

Issue 17 | Winter 2013

BY DESIGN



Excellence in Golf Design from the American Society of Golf Course Architects

Facing the challenge

We profile twelve golf clubs that have solved technical and operational problems by working with ASGCA members

Also: Pace of play • Participation in China • Health benefits of golf • New courses in South Korea

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Design excellence

While reviewing this issue of *By Design*, which is devoted to the 2013 iteration of the ASGCA's annual Design Excellence Recognition Program, I was struck with admiration for the outstanding creative and technical work that is being done by my fellow professional architects.

One of the unique and wonderful things about the ASGCA is that while individual members may be competing for projects, at the same time we frequently share ideas, experiences and know-how. Maybe it's a reflection of golf, the sport where elite professionals who are competing with each other for millions of dollars, or their livelihoods, are also quite happy to give each other putting tips.

This fraternal spirit really helps us to excel in our work. While we have highlighted just 12 examples in this year's Design Excellence Recognition Program, there are hundreds of projects, from advisory work on small changes to entire new-builds, where ASGCA-member architects have employed their technical and design excellence to the benefit of their golf club clients.

Whatever your challenge—improving water management, saving operational costs, increasing revenue, improving sustainability or providing your customers with a more fun experience—by engaging with an ASGCA member architect you can be confident that you will achieve your goals.



I hope you enjoy the read.

Yours sincerely,

Rick Robbins
President
American Society of Golf Course Architects

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Is there any place for slow play on our golf courses?

BY DESIGN

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COVER



The Ambiente course at Camelback GC was designed by Jason Straka, ASGCA and photographed by Dave Sansom (www.davesansom.com).

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Pace of play

Industry leaders tackle pace of play

Golf industry leaders gathered at the USGA's headquarters in Far Hills, N.J., to share research findings and make recommendations to help solve one of the game's long-standing challenges—pace of play.

In his opening speech at the Pace of Play Symposium, USGA executive director Mike Davis explained that the industry must work together to tackle causes of slow play. "We don't see this simply as a USGA initiative," he said. "Pace of play is an issue that we need to address collectively in order to develop a roadmap."

Lou Riccio, a professor at Columbia University and a pace-of-play analyst, added that pace-of-play discussions typically focus on the behavior of golfers, yet the role of facility owners, course managers and others is of equal if not greater importance. "This is an integrated challenge, and one with many stakeholders," he said.

Key takeaways from the day included the sharing of practical measures to avoid slow play, such as setting tee time intervals that are appropriate for individual golf courses and avoiding putting too many players on the course at any one time. Matt Pringle, the USGA's technical director, also stressed the importance of properly measuring the factors that most influence pace of



"Base our decisions on fact and information," said the USGA's Matt Pringle

play. "We need to approach this problem and base our decisions on fact and information," he said.

ASGCA was represented by members Jeff Blume, Tripp Davis and Forrest Richardson, and Director of Programs Aileen Smith. Blume and Davis currently serve on the ASGCA Board of Governors, and Richardson (a former Governor) regularly presents on the topic at golf conferences.

Much of the event was devoted to the presentation of data compiled by studies of golfer movement around the course, and how many aspects of the management of the game affect pace. As Tripp Davis, ASGCA, commented in a follow-up: "A lot of what we heard from the scientists really ends up being common sense: the lead group determines the pace of play. If too many players are pushed onto the course in too short a time frame, log jams occur;

the longer it takes to get from green to tee, the longer it will take to play the course, for example.

"Where I find the science has more application is in the flow of play," he continued. "A good flow does not necessarily impact the total pace, but it does impact the experience a player has."

Pace of Play Pledge

To help tackle pace of play, the USGA is encouraging golfers to sign its Pace of Play Pledge. Already, more than 185,000 people have signed the agreement, which includes promises to:

- Identify ways that I can pick up the pace
- Practice 'ready golf' during stroke play
- Serve as an example for those around me
- Embrace opportunities to play nine holes
- Play more quickly, play better and have more fun!

Find out more at:
usga.org/whilewereyoung

New courses for South Korea



Phillips' South Cape course

Two new world-class courses, designed by ASGCA architects, have opened in South Korea.

The South Cape Owners Club course, designed by Kyle Phillips, ASGCA is located on the coastline of Namhae Island and is the centerpiece of a luxury golf resort community. "We incorporated a links feel into what is not a true links landscape. Every hole has a view of the sea. It is one of the most striking coastlines in golf," said Phillips.

Jim Engh, ASGCA has also completed work on the Jangsu Golf Resort course, located in the North Jeolla Province. This is the first time that Engh has designed in the country, but, like many of his other projects, Jangsu occupies rugged mountain terrain.

"We chose to use the natural valleys and ridges to play up, down and across this exciting land," said Engh. "I believe that it is unlike any other course in South Korea."



Engh's Jangsu Golf Resort course

Photo: Mark Thawley


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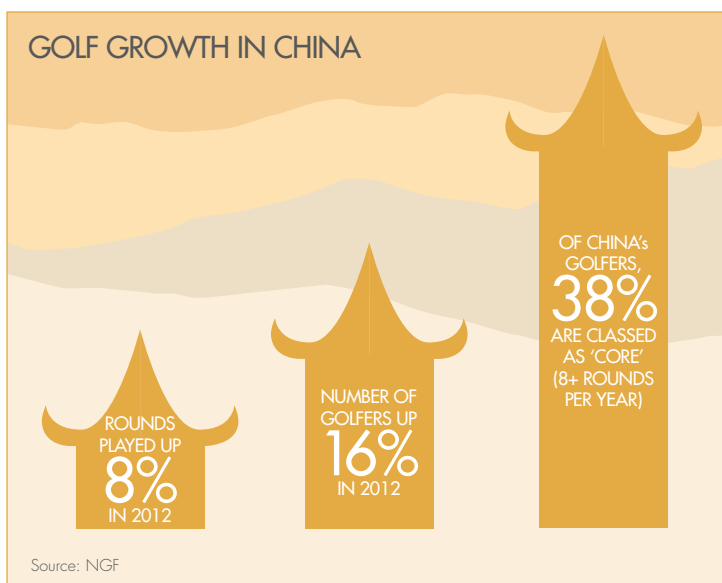
Participation in China

Chinese market up by 16 percent

The number of golfers in China has grown by 16 percent between 2011 and 2012, according to a new report published by the National Golf Foundation.

The *China Golf Industry Report 2012* highlights robust growth in the Chinese golf market, stating that the number of rounds played in 2012 increased by 8 percent to 11.5 million. Around 38 percent of China's total number of golfers are now classified as core golfers (those playing at least eight rounds per year).

