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Design excellence

Welcome to this special edition of By Design, devoted entirely to the fifth annual Design Excellence Recognition Program from the American Society of Golf Course Architects.

Since its creation, the program has highlighted the innovation and problem-solving skills required of today’s golf course designs, from new 18-hole layouts to practice facilities and renovations of all sizes.

Every year I look forward to discovering more about the projects that have been highlighted as the best of golf course design, and I am always impressed by the approaches that fellow ASGCA members have taken to the expectations set by their clients.

This year, 11 facilities have been honored by the program, and the project profiles on the following pages provide a fascinating insight into the work of golf course architects.

I would like to congratulate all of the clubs involved, and thank them for trusting the design of their most valuable asset to an ASGCA member.

Greg Martin, ASGCA
President
American Society of Golf Course Architects

BY DESIGN

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Sustainable developments

The fifth annual Design Excellence Recognition Program highlights some of the most innovative golf design projects to have been completed in the past year.

The problems faced by golf facilities are often perfectly clear. The solutions, however, can be more difficult to identify. The issues that a club faces may well be completely new to them. But ASGCA members have, on average, experience with 147 different projects over 29 years. It’s a wealth of experience upon which to draw, not to mention the extensive network of experts they can consult, to develop the best solution for their clients.

The projects selected for this year’s Design Excellence Recognition Program address a wide range of issues, from making the best use of a small space for a practice facility, to the development of a brand new 18-hole golf course within a new residential community.

One common feature shared by all the projects featured on the following pages is that the solutions proposed by ASGCA members are sustainable; and their designs have been created with economic prosperity of the club in mind, to be an asset for the society, and to deliver environmental gain for the long-term.
Nathan Crace, ASGCA Associate, has designed a multifunctional practice facility that is helping University teams to succeed. Read more on page 17.

Dana Fry, ASGCA, has combined meticulous planning with collaboration to exceed client expectations. Read more on page 14.

Jan Bel Jan, ASGCA, has overseen a two-course renovation that has increased revenue and player satisfaction. Read more on page 13.

Scot Sherman, ASGCA, has completely renovated Hilton Head Island’s first golf course. Read more on page 16.

Dr. Michael Hurdzan, ASGCA Past President, has delivered a smart short game design for a site prone to flooding. Read more on page 12.

Doug Carrick, ASGCA Past President, has spent 20 years working on turning Lebovic Golf Club from vision to reality. Read more on page 10.

Greg Martin, ASGCA President, has taken an environmental approach to a comprehensive golf course renovation. Read more on page 18.

Michael Benkusky, ASGCA, has given Arlington Lakes the ability to offer a quicker and cheaper golf experience. Read more on page 7.
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Handling almost 40,000 rounds a year, Arlington Lakes Golf Club in Arlington Heights, a suburb of Chicago, has long been extremely popular with seniors and league teams. But the 37-year-old course still had many of its original features, and was becoming outdated.

The Arlington Heights Park District enlisted the help of Michael Benkusky, ASGCA, to develop a plan to improve bunkers and greens, adding to the golfing experience while reducing maintenance costs. Another important aspect of the plan was to appeal more to the community, particularly juniors and families. As a Park District facility, funded by taxpayers, it was important that the updated course had an emphasis on value for money.

“In reviewing the course and beginning the planning process, the first thing that we noticed was how the course was routed,” says Benkusky. “At that time, the course had three holes on the back nine that returned to the clubhouse. We decided to swap the nines, so the third, sixth and ninth holes returned to the clubhouse.”

This change allowed the golf operations manager to incorporate golf rates for three- and six-hole rounds, along with the current nine- and eighteen-hole rates. This provided a low-cost alternative where adults can play from as little as $8 and junior and seniors from $5.

The new arrangement also meets the needs of those looking for a golf experience that is less time consuming. The three-hole option takes less than 30 minutes and the six-hole course less than an hour. Golfers now have an option to use the course before work or even during their lunch break. It is also great for families, who can come out in the evening for a few holes and spend quality time together.

To help encourage junior and beginner golfers, Benkusky also added a new set of tees that allows the course to be played at 2,900 yards. From these tees, the par fours play 130-180 yards, giving these golfers a better chance to reach greens in regulation and improve their score, making the game more fun. This, combined with less time-consuming options, means these golfers can learn the game without becoming frustrated or bored, encouraging them to return to the course and helping improve participation among the local community.
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Millions of Americans with disabilities would like to learn to play golf. But a typical 18-hole golf course can make them feel uncomfortable or out of place. They might find it difficult to access the golf course, be concerned about how well staff will be able to assist them in learning the game, or worry about having an adverse impact on other golfers.

