



PHOTOGRAPHY COURTESY: BRUCE WOLFROM / ISTOCKPHOTO (PINE CONES & PINE ILLUSTRATION)

cussed the possibility of designing their very own course, utilizing the methods they had learned from some of the world's most respected designers. They were interested in many locations, but as they began to search for land, they realized just how challenging it is to find property suited for a golf course.

"We had to have land that was naturally laid out for the game of golf, which would cut our construction costs. It also had to have the right soil and elevation," says Wolfrom. "We'd seen hundreds of sites, but they were too low-lying, or their soil would be heavy clay, causing drainage problems."

But, one 400-acre property immediately caught their attention. Located in Hubbard Lake, Mich., a resort area they had frequented as children, the land featured majestic white pine and oak trees, as well as high terrain and light sandy loam soil, allowing Bruce and Clem to operate a course primarily designed by nature.

"I've always believed that nature is the best designer of the landscape," he says. "It's obvious that the contours of this land weren't made with bulldozers, but by Mother Nature."

Grand opening

The Wolfroms purchased the property in 1991 and, after 21 months of construction and renovation, opened White Pine National Golf Resort in September 1992.

From the back tees, the course measures 6,752 yards. Although White Pine is not remarkably long or narrow, its bunker placement and small, undulating greens offer even the most experienced golfers an examination of their skills.

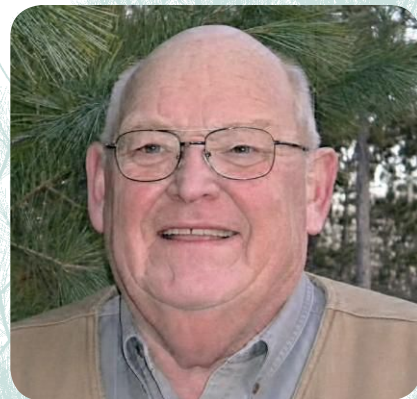
Featuring five sets of tees, the par-72 layout was designed to tailor to golfers of all experience levels.

"We're proud of the number of new golfers who have been introduced to golf at White Pine," says Wolfrom. "After 20 years, we're starting to see some of the kids who learned the game here, come back to their roots, so to speak, and bring their friends."

White Pine's greens stimp at 10 all season long. To provide further relief to inexperienced golfers, the course is particularly unusual for its lack of water hazards.

"Part of our design aesthetic was to eliminate water hazards. Besides the intimidation factor that water can add to casual golfers, there was a maintenance philosophy behind that decision," Wolfrom says.

Most courses with natural ponds or streams are generally located in valleys or other types of low-lying terrains, which are more difficult to drain. By excluding water hazards, White Pine does not require any drain pipes. In fact, with its high



"The great thing about owning and operating your own business is that you get to do everything — from overseeing the maintenance on the golf course to seeing to it that our bag drop staff is taking care of our customers."

— Bruce Wolfrom

terrain and natural drainage system, the course's turf is protected from disease and damage caused by torrential downpour and flooding.

"In 20 years, the course has only been closed once due to a two-hour-long storm that left behind four inches of rain. While other local courses were closed for a few days, White Pine was open again in a few hours."

Less pressure

Although White Pine's lack of water hazards is uncommon, its focus on environmental friendliness is groundbreaking. White Pine utilizes a low-pressure irrigation system, thereby minimizing water and energy, a novel irrigation method.

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It's all about the kids!

Children have a special place at White Pine National because general manager/superintendent Bruce Wolfrom feels they are the future of the game.

So any child who comes to White Pine National with a playing parent or grandparent plays for free.

Yes — free.

Wolfrom has always believed it's important to give back to the game of golf, which has provided him with many hours of recreation, good friends and a livelihood. Beyond care and concern for the

environment, Wolfrom and his staff believe that if they don't invest in the future of the game, it won't continue to grow. Therefore, White Pine National developed a "Free Golf for Kids" program.

He also believes that if children spend quality time playing golf with their parents, some day they'll do the same with their children and, as adults, will remember those special family times and continue to play the game.

White Pine has hosted classes for school children, offering afternoon introductions to the game as a reward for a year's worth of good classroom behavior, according to students' respective teachers.