The report also confirms that more opportunities for growth exist in the market, highlighting that the Circum-Bohai-Sea Region has great potential for golf tourism development. Visit www.ngf.org to order the full report.



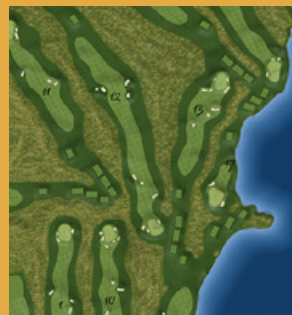
New project for Carrick Design

Canadian architecture firm Carrick Design has been commissioned to design a new course in China.

Located on the Dalian Peninsula and overlooking the Yellow Sea, the site features some spectacular coastline, according to ASGCA Past President Doug Carrick.

"The golf course layout is designed as a traditional links," said Carrick. "Golf holes constantly change in their direction of play to present the golfer with a variety of wind conditions on the exposed site."

The project will also include a small residential component.



Toro turns 100 in 2014

As Toro gears up to celebrate its 100th anniversary next year, the company has said that it will stand by the principles that have guided it from the very beginning—a commitment to innovation and building lasting relationships. Since it built the mechanized mowing machine in 1919 to replace horse-drawn equipment typically used by golf courses at the time, the company has remained at the forefront of technological innovation. Michael J. Hoffman, Toro's chairman and CEO, said that the company will build on its strong foundation as it heads into its next century.



R&A rule reaches amateurs

From January 2014, the R&A condition that requires all clubs, except drivers and putters, used in professional championship events to conform to the 2010 groove and punch mark specifications will also apply to R&A amateur events. The full details of this condition can be found in Decision 4-1/1 of *Decisions on the Rules of Golf*.

Profile completes processing upgrades

Profile Products has completed a year-long upgrade to processing equipment at its manufacturing facility in Blue Mountain, Miss. This will allow the company to expand its production capacity and ensure flexibility in its product mix.

Health benefits

Golf is great for the body and mind

PHIT America, a campaign dedicated to increasing physical activity and fitness in the US, has said that golf doesn't get enough credit for how great a fitness activity it is.

"When we dug into the research, it was amazing how good golf is for fitness. Not only for the body, but for your overall health," said PHIT America founder Jim Baugh.

According to Steve Mona, CEO of the World Golf Foundation, "the average golfer will walk five miles, or walk one mile if they ride in a cart," during a game of golf. "Also, during an 18-hole round, a cart-rider will

burn 1,300 calories, while a walker will burn as many as 2,000 calories," he added.

"That is the equivalent of jogging on a treadmill for two hours and 10 minutes."

PHIT America also reported the positive effect golf has on a person's mental fitness, including helping to sharpen focus, and develop cognitive skills and strategic thinking. "The next time you are calculating changes in elevation, wind speed and direction, altitude, moisture on the ground and in the air, distance to the target, and swing plane, remember one more swing thought: your brain is getting a great workout!" said PHIT.

Facing the challenge

The ASGCA's Design Excellence Recognition Program highlights some of the best recent examples of golf course architecture. *By Design* profiles this year's honorees



Photo: Trey Kemp



Photo: © 2013, Dave Sansom



Photo:

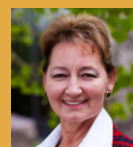
One of the great joys of golf is that no two courses are exactly the same. Unlike most sports, there are very few limitations imposed on the size and dimensions of the playing surface. The oldest golf courses weave among coastal dunes, but they can equally traverse open parkland, meander through heath or take players deep into forests and mountains.

And it's not just the terrain that's different. Some clubs are established for a private membership, some are municipality-owned and provide a service to the general public, and resort courses are developed to attract and retain visiting guests. They can be located in big cities, rural areas or far-flung destinations.

As a result, each club faces its own very unique set of challenges. For some, it might be standing out from the crowd in a well-served market, or appealing to a population of novice golfers. Others might have to work out how best to cope with the ingress of nearby development, or make a more positive impact on the environment.

These, and more, are challenges that have been faced by the honorees of this year's Design Excellence Recognition Program from the American Society of Golf Course Architects. All 12 clubs profiled on the following pages have enlisted the experience and expertise of ASGCA-member architects to help them find innovative and practical solutions to their unique challenges.

THE ARCHITECTS



Jan Bel Jan
oversaw a renovation of the 27-hole municipal Lake Venice club in Florida.
» [Go to page 17](#)



Todd Clark
created a dual purpose practice facility at Twin Oaks CC in Springfield, Mo.
» [Go to page 21](#)



John Colligan
created a new design that led to a doubling of rounds played at Stevens Park GC.
» [Go to page 20](#)



Lester George
helped the city of Wilmington retain Rock Manor GC amid infrastructure developments.
» [Go to page 19](#)



Raymond Hearn
provided Island Hills GC with a renovated course that transformed club revenues.
» [Go to page 16](#)



Michael Hurdzan
created a low-cost, unique, fun golf experience for a resort in Rockbridge, Ohio.
» [Go to page 15](#)



Robert McNeil
introduced a new water management program while renovating Mohegan Sun CC.
» [Go to page 18](#)



David Rainville
created a short course for a charity that teaches children life skills and golf.
» [Go to page 14](#)



Rick Robbins
designed a completely new 27-hole course in a national park near Dandong in China.
» [Go to page 12](#)



Steve Smyers
helped Butterfield CC improve aesthetics and strategy while solving technical challenges.
» [Go to page 10](#)



Jason Straka
completed renovation projects at both Camelback GC and Columbia CC.
» [Go to pages 11 and 13](#)

Larry Lambrecht

Photo: © 2013, Dave Sansom

BUTTERFIELD CC



The repositioned creeks now have a much greater impact on playing strategy

Location:
Oak Brook, Illinois

Architect:
Steve Smyers, ASGCA
Steve Smyers Golf Course Architects
www.stevesmyers.com

Project summary:
Butterfield Country Club worked with Steve Smyers, ASGCA to find a solution for technical challenges related to problematic drainage on its course, which also generated considerable strategic and design improvements.

Partners:
Leibold Irrigation, Inc.
Toro

www.butterfieldcc.org

“In addressing technical issues, we’ve also sought to encourage the ‘ground game’ by adding a lot of subtle fairway and putting surface contouring”

The Salt Creek stream in northeastern Illinois runs through the heart of Butterfield Country Club. It is prone to flooding and, historically, bank erosion has had an adverse impact on the course, with playing surfaces affected and poor drainage in places.

