

The future course

GOLF COURSE DESIGN CHANGES REFLECT MARKET DEMANDS AND MAINTENANCE COSTS

by
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Golf course design changes during the next five to 10 years might not be drastic, but there will be changes that will affect superintendents' approaches to maintenance and their budgets. Shorter courses, fewer bunkers and narrower fairways might be some of the changes that occur, in addition to updated greens and tees. But no matter what the changes, golf course conditions will continue to improve.

Brad Kocher, senior vice president of golf course management for ClubCorp and v.p. of grounds and golf course management at Pinehurst Resort in N.C., says the industry

will continue to push to have the fewest amount of acres and still have nice courses.

"Fewer acres of golf course mean less maintenance, chemicals and water," Kocher says. "A golf course that uses 200 acres – you won't see that that often."

Bill Love, president of the American Society of Golf Course Architects, agrees with Kocher and says the industry will focus on resource conservation when developing courses.

"It's important now, but were refining it," Love says. "There's more design with resource conservation in mind. But the biggest thing to deal with is to reduce the area and adjust to

new technology with equipment. When designing golf courses, we need to make it easier and cheaper to maintain them."

Locations

Recently, there's been a trend of developers building courses in residential communities, and that's expected to continue.

"Most of those courses are financially productive," Kocher says. "The best return on investment is when 18 holes are tied to residential real estate."

Love says architects should look at how they approach residential golf courses.

Golfers would like to see fairways become wider to accommodate their drives. However, wider fairways are more expensive to maintain, and some superintendents are under pressure to narrow them.

Usually, there are between four and six tees boxes on a golf course. This is a result of golfers hitting balls farther and to accommodate golfers with different skill levels. It also gives a course diversity and excitement.



"We need to keep costs involved with building and maintaining golf courses down," he says. "We need to make a viable amenity in a community."

Kurt Huseman, executive v.p. of the project development group for Landscapes Unlimited, a golf course building company based in Lincoln, Neb., says developers look at golf courses as a way to sell more expensive real estate, but he also sees another trend.

"We're seeing more of a hospitality component in golf course development," he says. "Golf course clubhouses will be part of a hotel, and developers will be putting hotels on golf courses so the business traveler has a recreational outlet. It's a way to capture rounds and roomnights."

Courses will be built in other locations as well. Upper-end golf courses, which are a small portion of development, will be developed in remote areas, such as Whistling Straits in Kohler, Wis. Additionally, environmental rules will force golf courses to be located in areas

that are considered derelict sites, according to Jeff Brauer, a licensed golf course architect and president of Golfscapes, a golf course design firm in Arlington, Texas.

Love agrees with Brauer and says more golf courses will be developed on degraded sites, which can be more than a quarry or landfill, for adaptive reuse.

"To retrofit a landfill to a golf course isn't the easiest thing to do," Love says. "The cost can be higher than you may want if you have to remove trash and contamination. Golf course construction can be folded into remediation, but the grade might be ready for a golf course, which can save money."

Sheer rock cliffs are an example of not tampering with grade. Love suggests developers incorporate them into a course landscape instead of eliminating them.

Length

The length of golf courses is a popular topic lately. Many wonder, with golfers hitting balls

farther, how much longer courses will be. But with length comes expenses such as land, development and maintenance costs.

Doug Winfield, a mechanical engineer who designs golf equipment, says there has been a big increase of length on championship golf courses, which are about 7,600 yards long on average. However, he says there will be an emphasis on strategy because not every hole can be 480 yards.

"It's hard to make a 7,600-yard course for a normal golfer to enjoy," Winfield says. "The hazards don't make sense for some golfers on courses that are that long. But tournament-level torture tracks are popular. You don't see many shorter courses. There are too many golfers that want to play at their own pace."

"Because more land is needed to build a championship golf course, there's a greater need for residential development to finance the development of the golf course," he adds.

Brauer says people eventually will realize that long lengths are needed for only 1 per-

The number of bunkers on a course is related to the cost of golf. Some in the industry think there will be a trend of courses using fewer bunkers for economic reasons.

Greens are becoming faster because of golfers' demands. In the future, there will be an increased emphasis on pin placements, green size and contours to challenge golfers.





Photo: Landscapes Unlimited

The number of bunkers on a course is tied to the cost of golf. The industry could experience a trend of fewer bunkers on golf courses.

cent of golfers, who are professionals. He says they seem to like to play 7,300-yard courses.