For nearly 20 years, high school and



community college players have also practiced and played at White Pine National. In addition, elementary and middle school children have attended summer day camps at the course, learning about the mechanics, etiquette and ethics of the game.

It's a win-win situation. Parents or grandparents can enjoy a great time with their children or grandchildren for the same fees they'd pay if they were playing alone. White Pine also wins, as parents and grandparents are grateful for the opportunity — and ensure their children or grandchildren learn to respect the course and the equipment. Children win by being introduced to a game they will be able to play for a lifetime, while enjoying quality time with their family. And, finally, the community of Hubbard Lake, Michigan wins because those children are learning the importance of respecting the course, their equipment, their fellow players, and other golfers on the course.

Everyone wins.



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"As courses became longer, irrigation designers increased the pressure that water was subjected to in order to irrigate their courses," says Wolfrom. "To move more water farther at higher pressure, you need bigger pumps. And, of course, the bigger the pump, the more electricity."

After observing other courses' irrigation methods, Wolfrom has theorized that, with larger, high-pressure irrigation systems, water is often sprayed too far. As a result, most of the water is either wind-swept or evaporated rather than actually irrigating the turf.

"We believed we could accomplish better saturation with less energy by using more sprinkler heads at lower pressure. It's the single best decision we made in the beginning that minimized our impact on the environment."

"I was always intrigued with the prospect of taming nature."

Since 1992, White Pine's electric bill has consistently been 50 percent lower than other courses of similar length and elevation. The system has also saved millions of gallons of water.

National environmental associations and organizations have taken notice. Back in 2000, White Pine received recognition as a regional winner of the GCSAA's Environmental Stewardship Award. Later that year, Audubon International named the course one of the top 100 environmentally friendly courses in the U.S.

"From the selection of the land, to its one-of-a-kind low-pressure irrigation system, White Pine's design and maintenance continues to have a minimal impact on the environment," Wolfrom says.

Golf and nature

As general manager, Wolfrom's current staff consists of only four maintenance professionals, who help him sustain White Pine's irrigation system and turf on



The 1997 USGA Senior Amateur Sectional, the 1999 Michigan Junior Amateur and the 2004 Michigan Women's Amateur have all been hosted at White Pine National. "We have a number of charitable tournaments each year and have raised tens of thousands of dollars for volunteer fire departments, hospices, Habitat for Humanity, the Hubbard Lake Community Association, and several memorial and scholarship events," Wolfrom says.

a daily basis. With a staff that is smaller than usual, Wolfrom has trained his team members to multitask, minimize errors and conserve resources.

"When you think about environmental friendliness, efficiency has a lot to do with it. By guiding my staff and initiating training programs, unnecessary errors have been eliminated and fuel costs have been reduced by 30 percent in the past year," he says.

Through their commitment to ecology and conservation, Wolfrom and his staff have developed a cost-effective course, which saves thousands of dollars each year. In doing so, golfers are able to enjoy White Pine's natural settings — and fair prices.

"Our customer base demands value for their dollar, so being environmentally conscious is best for our budget and our golfers," he says. "When folks golf here and see deer grazing along the fairways or discover a newborn fawn in the rough, they understand that White Pine National is a great place for golf and for nature." ©

Michigan-based freelance writer Chris Lewis specializes in reporting on golf in the U.S. This is his first story for *Golfdom*.