In appointing Steve Smyers Golf Course Architects to address these issues, the club also needed to adopt a water management plan developed by DuPage County that involved lowering elevations to store water and help prevent flooding in downstream neighbourhoods.

By significantly redirecting the course of the creek, Smyers was able to conceive a new design that could meet the county’s water storage requirements, prevent future erosion and restore riparian environments. As well as solving technical problems, the repositioned watercourse facilitated the creation of numerous aesthetic and

architectural improvements.

The creek bed was dropped by as much as 15 feet, generating large amounts of fill that was used to sculpt holes that mimic the glacial moraine deposits cut out by rivers. Holes were designed with a variety of characteristics that complement the native ecological pattern, encourage diverse shot-making and reward strategic thinking.

“Several holes now play from low in the floodplain up to dramatic green settings benched into the higher oak-lined ridges. Others play from high on the ridges with sweeping views down to fairways and greens set alongside creeks and ponds,” says Smyers. “The vagaries of the wind is a constant theme here and we’ve sought to encourage the ‘ground game’ by adding a lot of subtle fairway and putting surface contouring. Above all, we’ve endeavoured to create a layout that golfers will find to be stimulating, rewarding and an enjoyable experience”.



CAMELBACK GC

Location:
Scottsdale, Arizona

Architect:
Jason Straka, ASGCA
Fry/Straka Global Golf Course Design
www.frystraka.com

Project summary:
As a renowned AAA 5-Diamond Marriott hotel, Camelback Inn felt that its Indian Bend course did not reflect the quality of the rest of its resort. Working with Jason Straka, ASGCA, the course was completely redesigned to improve playability, strategy, safety, aesthetics and the environment.

Partners:
Integrity Golf
Toro
Profile Products
Jacklin Seed
Advanced Drainage Systems
OB Sports Management
Marriott Golf

www.camelbackinn.com

Photos: © 2013, Dove Sansom



Previously flat, the new Ambiente course features dramatic contouring for improved drainage, architectural interest and aesthetics

One of two courses at Camelback Golf Club, Indian Bend had a poor reputation among local and visiting golfers. An out-and-back routing that followed the Indian Bend Wash, the course was so flat that, despite being in a desert, it would flood easily and failed to drain well even with normal irrigation.

There were a number of other issues: greens and tees were too small, there were concerns relating to safety, the course had a lack of visual and strategic quality and, with 210 acres of maintained turf and numerous non-native trees, it lacked environmental sensitivity to its location.

The club worked with Jason Straka, ASGCA to oversee a complete renovation of what would be renamed the 'Ambiente' course. The main wash occupied by the course was lowered several feet in elevation, and the fill was used to raise the new golf holes. The effect has been dramatic, with more change in elevation in a single hole than

there previously was in six holes. The raised playing surfaces now mean that the course drains better and can stay open even during moderate flood events.

"The new course will significantly cut required maintenance resources and reduce use of water, fertilizer, pesticides and fossil fuels"

Ambiente now has just 90 acres of maintained turf, with the remainder having been replanted with a mix of native trees, shrubs, grasses and wildflowers, adding visual interest and creating animal habitat. The new course will significantly cut required maintenance resources and reduce use of water, fertilizer, pesticides and fossil fuels.

CHINA MAPLE GC

Location

Dandong, Liaoning Province,
China

Architect:

Rick Robbins, ASGCA
Robbins & Associates International
www.robbsingolf.com

Project summary:

Working on rugged terrain with flooding issues and little economic activity, this new golf course project was to provide a catalyst for employment in the area. At the same time it needed to have a positive environmental impact on a surrounding area that was to become a national park.

Partners:

Toro
Jacklin Seed



Holes run alongside a large reservoir that was created by the owner

Part of a resort and national park development, China Maple GC is in a remote area that previously had little economic activity. A river flowed through the property and would flood periodically, causing damage and limiting the area's potential. The owner, Mr. Yu Cheng Bo, had grown up on the site and was introducing flood control measures, including the construction of a 350-acre reservoir, to support the resort and park project.

He briefed Rick Robbins, ASGCA to create a golf course that would fit into the mountain terrain without destroying the natural beauty of the area. It needed to complement the flood control measures he was introducing and create a catalyst for employment in the area.

The site had 260 metres of elevation change, its steep ridges draining towards the river. Robbins spent nine days walking the area with the client to identify the most suitable terrain for a 27-hole course. The holes would all lie south of the reservoir, and housing was placed in a separate area on the north side.

For the sake of both the national park and the housing development, water quality was crucial. Robbins says: "We preserved the stream valleys in their natural condition by playing across them to keep water quality high and implemented erosion control measures to reduce sediment."

As a result of the project, the economic situation of the area is much improved. The owner has now developed the entire national park infrastructure, including an entry road, parking area, information center and trails. Hundreds of local residents are employed on the golf course, manning the national park and farming ginseng in the outer areas of the course.

"We preserved the stream valleys in their natural condition by playing across them to keep water quality high"



The golf course lies within the Tianquigou National Park

COLUMBIA CC

Location:
Columbia, Missouri

Architect:
Jason Straka, ASGCA
Fry/Straka Global Golf Course Design
www.frystraka.com

Project summary:
Development of land adjacent to Columbia Country Club meant a new highway access road was needed, which would cut into four holes on the course. The club turned to Jason Straka, ASGCA for a new routing and remodeling that would allow for the land transfer.

Partners:
Wadsworth Golf Construction
Profile Products
Jacklin Seed
Sand Trapper
Advanced Drainage Systems
Rain Bird
Tee-2-Green
Eagle Golf

www.columbiacc.net



Streams have been restored to improve the water quality flowing through the course



Photos: © 2013, Dave Sansom

A development project adjacent to Columbia Country Club in Missouri required the construction of a new highway access road, which would cut into four of the club's holes. Facing the possibility of losing the property to eminent domain, and also a request by the developer to accept 250,000 cubic yards of fill, the club needed to work together with the developer and local government to find a solution that would be acceptable to all parties.

With a rich and proud history stretching back to 1921 and a reputation as one of the premier clubs in the area, Columbia CC felt it was essential for any redesign to yield no loss in par or yardage. The club turned to Jason Straka, ASGCA, who produced a new design that would accommodate the 250,000 cubic yards of fill, largely to create a large, landscaped perimeter berming that would obscure the new road and development from the course.

By rerouting and reconstructing the back nine and parts of the front nine, Straka was also able to maintain the par and even lengthen the course by 200 yards.