Addressing these issues, a new short course at the Missouri Golf Association’s Ken Lanning Golf Center in Jefferson City, Missouri, was designed by Todd Clark, ASGCA, to be fully accessible for disabled people, as well as being suitable for children and beginners.

The Missouri Golf Association’s Junior Golf Foundation shares the site of the Ken Lanning Golf Center with an existing nine-hole par-three course and driving range (Turkey Creek Golf Center) and the existing clubhouse is also home to the Missouri Golf Association’s executive offices.

The new nine-hole par-three course features holes ranging in distance from 48 to 134 yards. Each hole has two zoysia grass tees and one synthetic tee, built adjacent to and level with the concrete cart path to allow easy access for people using wheelchairs.

The greens range in size from 2,700 to 3,050 square feet and are made of synthetic turf with sand infill. The synthetic turf allows for access by wheelchairs and motorized carts without the worry of damage. The greens can be playable quickly after rain as well, which is important given the site is prone to flooding. Each green is linked to the cart path with subtly sloped natural turf areas.

Three lakes were developed to capture stormwater for irrigation, and the fill material was used to add shape to this extremely flat site. All mounding and bunkering was kept very mellow, further allowing the entire site to be accessed by all golfers very easily.
Environmental design

A new golf development in Aurora, Ontario, was designed with extensive consideration to environmental factors.

Situated on approximately 260 acres of environmentally sensitive land on the Oak Ridges Moraine near Toronto, Canada, Lebovic Golf Club required 20 years of rigorous planning, environmental study and construction to complete.

Designing a workable golf course layout along with 75 housing lots on the compact site required a sensitive design that preserved important natural features, including 45 acres of forest, kettle wetlands, a stream tributary and the natural terrain character of the Oak Ridges Moraine.

Restrictions placed on the use of ground water meant the design had to rely solely on storm water runoff and treated effluent as the sources of water for irrigation.

The course design for Lebovic Golf Club sees the first seven holes located on the west side of a heavily travelled regional road, and the remaining 11 holes on the east side. The ninth and eighteenth greens are situated relatively close to a tunnel crossing under the road that connects the finishing holes to the clubhouse on the west side of the road. A single long cul-de-sac extends eastward from the road providing every one of the 75 homes with a direct view of the golf course.

The environmentally sensitive design channels water runoff from the residential development into a series of ponds, where it is recycled for irrigation purposes. All of the ponds are interconnected, allowing the levels to be controlled for water storage and use. The main irrigation pond, located adjacent to the seventh green and maintenance facility, blends the treated effluent with storm water runoff before being applied to the golf course.

The course layout preserves and integrates a number of natural features into the individual hole designs, including four kettle wetlands, a newly created wetland, a naturalized stream corridor and 45 acres of protected forest.
In the midst of a historic drought and facing government regulations on water use, Thousand Oaks was determined to implement a city-wide conservation effort, to include their municipal golf course, Los Robles Greens.

The existing golf course design was costly to maintain, and bans were already in place on selected pesticides and native tree removal. The city was determined to create a socially-accepted golf course that was mutually profitable and environmentally beneficial. Jason Straka, ASGCA, was tasked with creating a playable, fun, profitable and visually stunning golf course that used the least amount of water and other inputs necessary.

The design team took inspiration from the renovation of the Pinehurst No. 2 golf course in Pinehurst, North Carolina. Although in a different ecosystem, the changes to the course were still very applicable. To study the intricacies of the renovation and management, Straka visited the course with Pinehurst’s director of grounds and golf course maintenance Bob Farren and the No. 2 course’s superintendent John Jeffreys.

Straka’s subsequent redesign of Los Robles Greens removed 30 acres of turf and naturalized 40 acres with approximately 55,000+ native and adapted drought and pest resistant plants. These naturalized areas have been covered with mulch made on site by recycling 15 years of accumulated green waste.

The long-term goal is to allow leaf litter from live oak trees to accumulate and build up in the natural areas, much the same as pine straw gathers in the natural areas of Pinehurst No. 2. Not only did Los Robles Greens previously irrigate turf in these areas, but they spent countless labor hours moving them, picking up leaf litter, and applying fertilizers and pesticides. The future now holds a drastic reduction in the amount of water, fertilizer, pesticide and fossil fuel used at the facility as a whole, exceeding the city’s original goals.
Rebirth of a visionary course

The Mountain Shadows Golf Club in Paradise Valley, Arizona, was originally designed by Arthur Jack Snyder, ASGCA, and opened in 1961. The par-56 layout was one of the first 'executive' courses, catering to those who may have time to slip away for a few hours, but not a whole day. Snyder’s vision also included the design for the entire Mountain Shadows community—a resort site and 127 single family homes. The design was well ahead of its time—an 18-hole layout on less than 40 acres with short holes in all varieties. Newspaper ads highlighted its virtues: “less time to play, and enjoyable for the whole family.”