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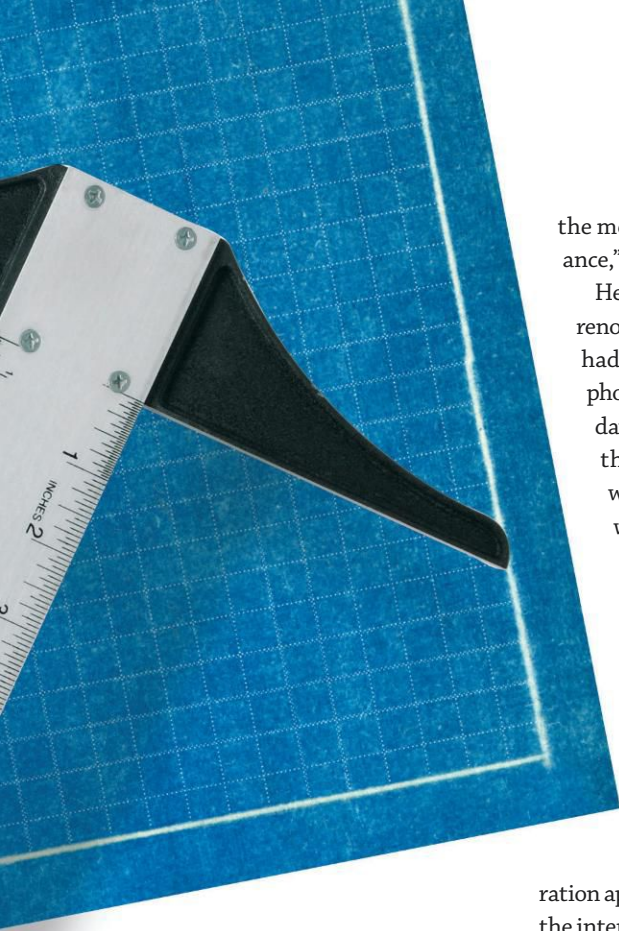
Three turf pros switched from course maintenance to course design — and found success. BY ANTHONY PIOPPi

It was as head greenkeeper of the Old Course in St. Andrews, Scotland that Old Tom Morris was called on to modify the design. His work was so admired that it led to a career in golf course architecture.

Donald Ross was born in Dornoch, Scotland, and worked for Old Tom Morris. He made his mark as a head greenkeeper, head golf professional and an accomplished player before establishing himself as an architect in the early 1900s at Boston's Oakley Country Club.

Now, though, there are few practitioners of course design who came to the architecture world from golf course maintenance. Three who did say understanding the needs and expectations of a golf course superintendent is good and bad. Yes, it helps them understand the wants of those who take care of turf, but ease of maintenance cannot be the overriding factor when laying out or renovating a course.

Bill Coore was a superintendent in Texas before moving to architecture; Brian Silva earned two agronomic degrees, taught turf at two schools and was a USGA Green Section agronomist before he became an architect; and Kris Spence was a head superintendent at a number of courses, one of which he redesigned, before he decided to switch professions.



the members need to have a good balance,” he said.

He cites as an example one layout he renovated in which the green surfaces had shrunk significantly. Old aerial photographs showed that in the early days the green top was spilling over the side of the fill pad. Members wanted the green to be as it once was, but the superintendent desired a ring of rough, then collar, around green.

Spence had to find a compromise. He explained to the membership that because of modern equipment and mowing heights, the putting surface would need a collar around it.

Then he showed the superintendent how his course restoration approach would actually eliminate the intent of the original architect.

Ultimately, Spence convinced them all that an 18-inch collar was the solution. “Because I was a superintendent, they will accept my reasoning,” he said.



“THEY NEEDED A SUPERINTENDENT, AND QUITE FRANKLY, I THINK THEY COULDN’T FIND ANYONE ELSE TO TAKE THE JOB.”

— BILL COORE

two-week increments from a soil consultant. “I went to the school of Dick Psolla,” Coore recounted.

Psolla has been a consultant for Brookside Laboratories since 1960. “I had a work ethic but no technical knowledge,” Coore said. But after six years at Waterwood, he was given the chance to design his first course, Rockport Country Club.

During the two years of construction, he remained as Waterwood superintendent, then went out on his own for a few years before teaming with Crenshaw. Their first two courses, Barton Creek Resort and Spa in Texas and Kapalua Resort in Hawaii, opened in 1991.

Common ground

Even though all three of them started in the grass-growing sector of golf, each had an affinity for design and Classic Era architecture.

Coore and Crenshaw, through their own designs, are significant in architecture’s retro movement, which saw the re-implementation of strategy. Silva embraced the same ideals and established a name for himself with his own heralded work. He renovated and restored, to much acclaim, a number of marquee layouts designed by Seth Raynor and Ross. Spence, who has made a career of returning Classic Era layouts back to their original form, thrust himself into the architecture discussion with his restoration of Greensboro Country Club’s Donald Ross 18.

Valuable experience

Coore’s experience working as a superintendent helped him grasp the dynamics of course maintenance.