Furthermore, the work provided the opportunity to restore Army Corps of Engineers jurisdictional streams on two holes to improve the urban water

"In the end, the club not only saved itself but added significant numbers of members with the improved course"

quality flowing through the course. During this process, parts of the development fill were used to raise playing surfaces out of floodplains to improve drainage and maintenance of the course.

Straka says: "In the end, the club not only saved itself but added significant numbers of members with the improved course. The environmental agencies are happy that the environment has been improved and the local government and community are benefitting from the team solution."

ELY CALLAWAY GOLF & LEARNING CENTER

HONORS COURSE PRESENTED BY TAYLORMADE

Location:

Oceanside, California

Architect:

David Rainville, ASGCA Fellow
and Gary Bye
Rainville & Bye Golf Course Architects

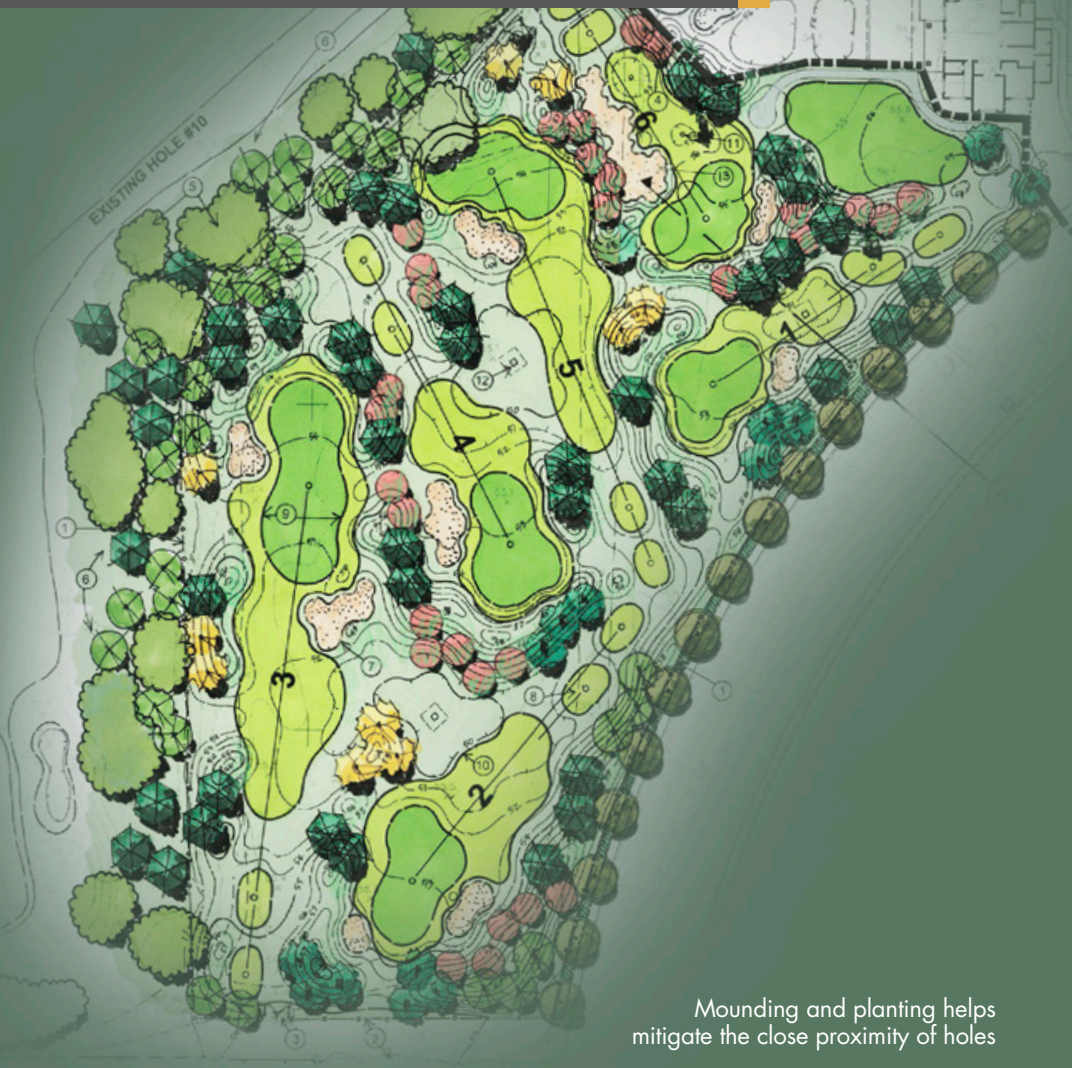
Project summary:

Pro Kids | The First Tee of San Diego wanted a second facility to extend its successful program teaching life skills and golf for children. Rainville & Bye Golf Course Architects worked with a number of partners, government departments, donors and sponsors to create a six-hole par three course, putting and chipping greens that will support 700 children every year.

Partners:

Hayer Architecture
Golf Irrigation Design & Planning
Southwest Growers and Landscaping
Lusardi Construction Company
Callaway Golf Company
TaylorMade
Tri-Dimensional Engineering, Inc.

www.thefirstteesandiego.org



Mounding and planting helps mitigate the close proximity of holes

Founded in 1994 by former NFL player Ernest H. Wright Sr., Pro Kids is a charity that teaches life skills and golf to inner city children. Pro Kids was one of the models for international junior golf program The First Tee and in 1997 became The First Tee of San Diego. For nearly two decades, its headquarters have been Colina Park Golf Course in the City Heights area of San Diego. In 2012, the charity wants to add a second facility in Oceanside, north of San Diego, to enable it to extend the success of its City Heights program.

A flat, 6.3 acre site adjacent to the municipal Oceanside Golf Course was identified and Pro Kids | The First Tee of San Diego asked golf architects David Rainville, ASGCA Fellow and

Gary Bye to create a facility that would provide maximum value to the children in the community.

The site presented a number of challenges, including those relating to existing utility rights, drainage, safety and interfacing with the adjacent golf course. Governmental approvals and permitting would be a lengthy process. Coordination between the client, project architect, project engineer and golf course architect was key to success.

The charity's Learning Center was positioned to take advantage of shared parking with Oceanside Golf Course, and practice putting and chipping greens were placed next to the building. Beyond this practice area, a six-hole par three course was

designed, with holes that range in length from 45-to-114 yards, and a layout that allows the course to be split into two sets of three holes.

Drainage channels water to out-of-play areas on the adjacent course. In heavy rainfall, low areas of the Pro Kids course can accommodate the rising water until it gradually drains off. The irrigation system has been designed to be able to use future reclaimed water.