"We will come to our senses and won't use the back tees [on those long courses]," he says. "Overreaction will settle, and the back tees will stabilize to 7,250 yards."

Kocher says shorter courses will be mixed in with longer ones.

"If I was building a 36- or 54-hole complex, one course wouldn't be as long as most courses seem today," he says. "You can't be under 7,000 yards if you're developing a course, yet amateurs are enjoying those types of long courses less. I'm not sure if a short course will be developed all by itself. So much is predicated on playing 18 holes."

"If you're going to build a course that will host a professional tournament, you have to think differently about length," Kocher adds. "Pro tournament golf is in a class all by itself, but you can't build courses just for that."

Stan Zontek, an agronomist and director of the Mid-Atlantic region for the USGA Green Section, says a result of longer drives is the blurring distinction between par-4 and par-5 holes.

"Years ago, a par-72 would be 7,000 yards," Zontek says. "Now you see par-71 courses that are 7,400 yards. Par-5s are turning into par 4s for some pro golfers."

Love says the industry needs to focus on presenting a challenge to golfers without adding extraordinary length to courses.

"Cost is significant, and the answer is not to make courses longer and wider just because people are hitting the ball farther," he says. "We need to come back down a bit from the 7,500- to 7,600-yard range, but it depends on the ruling bodies of golf. Some controls will have to be put in place. We're going to have to put the brakes on where we're going. There's going to be a lot more focus on doglegs and hills to create challenges."

Huseman says the 7,300-yard average length course will remain constant.

Greens

Greens are probably just as hot a topic as course length, if not more, and this area will experience change as well. Winfield says greens are much faster than they used to be and superintendents keep reducing mowing heights to meet golfers' demands.

"What happens on the PGA Tour trickles down to the recreational courses," he says. "The ability to maintain courses has made quantum leaps, and there have been many agronomy enhancements."

Brauer says greens must have a slope of 1.5 percent for drainage and that while many greens are flattening, the average golfer likes contour.

"I haven't flattened my greens as much as some others have," he says. "They don't have to be as flat as 0 percent to 1 percent. Contours can be used to feed the ball to the pin. Greens no longer slope from back to front to help a shot. Slopes from right to left and pin positions can combat extra large greens."

"We're going to find that architects will be making greens harder with reverse slopes," Huseman adds. "I like the idea of going back to smaller greens, but I don't know if I see that trend."

Greens have grown throughout recent years, according to Zontek.

"Greens used to be 5,000 square feet, and now 8,000 square feet is becoming more common," he says. "But in the 1960s, we built monster greens—9,000 to 10,000 square feet."

Brauer says that because the cost of maintaining greens is so expensive the industry needs to go back to more functional sizes.

"I'd like to get greens below 5,000 square feet with fewer contours and larger greens with more for the sake of variety," he says. "I'm not afraid to be eclectic: a few small, a few large and everything in between."

Pin placement is also important as it relates to green size.

"We want to be able to create different pin placements so you can spread the traffic out and prevent the golfer from getting bored," Love says. "There's an infinite amount of variety for pin placement so the golfer can have a different experience every time he golfs."

Kocher says greens can get smaller and one reason is because new ultradwarf Bermudagrass and high-density bentgrasses (the As, Gs and L93s) have the ability to accept more wear.

"I'm influenced by [golf course architect] Donald Ross, but I see designers incorporating shortcut roll-off areas around the green," he says. "More people like that penalty more than missing a green by five feet and being four inches in rough."

Zontek says ultradwarf Bermudagrass and the Penn A, G and L93 bentgrasses allow faster green speed, but he doesn't know where it will end.

"[Golf course architect] Tom Marzolf is developing guidelines for greens," he says. "He says his clients want 10.5 on the Stimpmeter. People think faster greens equal good greens. It's a catch-22. I don't know how we're going to change golfers' perceptions."

"It's amazing what they do with grasses," Huseman adds. "They are using TifEagle Bermudagrass on greens in Texas to make them faster."

Green location also is important to realize is the design process.

"There's a realization that you need enough sunlight on new greens and you can't tuck them back in a shady nook," Zontek says. "Greens have been put in bad locations."

Fairways

The distance golfers are hitting balls also affect fairway widths. Winfield says holes near houses need to be wider, and Brauer says golfers would like to see wider fairways with fewer trees, but recently, superintendents are under pressure to narrow them.