Spence, for his part, strives to create a situation where three distinct groups have equal input on design decisions.

“I’ve always felt the golf course architect, the golf course superintendent and

Coore’s road to course design

Coore’s circuitous route to architecture began, in a way, in ancient Greece. In 1968 he graduated from Wake Forest University with a degree in Classical Greek. His goal was to obtain a master’s degree and become a professor. At the time, his only connection to golf was that of an avid player. But all that changed when Coore saw Pete Dye’s Oak Hollow Golf Course while it was under construction.

Coore badgered Dye for a job until he was hired as a laborer on the construction team. Afterward, Coore continued working for Pete Dye and his brother Roy. It was on Roy’s layout, Waterwood National in Texas, that Coore learned the business of turf maintenance.

“They needed a superintendent, and quite frankly, I think they couldn’t find anyone else to take the job,” he laughed.

Coore was encouraged to take the job by people who worked for the Dye company. So he took it. And he learned the trade in

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A chance encounter

Silva's path was more traditional.

When growing up in Massachusetts, Silva's father, a heavy equipment operator, took on some golf course shaping work for a local contractor. For the next 15 years the majority of his business involved working with architects such as Geoffrey Cornish, George Fazio and Phil Wogan.

"I wanted to run equipment and build golf courses. I went to work with my father, and he gave me a wheelbarrow with a rake in it," Silva said. "That cured my desire to build golf courses."

While on one of his father's jobs a few years later, Silva met Cornish and asked him for advice on becoming an architect. Cornish told him to get turf and landscape architecture degrees and work summers on golf course maintenance crews.

"In all honesty, I wasn't 100 percent sure if I wanted to be a golf course superintendent or go into design," Silva said.

He earned a two-year degree in turf from the Stockbridge School of Agriculture and then a bachelor's degree in environmental design from the University of Massachusetts-Amherst. For two years afterward, he pursued a master's degree in plant and soil science while teaching undergraduate courses.

From there it was a three-year stint teaching at Florida's Lake City Community College, then it was back to New England, where Silva became the first USGA Green Section agronomist assigned to the region.

It was during a site visit that he bumped into Cornish. "I think it's time you get into design," Cornish told him.

Silva did, joining Cornish and his partner, Bill Robinson, who was in the process of relocating to the West Coast. In 2000, Silva formed his own company.

Silva made a name for himself with such original designs as Black Creek Club in Tennessee (an homage to Seth Raynor) and countless restorations, including Interlachen Country Club in Minnesota.

Brian Silva is proud of the fact that two of his renovations will host USGA championships this year.



Spence's early inspiration

It was in the mid-1970s at Kennett Country Club in Missouri that Spence learned about architecture and agronomy; the owner also happened to be the superintendent and tinkering designer. By the time he reached high school, Spence was sketching green complexes.

"He's passed on but he never knew how much he inspired me. It really got me interested, just talking to him about what he was doing," Spence said of the owner. "Along the way, at about 15, I realized I wanted to stay close to the game."

Spence earned a degree at Gateway College and took a job at Atlanta Athletic Club, where much renovation work was done in-house. His first head job was at Forest Oaks Country Club, where he undertook in-house renovations. In the late 1980s, he joined Jack Nicklaus's team for the construction of the Governor's Club, where Jim Lipe was the lead designer.

Spence's final stop on the agronomic side came in 1990, when he took over the head job at the 36-hole Greensboro Country Club.

Using original survey maps and old aerial photographs, Spence proposed a master plan to restore the golf course, and the membership let him implement it. He followed with the heralded redesign of the Ross-designed Grove Park Inn layout.

By the end of 1999, Spence decided to make the move to design.

"It's really the key to my success in so many ways," Spence said of his time as a superintendent.

On condition

But as Silva pointed out, wonderful turf does not mean a wonderful golf course.