The course is designed to ease beginners into the game. "The bunkers are varied in size, style and location to provide different shot opportunities. Greens are gently contoured to provide interest without being too difficult for entry level golfers," says Rainville.

GLENLAUREL



Location:
Rockbridge, Ohio

Architect:
Michael Hurdzan, ASGCA
Hurdzan Golf Design
www.hurdzangolf.com

Project summary:
The Glenlaurel resort in Ohio wanted a fun, unique golf experience for its guests. Hurdzan Golf Design provided them with an eight hole 'sand green' golf course reminiscent of the late nineteenth century, cut out of a pasture with minimal application and maintenance requirements.

www.glenlaurel.com/amenities/golf

Glenlaurel is an intimate resort billed as 'a Scottish Country Inn', offering accommodation, a spa and dining. Wanting to add a very low cost, but unique and fun-to-play golf course, the owner Greg Leonard approached Ohio-based Michael Hurdzan, ASGCA to provide a solution.

Hurdzan's answer was a course with grassless tees and greens, cut out of a pasture. To keep costs as low as possible, irrigation, drainage, bentgrass, rootzones and golf course paths were eliminated. Chris and Michael Hurdzan laid out the course and Leonard constructed it himself, by mowing fairways and coring tee and green wells, which were then filled with sandy loam and compacted.

The course was then ready to play. It consists of eight holes of between 45 and 218 yards and the resort rents early twentieth century wooden-shafted clubs and half-distance golf balls for those wishing to experience it the traditional way. Players use a

"The entire golf course was constructed at a small fraction of the cost of a single golf hole on a conventional golf course"

mold for shaping a mound of moist sand from which to play their tee shots, and the scorecard has a 'stymie' ruler and hole with names rather than numbers and yardages but no par.

Michael Hurdzan explains: "The entire golf course was constructed at a small fraction of the cost of a single golf hole on a conventional golf course with grass greens, and maintenance is similarly fractional." He adds: "By the way, Major champion Tom Lehman learned to play golf on a sand green golf course, just like Glenlaurel."



The eight-hole course was simply cut out of pasture

Photos: Glenlaurel

ISLAND HILLS GC



Photo: Island Hills GC

The new design at Island Hills is appealing for all types of players, helping to grow the game

Location

Centreville, Michigan

Architect:

Raymond Hearn, ASGCA
Raymond Hearn Golf
Course Designs, Inc.
www.rhgd.com

Project summary:

The goal of master planning improvements to Island Hills Golf Club was to arrest a decline in play and revenue, with design changes introduced to make the course more appealing for all types of golfer, while also introducing operational savings.

Partners:

E&M Construction
Rain Bird

www.islandhillsgolf.com

The challenges faced by Island Hills GC are common throughout the golf industry: people are sometimes discouraged from participating in the game due to the cost or time it takes to play. The fact that it can be a difficult game sometimes compounds these issues—if players are not enjoying their game, incurring cost and time seems even less acceptable.

“We felt that by helping to provide more options for play at Island Hills, the club would be able to attract new and returning players and in turn see improved revenue,” says the club’s architect Raymond Hearn, ASGCA. “These objectives could be achieved with a design approach that would also reduce the club’s operational costs.”

Hearn created an ingenious new design that included multiple short course options within the existing 18-hole championship course, so that all golfers had an option to play at a lower cost. This approach respects the requirement for a

traditional 18-hole layout while providing a variety of alternative play options.

He also remodelled existing holes to address the length of time the course was taking to play, and new teeing options allow for a shorter round. The project also saw a reduction in the surface area of fairways and bunkers, which led to a reduction in the required applications and maintenance, and therefore cost savings.

New and remodeled tees and bunkers, coupled with new grassing limits, dramatically improved the strategy, shot value and playability on each hole.

Golfers love the changes, with revenue having already increased by 19% since 2012. Rounds played at Island Hills have risen by 37%. The short course configurations allow for rounds that take from 40 minutes to three hours to play, and have been particularly appealing to senior, women and junior golfers.

To read more about this project, download Issue 12 of By Design from www.asgca.org.

“We felt that by helping to provide more options for play at Island Hills, the club would be able to attract new and returning players”

Plan images of the sixth hole before (top) and after the renovation show a massive reduction in bunker and fairway surface areas, which reduces maintenance time and cost



LAKE VENICE GC



The Federal Aviation Administration's upgrade to taxiways, runways and safety areas at Venice Municipal Airport necessitated a 10-acre land swap with neighboring Lake Venice GC, a 27 hole pay-to-play facility, owned by the City of Venice and built and operated since 1959 by Venice Golf Association.

The club hired Jan Bel Jan, ASGCA to oversee a redesign of the third nine and the construction of a new practice area. Bel Jan was asked to keep the course walkable and provide alternate tees, as well as addressing the 'prison links' appearance created by the chain link fence. All of this was required within a modest budget and a short time frame that would avoid loss of high season revenues.

Bel Jan's re-routing was cleverly planned to save as much of the original nine holes as possible, meaning that four greens and four teeing locations were retained and upgraded to match

the quality of the newly-designed and constructed tees and greens.

"We focused on keeping the greens in close proximity to the most frequently used tee of the following hole, to maintain the course's walkability, and added new forward tees for improved scoring, more fun and a quicker round of golf that can be more enjoyable for more players," says Bel Jan.

Practice facilities were relocated, keeping them as close to the professional's shop as possible but away from the runway safety area. This included a chipping area and, close to the 19th tee, a new putting green was constructed.

Finally, the overall aesthetic of the course has been much improved by landscaping that focuses the golfer on the holes, rather than the airport and its perimeter fence, the appearance of which has also been neutralized by green vinyl coating and low-growing shrubs.

Location

Venice, Florida

Architect:

Jan Bel Jan, ASGCA
Jan Bel Jan Golf Course Design, Inc.
www.janbeljan.com

Project summary:

FAA upgrades to Venice Municipal Airport meant that its perimeter fence would need to encroach onto the property occupied by the Gulf Side Nine of the neighboring Lake Venice Golf Club. ASGCA architect Jan Bel Jan oversaw the subsequent redesign and improvements to the 27-hole pay-to-play facility, within a tight budget and deadline.

Partners:

Barbaron, Inc.
AquaTurf International
Mondragon Golf, Inc.
Toro
American Infrastructure Development
Owen Ames Kimball Co.
Gulf Breeze Landscaping
City of Venice
Curb Systems of SW Florida
Advanced Asphalt of SW Florida
Raph White Turf Consulting

www.lakevenicegolf.com



Pipe drainage was installed to carry flow off runways and under the course

MOHEGAN SUN CC



A large bunker bisects the fairway on the par-four seventh hole

Mohegan Sun is a casino resort in Baltic, Conn., created in 1996 as a destination for gaming, shopping, dining and entertainment. In 2007, the resort's owners, the Mohegan Tribal Gaming Authority, purchased Pautipaug CC in Baltic, with the aim of bringing a high-quality golf experience under the Mohegan Sun umbrella.