"Narrower fairways can reduce maintenance," Brauer says. "It costs a lot more to maintain fairways than rough even though there is better and better maintenance on smaller areas of the fairways. Reducing the size of the fairway and increasing the size of the rough saves water. I hope to keep fairways wider but smaller is the trend because of the money to maintain them."

Love says fairways have to be wider, especially with golfers using new equipment to hit the ball farther sideways.

"We need to widen the landing areas, but I want to accommodate new technologies and reduce maintenance requirements," he says. "It's a tough thing to do. You have to be careful when designing a course to make sure the narrow and wide areas of the fairways are in the right places but aren't cookie cutter. All of this is based on topographic conditions. Design is not one-dimensional and can change the slope your hitting into."

Fairway widths depend on the type of



Kocher



Love

Changes in technology, ratings and mower stress

Design changes aren't the only evolutions superintendents will see on the course in the future. Wireless technology, course ratings and mower stress also will change, affecting the way courses are maintained.

People are looking to apply wireless technology on golf courses, according to Kurt Huseman, executive v.p. of the project development group for Landscapes Unlimited, a golf course building company based in Lincoln, Neb.

"Expect to see more people aligning technology with the game, such as Wi-Fi and technology that would be used to locate golf carts, keep track of maintenance and employees, and communicate with the pro shop," Huseman says.

Doug Winfield, a mechanical engineer who designs golf equipment, says a lot of courses aren't rated properly, and one day, course ratings should account for weather, such as high winds after a lot of rain.

"Better methods of course ratings are needed," Winfield says. "There are ways to fool the USGA course rating by putting out of bounds markers on a course in order for it to rate more difficult."

Stan Zontek, an agronomist and director of the Mid-Atlantic region for the USGA Green Section, says the conditions of golf course will get nothing but better, but there needs to be more of a focus on managing mower stress.

course, Huseman says.

"If land is cheap, you'll have wide fairways," he says. "If land is expensive, you'll have narrower fairways. And for safety reasons, fairways will have to be a certain width. We're also seeing a trend of more native areas in out of play areas."

Zontek says fairways are becoming narrower and the mowing heights on fairways are getting shorter.

"It was one inch in the 1970s, and now the better courses are down to 0.325 to 0.4 of an inch," he says. "We're topdressing fairways. I've heard of some courses that are hand mowing fairways. It was a joke at one time, but now people are doing it."

Bunkers

Bunkers probably won't experience the kind of changes greens and fairways will, but there will still be a trend, according to Brauer.

"Bunkers still provide a more difficult challenge and still have their place," he says. "We're going through the same cycle that we did in the 1960s and 1970s to take out bunkers that don't see a lot of play for economic reasons. We need to justify bunkers. The trend will be fewer bunkers."

"You need some, but you don't need that many," Kocher adds. "Grassy hollows could replace some bunkers. Sometimes we have too much sand, and to a professional, sand is not a penalty."

Unfortunately, people don't think bunkers are hazards, according to Zontek. Bunkers aren't supposed to be consistent. Finer sands are used in fairway bunkers and softer sand are used in the bunkers near the greens.

Love says if a course doesn't have many natural features to define it, more bunkers could be added. He says architects can design bunkers that are drastic but they need to be aware of maintenance requirements for them.

Bunkers are tied to the cost of golf, Huseman says.

"We're seeing a lot of municipal clients who want affordable golf – \$4 to \$5 million for a facility – so the number of bunkers is fewer," he says. "The price point determines the number of bunkers."

Tees

Tees are changing, too. Brauer says that because there are so many tees on a course, architects are staggering them left to right so golfers doesn't see the others when teeing off.

"Tees are using more and more land," he says. "Increases in land become difficult for walkers to get to the back tee and that reinforces the use of carts."

Love says he's a fan of a lot of diversity, as far as width and length, in teeing areas.

"It gives the golf course more excitement," he says. "Having four to six tees gives you flexibility. Most of the up-front tees are in one spot and flexibility is in the middle tees. Senior, women, professional and amateur tees provide a reasonable challenge for all levels of players."

One of the results of farther hit balls are multiple tees.

"I saw one course with seven tees – that's a bit much," Zontek says.

Also, tee boxes are becoming more of a feature, and they tend to be more isolated, Huseman says.