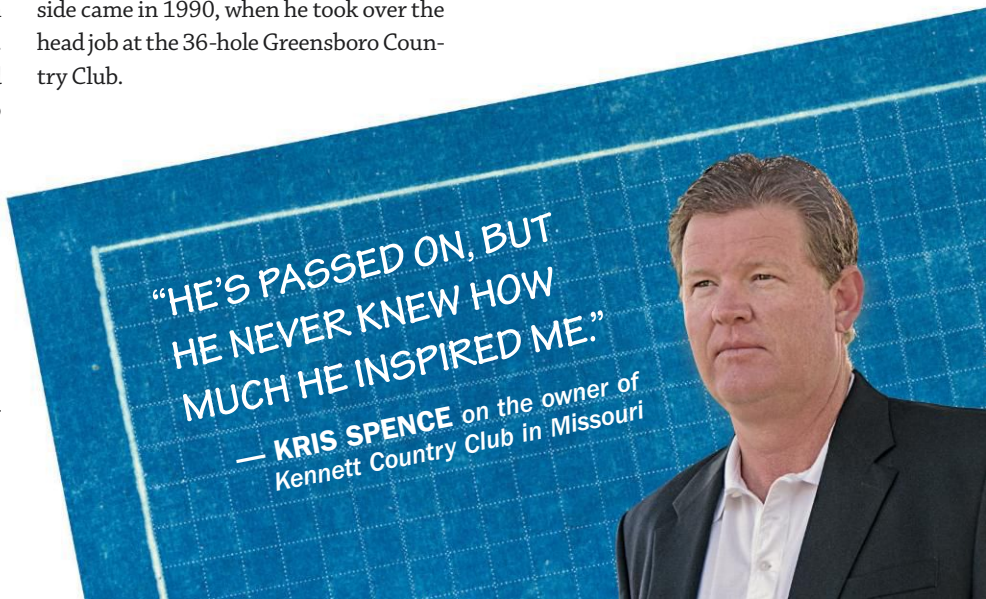
"You can have a very strategic, sound, interesting golf course with lousy turf," he said. Then again, on the other hand, you can have fantastic turf and poor design. "It's a golf course that has no strategic interest," Silva said.

Coore noted that the right conditions for a golf course are not always green and lush. "Proper turf conditions," he added "are not always what we see on television."

Silva, Coore and Spence agree that a golf course that is simple to maintain will inevitably be boring.

"I try to make it so the superintendent can get to the fairways, the tee tops and green tops relatively easy," Silva said. "It's a golf course. There has to be a few areas that are hard to get at. It's the nature of the beast." **G**

Pioppi is a freelance writer and the author of "To the Nines."



PHOTOGRAPHY COURTESY: BRIAN SILVA (TOP) / KRIS SPENCE

NEW YEAR, NEW YOU

In 2013, superintendents are making resolutions — and sticking to 'em.

BY BETH GERACI

Making New Year's resolutions is easy. Keeping them? Not so much. As with every other year, in 2013 only the strong will survive. Here are a few superintendents who show a lot of potential, whether they're foregoing bacon or lightening their workload.



Brian Boyer

POSITION: Superintendent / Cinnabar Hills Golf Club, San Jose, Calif.

RESOLUTION: Nix bacon strips and donuts

CHANCE OF SUCCEEDING: Hole in one



Brian Boyer won't be hitting Krispy Kreme anytime soon. At least, that's the plan. He's swearing off donuts in 2013 and even contemplating giving up alcohol Monday through Thursday. He's also giving up bacon strips, although Bacon Bits are still fair game. (We're not sure why.)

"They're things I like, and it's just a test," he says. "I'm not Catholic, so this is like my Lent."

Boyer's "Lent" lasts a lot longer than the typical month, apparently. Last year, he gave up counter snacks; he hasn't had a lollipop at the dry cleaners since. He hasn't eaten fast food since he gave it up for New Year's four years ago, and after he quit smoking for 2010 he never took another drag.

Boyer strives to give up things he really likes, things that will help him become stronger for it. "I tend to think I'm weak minded, low in mental fortitude, you could say. So I test myself," he says.

Given his stellar track record, Boyer plans to make New Year's resolutions for the rest of his life. His advice for those who struggle to keep them: Set reasonable goals.

If the guys on the maintenance crew want to do Boyer a favor, they won't bring donuts to work. "If I have a donut in front of my face, I'm sure it'll be a little difficult," Boyer says.

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ISTOCKPHOTO

// GOING FOR IT

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Gary Myers, CGCS



POSITION: Superintendent / The Sagamore Club, Noblesville, Ind.