Following the purchase, the owners decided to embark on a comprehensive golf course enhancement plan, driven by the imminent expiry of a water allocation permit and need to develop a self-sustaining water resource management program.

At the same time, they felt the course was in need of updating to accommodate a rise in play that was expected from existing and new members, and resort guests. Improvements to tees, greens and irrigation were all required.

Mohegan Sun turned to Robert McNeil, ASGCA to oversee enhancements to what would become Mohegan Sun CC, and provided him with the flexibility to work to a single

overall budget to achieve the best possible results.

Partnering with irrigation and construction specialists, McNeil and his team developed a self-sustaining system of lakes which were integrated into the design and strategy of several new holes. All drainage and rainfall is captured within the lakes, which have also eliminated historical flooding of adjacent roadways.

New tee complexes were built on all holes providing enlarged surfaces and more options for length and angle of play. 65 new bunkers were constructed in a consistent style that is unique to Mohegan Sun and work was also completed on greens and cart paths.

The improvements have had an immediate effect, with existing members retained and many new members engaged. The design goals were achieved and the course now avoids closure following rain.

"Credit should be given to the late Geoffrey Cornish, ASGCA, the course's original designer," says McNeil. "Part of the reason for the purchase was the overall soundness of the golf course's lay on the land."

Location:
Baltic, Connecticut

Architect:
Robert McNeil, ASGCA
The Northeast Golf Company
www.northeastgolfcompany.com

Project summary:
A comprehensive golf course renovation to accommodate a forecasted increase in play and the need to develop a self-sustaining water resource management program. The project also resulted in a reduction in maintained areas and a new character and strategy for the course.

Partners:
NMP Golf Construction, GCBA
J. Sarkisian Associates, ASIC
Jacklin Golf
Winding Brook Turf Farms
DAF Services – Water Management
MacFarland Johnson – Project Engineer

www.mohegansun.com/golf



The project involved lake excavation (top) and the development of a new bunker style (mid-construction, below)

ROCK MANOR GC



Photos: Joe Bausch

Location:
Wilmington, Delaware

Architect:
Lester George, ASGCA
George Golf Design, Inc.
www.georgegolfdesign.com

Project summary:
A huge infrastructure project in Delaware looked set to spell the end for Wilmington's historic municipal golf course, Rock Manor. But Lester George, ASGCA stepped in to help the city retain and improve the golf course, despite the multitude of constraints created by highway construction work.

Partners:
Wadsworth Golf Construction

www.rockmanorgolf.com

The largest state project in Delaware's history was the transformation of the interchange between the I-95 freeway and Route 202, in the city of Wilmington. Rock Manor Golf Course, which opened in 1922, was for years the city's only municipal golf course. It is situated directly alongside the interchange, and had been encroached upon over the years as the highways expanded, reducing it to a par 67 of 5,600 yards. It was expected to be lost entirely as part of the new construction project.

However, the city asked George Golf Design (GGD) to create a master plan for the course that could work within the multiple constraints of the project. GGD would also coordinate management of the requirements of more than ten government agencies.

The course is adjacent to the local drinking water supply and residential developments. A key requirement was for the site to become part of the flood attenuation solution for the area. The nearby Matson Run Watershed had flooded following Hurricane Hugo, and loss-of-life was a reality for nearby residents.

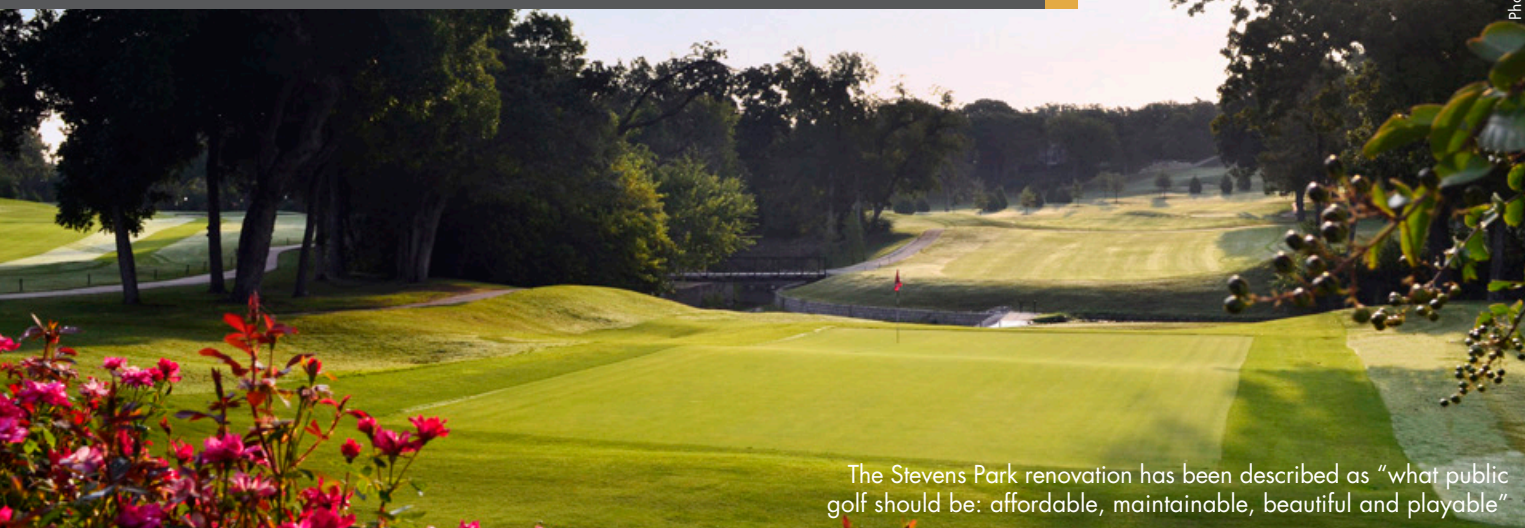
GGD oversaw this huge and challenging engineering project, and managed to create a 6,400 yard, par-71 layout that fulfilled all the infrastructure requirements and won several design awards in the process. "Creating flood attenuation working around utilities and routing around a major interchange challenged us to produce something playable, fun, beautiful and environmentally improved," says Lester George, ASGCA.