"[Golf course architect Tom] Fazio has been developing that technique," he says.

The industry will see a return to squared off tee boxes because it's a function of how they're built and maintained, according to Kocher.

Other trends

There will be some other growing trends, but artificial turf isn't going to be one of them.

"Artificial turf won't take over," Brauer says. "Natural turf provides environmental benefits. There will be more drought-tolerant grass, too. We're not taking a step back to scruffier golf courses. I don't see switching back to lower quality playing conditions."

Kocher says artificial turf is costly. "People will be willing to look at it, but I would be surprised if it's a trend," he says. "Artificial turf doesn't have an infinite life. People like real growing grass."

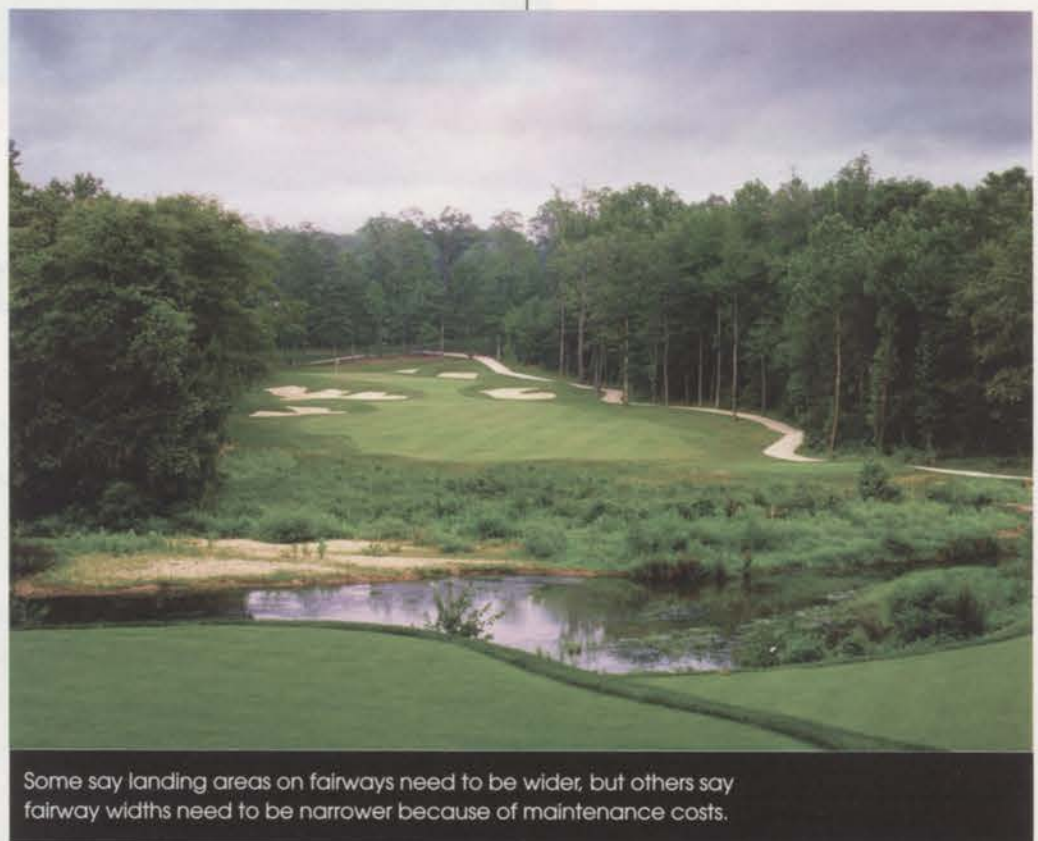
However, there is a golf course in development in Mancos, Colo., called Echo Basin Resort that will use artificial turf. Dan Bjorkman is the owner and developer.

Huseman also says there's growing trend to develop more drought-tolerant fairway grasses. Paspalum is a popular type of grass on fairways and greens in the Caribbean. It's also cheaper than Bermudagrass because it's seeded, not sprigged.

Overall, Huseman says golf course development won't decline any further, but it won't pick up quickly.

"A lot of renovations are keeping us busy," he says. "A lot of the renovation entails wiping the slate clean and starting over. New course development will hold steady as long as residential development can support it. If residential development declines, we would be directly impacted." GCN

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Some say landing areas on fairways need to be wider, but others say fairway widths need to be narrower because of maintenance costs.