RESOLUTION: Eat healthier

CHANCE OF SUCCEEDING: Close to the pin



When you're on the brink of turning 40, you get to thinking about making some serious changes in your life. And Gary Myers, who turns 40 in March, is peering over the edge. While he still has time to plan his celebration, the time is now for sticking to his New Year's resolution.

"I just resolved to eat better and drink more water," says Myers.

That means no more fast food and enforcing a self-imposed soda ban. "I love soft drinks. That's probably my nemesis," says Myers. "I tried to eliminate as many as I could and just drink water."

Myers still allows himself one soda in the morning. Everything in moderation, he says. He's also working out a half hour a day and training with his wife for a half marathon in May.

"If you're going to do it, now's the time to do it," he says. "It's much easier if you have a goal. Otherwise, it's much too easy to say, 'Um, not today.'"

Jeff Holliday, CGCS

POSITION: Superintendent / Salisbury Country Club, Midlothian, Va.

RESOLUTION: Get healthy, manage time better, be a better delegator

CHANCE OF SUCCEEDING: Hole in one



When Jeff Holliday makes a resolution, one just isn't enough. Every year, he makes two of them — one personal, one professional.

This year, Holliday's on a quest to del-

egate more to his assistants and get them more involved. "I tend to take on too much myself, because you know, no one can do it better than me," he jokes.

In his personal life, Holliday has been known to dabble in vices. But one by one, they're dropping off. Last year, he gave up chew. He hasn't spit in a cup since — and he won't. "I want to be around for my kids so I can watch them grow up," he says.

In 2013, he's on a quest to get even healthier. That means dropping 20 pounds and giving up wheat beer, his favorite. "You've always got to challenge yourself," he says. "If you don't, it's always status quo. Life's too short to just sit and let it go by."

Holliday has lost seven pounds since he gave up beer. For the record, he hasn't swilled one since the *Golfdom* Summit in November. Not that we're a bad influence or anything. **G**



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// IN THE FIELD

NMSU STUDY ON N

By Clark Throssell, Ph.D.

A multi-year New Mexico State University study determined how N fertilization impacts the amount of water certain grasses need to have acceptable quality — specifically Kentucky bluegrass, tall fescue, buffalograss and bermudagrass. Higher N required less water to maintain the same level of quality, but N source had only moderate influence. Contact Ryan Goss, Ph.D., assistant professor of turfgrass science at ryangoss@nmsu.edu for more information.



Right side of the image is the irrigation source (linear gradient irrigation system). Amount of applied water goes from none on left to 150 percent ET on right. You can see the four turfgrass species as you progress away from the camera.

NEWS UPDATES



GEORGIA TURF EXPERT HEADS TO OREGON STATE

Alec Kowalewski, formerly an assistant professor of turf management at Abraham Baldwin Agricultural College in Georgia, began work at Oregon State University as the school's new turf specialist on Dec. 31st. He replaces Rob Golembiewski, who took a job at Bayer Environmental Science in March 2012.

He'll divide his time between teaching, researching and working as a specialist with OSU's Extension Service to help the industry. He'll carry out his research on the plots and putting greens at OSU's Lewis-Brown Farm and the Trysting Tree Golf Club near campus. He'll be aided by OSU's Brian McDonald, a research assistant who maintained the turf program after Golembiewski's departure.

“I THOUGHT THIS WAS A RARE, UNIQUE PROBLEM WHEN I FIRST WITNESSED IT IN HAWAII. BUT NOW I’VE SEEN THIS IRON LAYER IN TEXAS, MISSOURI, VIRGINIA, PENNSYLVANIA, WEST VIRGINIA, CALIFORNIA...”

Glen R. Obear on iron layering in two-tiered putting greens (see full story on page 55)

Golfdom suggests...

- **10 a.m., Feb. 4th** — Steps to improving your irrigation water quality, Golf Industry Show, San Diego
- **8 a.m., Feb. 5th** — Expanding the boundaries of ultradwarf bermudagrasses

in the upper South and the transition zone, Golf Industry Show, San Diego

- **1 p.m., Feb. 5th** — Management of fine fescues for "native" rough areas of golf courses, Golf Industry Show, San Diego



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