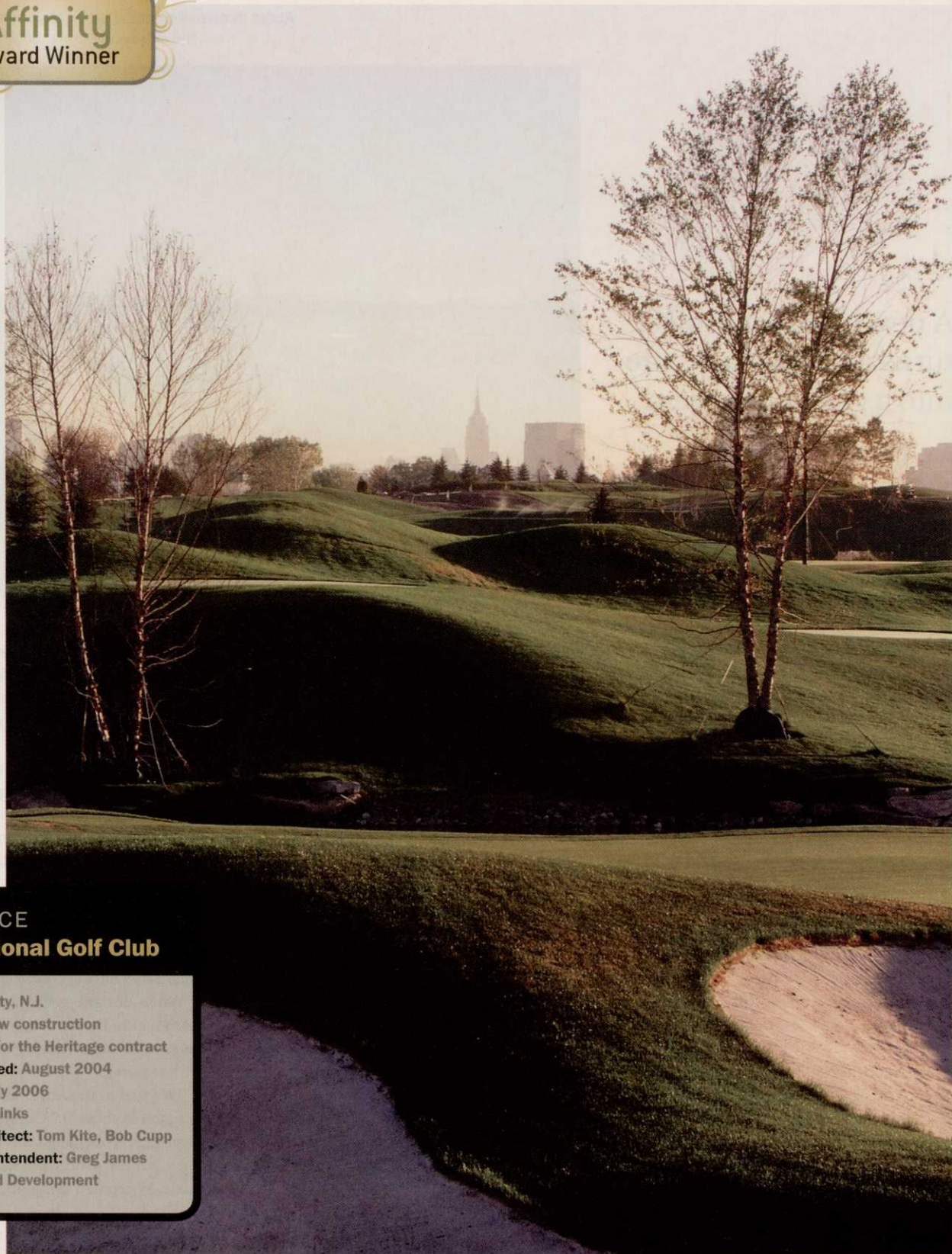
"We had to use our brains below the ground as much as above it," Cupp says, adding that the biggest type of change was altering or eliminating a bunker – no wholesale changes could be made. We routed this golf course until we were purple."

Kite, who says there's as much as 45 feet





Because the owner requested 11 to 12 months of grow-in time before opening, working hours increased to 80 a week for two months during the summer so the grassing could be completed in the fall. Photo: Philip Sokol



**AT A GLANCE**  
**Liberty National Golf Club**

**Location:** Jersey City, N.J.  
**Type of project:** New construction  
**Cost:** \$7.8 million for the Heritage contract  
**Construction started:** August 2004  
**Course opened:** July 2006  
**Builder:** Heritage Links  
**Designer and architect:** Tom Kite, Bob Cupp  
**Golf course superintendent:** Greg James  
**Owner:** Willowbend Development



of fill above the cap in some spots, says he's never been part of a project with such exacting specifications.