Rock Manor Golf Course was engineered to provide flood attenuation for the local area

STEVENS PARK GC

Photos: Trey Kemp



The Stevens Park renovation has been described as “what public golf should be: affordable, maintainable, beautiful and playable”

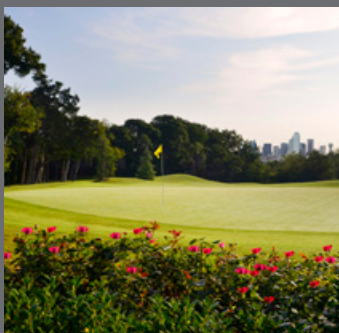
Location:
Dallas, Texas

Architect:
John Colligan, ASGCA
Colligan Golf Design
www.colligangolf.com

Project summary:
John Colligan, ASGCA completed a comprehensive 18-hole renovation of the Stevens Park municipal golf course in Dallas, Texas in just ten months. The dramatic transformation has resulted in a 100 percent increase in the number of rounds played.

Partners:
Wadsworth Golf Construction
Rain Bird
Trinity Turf
Irrigation, Planning & Design

www.stevensparkgolf.com



There were many driving factors for the renovation of Stevens Park, a public course owned by the City of Dallas, but the strongest was competition. A number of new courses had opened in the local area and, combined with the renovation of some existing courses serving the same market, Stevens Park was finding it difficult to retain its customer base.

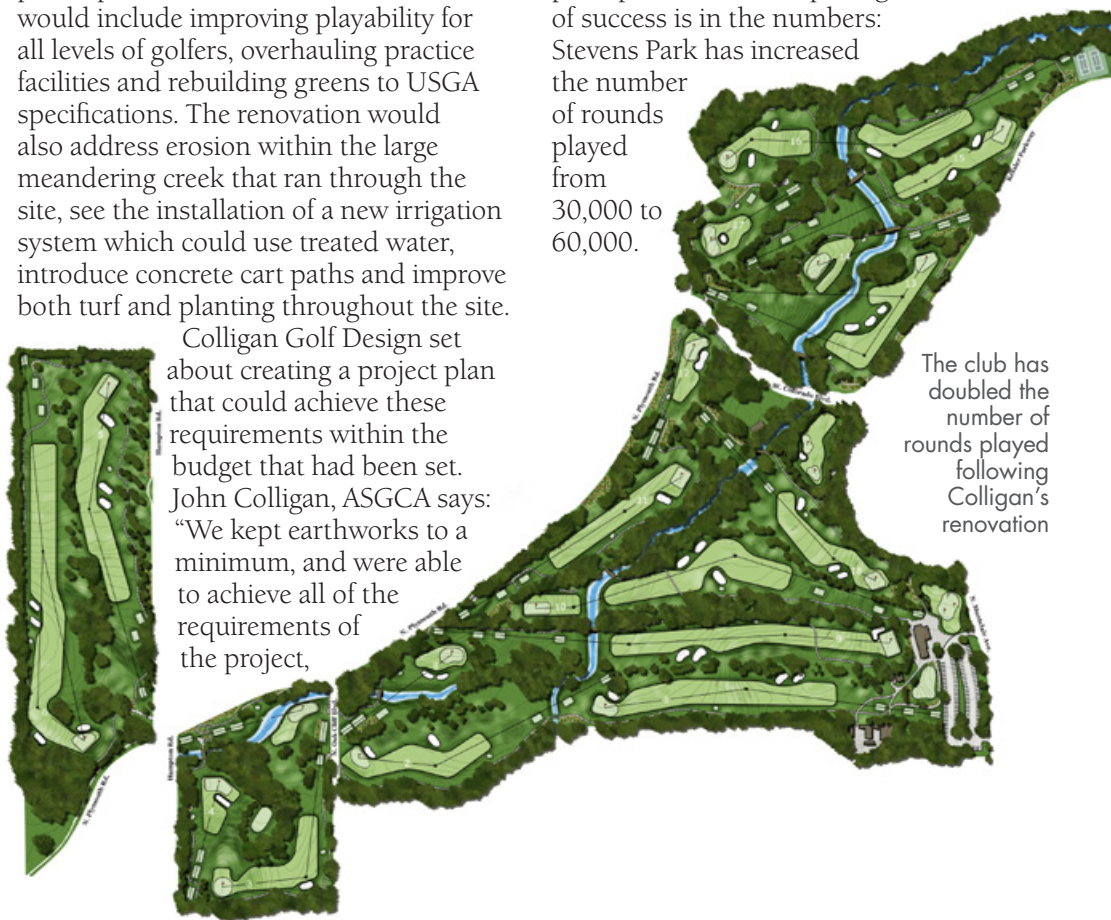
The club employed Colligan Golf Design to oversee a comprehensive renovation of the course, and set about developing a wish list with the city, golf pro, superintendent and architect. This would include improving playability for all levels of golfers, overhauling practice facilities and rebuilding greens to USGA specifications. The renovation would also address erosion within the large meandering creek that ran through the site, see the installation of a new irrigation system which could use treated water, introduce concrete cart paths and improve both turf and planting throughout the site.

Colligan Golf Design set about creating a project plan that could achieve these requirements within the budget that had been set. John Colligan, ASGCA says: “We kept earthworks to a minimum, and were able to achieve all of the requirements of the project,

incorporating new bermudagrasses throughout the course, adding two new bridges and renovating three others, completely overhauling the drainage and irrigation system and creating a landscape design that included the planting of 900 trees and 2,000 rose bushes, along with various other ornamental shrubs.”

The renovation was completed within budget and has received rave reviews from players and the media, being touted as “what public golf should be: affordable, maintainable, beautiful and playable”. But perhaps the most compelling evidence of success is in the numbers:

Stevens Park has increased the number of rounds played from 30,000 to 60,000.



The club has doubled the number of rounds played following Colligan's renovation

TWIN OAKS CC

Location:
Springfield, Missouri

Architect:
Todd Clark, ASGCA Associate
CE Golf Design
www.cebolfdesign.com

Project summary:
Twin Oaks CC worked with architect Todd Clark, ASGCA Associate to develop a dual purpose practice facility that served as a driving range but could also be configured as a short course that would promote growth of the game.

Partners:
Mid-America Golf and Landscape
SYNLawn
Toro

www.twinoakscountryclub.com



The range now has a large grass teeing area with an all-weather synthetic strip behind

Established in 1955, Twin Oaks is a member-owned country club in Springfield, Missouri. With its practice facility requiring an update, the club was also keen to explore ways in which it could encourage growth of the game, by providing beginners and juniors with opportunities to play.