"We ended up with one of the most detailed sets of drawings that had ever been done," he says. "Once the plans were drawn, the golf course had little variation from what had been drawn. We really had to follow the plans. It's a good thing Bob and I are believers in the plan. It's expensive pushing paper ... it's a lot more expensive pushing dirt."

#### SOIL SALINITY, SCHEDULE

Being a reclamation site, the builders and designers had many problems to deal with. For golf course superintendent Greg James, it was countering the high salinity in the soil that was atop his list. Much of the capping materials were dredged from the bay and nearby rivers, so the sand and soil have high salt content. To combat this, James enlisted cultural practices of applying gypsum and PhysioCal to leach the sodium out of the soil. He conducted monthly soil tests that indicated everything was in normal range.

James says the 5,200 sprinkler heads were another big chore, but he has the benefit of an internship program to add qualified workers to his staff.

Having started work on Liberty National in August 2004 and faced with the task of completing grassing within a year, Heritage Links encountered tight deadlines. The crews – led by project manager Grayson Cobb and project superintendent Chris Veal – started working long hours (six days a week, 12 hours a day) in May and June. The exceptionally dry weather helped Heritage complete its tasks. Because the owner requested 11 to 12 months of grow-in time before opening, working hours increased to 80 a week in July and August so the grassing could be completed in the fall.

#### UNDER PRESSURE

All who worked on the project felt pressure to get the job done in a spectacular fashion because it's a high-profile job.

"The pressure to not screw it up – to do the best course – was huge," Cupp says.

"Both of us felt pressure," Kite says about he and Cupp. "But I don't put the word 'pressure' in a negative connotation. You put yourself in something exciting. It allows the adrenaline to start pumping. I put myself on the line because I love that feeling."

James admits to feeling pressure, but insists it's no different than what any other superintendent feels.

"In this business, everybody is under a lot of pressure no matter what," he says. "I put a lot of pressure on myself. If you have the resources – like we do – everything should get done and done right."

Fireman, who provides those resources, says excellent preparation relieves any pressure he might feel.

"It wasn't pressure, it was exciting," he says. "You get so focused on just trying to get it done."

#### MAJOR EXPECTATIONS

With an overall price tag near \$150 million, Liberty National wasn't conceived merely to host member-guest outings and weekend golfers. The membership cost of about \$500,000 will make the club exclusive, but playing host to the world's best golfers and the game's most prestigious events will place the club on the map.

"It's not a matter of if, it's a matter of when," Fireman says about hosting championships such as the U.S. Open or President's Cup. "But we're in no rush."

Kite says he and Cupp designed the course

with tournaments in mind – making space for parking, concessions, hospitality tents, grandstands and everything else associated with tournament golf.

"The location and site dictated the quality of golf course we built," Kite says. "Not every golf course has the opportunity to play host to [PGA and USGA] championships. This gave us an opportunity to think way in advance of our history, looking 20, 30, 40 years from now."

Cupp and Kite spent a lot of time to have the course ready to host a major tournament without having to do much of the extra work that goes into preparing for an event.

"It's like pulling off a 2.5 with a full twist in front of 100,000 people," Cupp says using a diving analogy. "This is my defining moment, and I don't plan on retiring."

And Kite puts Liberty National in a competitive light.

"Just as there are golf tournaments and major championships, there are golf courses and major golf courses," he says. "This is at the top of the list. This is the U.S. Open of golf course design." **GCI**

*Editor's note: A longer version of this article can be found on page 38 in the January 2006 issue.*

### What the judges said

"There was a stunning scope of work with the liner and some of the other pieces to that puzzle. It was just an overwhelming project in light of the 8,000 tons of disposal they took out of there"

— **Charlie Birney, managing director of The Brick Cos. in Edgewater, Md.**

"It's by far the biggest golf course construction that I have ever seen or heard of – all working with nine different entities trying to coordinate everything and building everything and doing it on time and on budget."

— **Terry Buchen, president of Golf Agronomy International in Williamsburg, Va.**

"Clearly this is a once-in-a-generation-type project. One that shows how golf can help recreate the environment, will be good for the environment and, of course, with the setting, which is spectacular but also difficult for construction and access."

— **Jeff Brauer, golf course architect and president of GolfScapes in Arlington, Texas**

"Not only did they have to deal with constructing a new golf course in a very tight and constricted area in New Jersey, it was also an EPA toxic waste clean up site. Throughout the project they had to be aware of any liners that were set in place to cap the toxic waste. They installed about 10 miles of pipe with no breaching of the liner. That with the amount of GPS work that would have to be done in importing, that shows that that project was pretty incredible."

— **Joe Livingston, CGCS, River Crest Country Club in Fort Worth, Texas**