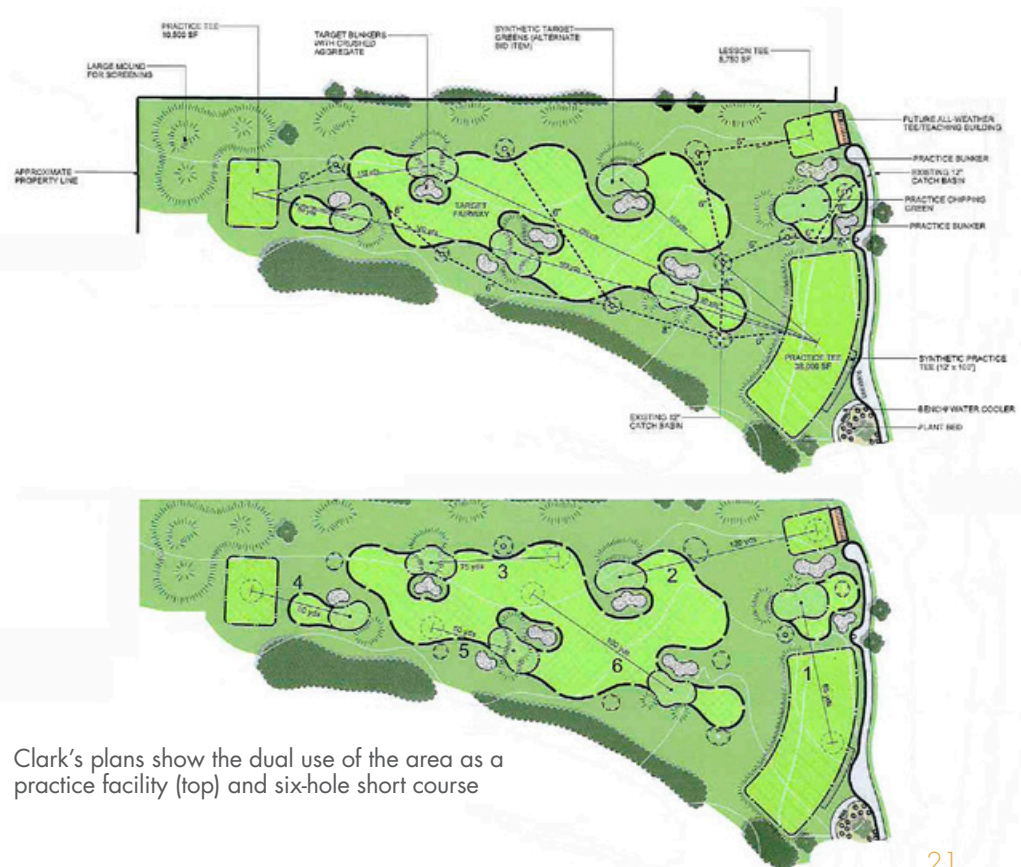
With no additional land available, Twin Oaks required a solution that would make the best use of the space occupied by the existing practice area. It consulted Todd Clark, ASGCA Associate, who proposed a new 'convertible' facility. His design allows for a regular configuration that has a teaching tee, chipping/approach/bunker shot area, and a full driving range with target greens. But the layout can also be used as a short course with six holes that vary in length from 50-to-120 yards.

Synthetic greens were used as they could withstand both the daily use as a practice range and also be smooth for putting on once or twice a week. The main practice tee was rebuilt with improved alignment to the range, at an increased size and with an all-weather synthetic tee strip behind. The north end of the range has another practice

tee and large mounding to screen adjacent properties.

Clark says: "As more than just a range for 'beating balls', a short

course can be a tremendous asset to a private club to ensure the next generation of golfers has access to the course at an early age and skill level."



Clark's plans show the dual use of the area as a practice facility (top) and six-hole short course

“There is a crucial difference between the length of time we take to play and the speed at which we play

Pace of play | Toby Ingleton

In the slow lane

Most golfers prefer to play at a quick pace. Toby Ingleton asks if there is any room for those who live life in the slow lane?

A few years ago, at a golf business conference in St Andrews, Scotland, I attended a session where a panel of golf industry experts was giving insight on key issues facing the game. When the moderator asked the audience for questions, a delegate stood and asked ‘how can we accommodate golfers who want to play slowly?’

One of the distinguished panel members quickly responded, ‘it’s a huge problem—we must come together as an industry to share ideas on how we can speed up the game’. Other panel members nodded in agreement and introduced some of their ideas for faster play, before moving on to a new topic. The bemused delegate sat back down.

Once the session had ended I approached him to check that—unlike everyone else in the room, it seemed—I had heard the question correctly. With a thankful smile he confirmed I had, explaining that at his club they were working very hard to grow the game of golf. Some new golfers had expressed their unease at venturing out onto the course for fear of holding up the quicker and sometimes less-than-friendly members. Without the space for a dedicated beginners’ facility, he was hoping to come back from the

conference with a practical solution for accommodating these slower players.

I usually like to play golf quickly and welcome initiatives that aim to speed up the game, like the USGA’s ‘While We’re Young’ program, referenced on page 5 of this issue. But we should be conscious that a blind pursuit of fast play could be counterproductive to efforts to grow the game.



Forcing beginners to play at a speed that doesn’t match their ability is likely to put them off. Like us all, I was once a novice. I still regularly play like one, so I understand why the obligation to let a stream of impatient two-balls play through can significantly diminish enjoyment of the game.

But potential golfers are put off by the length of time the game takes to play, we are told. Yes, but there is a crucial difference between the length of time we take to play and the speed at which we play. Instead of having a marshall chase beginners round 18 holes in three hours, find a way in which they can enjoy playing, say, six holes in two hours.

Of course this could seriously hamper a club’s revenue-generating potential, if it’s not handled carefully.

At Makai Golf Club in Hawaii, operator Troon Golf has introduced a new program to help speed up play. Part of this initiative sees the first six tee times of the day, from 7am, set aside as ‘Pacesetter Times’ for faster players.

Maybe a similar approach could be adopted for slowcoaches, having tee times with special rates reserved late in the day when there’s no longer enough light to accept eighteen-hole green fees. This would allow golfers to play a handful of holes at pretty much whatever pace they like, and generate revenue from slots that would otherwise be unused.

It’s a complex issue—what works for one club may not for another. Golf course architects have the knowledge and experience to help clubs make good decisions that will suit their individual circumstances.



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www.rainbird.com



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A silhouette of a golfer in mid-swing, positioned in front of the large text.

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