By the 1990s, the resort and golf fell into disrepair, and in 2005 it was sold with a view to redevelopment. The resort closed, but golf remained open. The problem for the new owners was twofold: how to get redevelopment plans approved, and how to reconfigure the course to recapture the charm that Snyder has originally created.

Forrest Richardson, ASGCA, worked on the project from 2005 to 2015 and attended more than 30 public hearings in an effort to appease the community and town towards a suitable redevelopment plan.

The community wanted no new resort buildings more than two stories high, but their beloved golf course to remain. A compromise was ultimately reached where the new, fully rebuilt resort would expand to accommodate the height restriction, slightly reducing the golf course footprint.

Richardson developed a new golf plan for 18 par-three holes, with acreage reduced by 25 percent and turf from 33 to 13.5 acres. “Reducing the managed turf was simply the right thing to do,” he says. “Because this part of Phoenix has no alternative water source, such as reclaimed water, we knew up front that sustainability in terms of water conversation was paramount.”

The result is The Short Course at Mountain Shadows, one of fewer than ten high-end resort 18-hole par-three courses in the world. The course length is 2,400 yards, with holes ranging between 75 and 195 yards. Features include an innovative par-2 bonus hole ‘Forrest Wager,’ and a double green for holes 13 and 14.
The NCR Country Club in Kettering, Ohio, has a highly-rated 36 holes of golf designed by Dick Wilson, but was without a credible short game and learning center.

The club commissioned Hurdzan Golf Design to help address this shortcoming. Several possible sites on the property, which is the drainage terminus for a massive urban area, were identified as possible locations for the facility. These included an unused 10-acre parcel of land that had little use because it would flood several feet deep, several times per year—to the extent that it had been affectionately named ‘Lake Louise’ by members.

ASGCA Past President Dr. Michael Hurdzan, ASGCA, and his partner Dr. Christopher Hurdzan knew the area would challenge their drainage expertise and golf course design skills, but could see its potential.

The designers first had to determine the velocity, volume, frequency, and duration of flood events, as well as where and what proportion of drainage entered the site. Next they established high-water flood elevation, and then began a backward-planning design process of flood containment detention and programmed release. The final drainage product consisted of three separate and sculpted dry detention basins, connected by pipes and surface swales to a point where a pumping plant could move the water off-site. A short-game center was designed on an area between the basins, where the ground was elevated by spoil from the basins. The center consists of five half-size greens, a two-acre bentgrass practice fairway—surrounded by bluegrass rough and punctuated by bunkers—including a 10,000 square feet centerpiece bunker. They also designed parking for cars and golf cars for members to access the facility.

Members now just help themselves to a bag of balls to drop wherever they want to practice, collecting them when finished, and leaving the bag for another member to use. The popular facility is the first sight to greet members and guests from the entrance drive, allowing the club to make a spectacular opening impression.

The drainage system works perfectly. The facility can be used almost immediately after a rain event, with the ponds formed within the three basins creating water hazards for the short practice holes.
A team effort
Great communication and teamwork were the keys to a successful renovation of the Heron Course at The Oaks Club in Osprey, Florida.

The Heron Course at The Oaks Club in Osprey, Florida, faced major infrastructure problems, including poor drainage, issues with playability, inadequate irrigation, poorly constructed greens and bunkers, overgrown trees, and insufficient tees and tee space.

The membership at this 36-hole private club was cautious about change because of a contentious renovation of their other course. That project was deemed not to have delivered on certain key promises.

A key challenge was convincing residents—who are all members of The Oaks Club, but not all golfers—that the Heron Course needed to be rebuilt to accomplish their goal of becoming the best 36-hole club in the region.

The design team worked tirelessly to communicate with two different committees and all parties involved in the project. Outreach activities included club surveys, numerous town hall meetings, over 100 individual homeowner meetings, realtor meetings, cocktail parties, board meetings, club staff meetings, weekly architect and superintendent led course tours, individual golf association meetings and presentations, and weekly e-mail blasts with photos and video.

A highly skilled team was assembled to cover all facets of the project. Research, analysis and planning were extremely thorough and detailed. The team-oriented approach eliminated delays, misunderstanding and change orders. State-of-the-art infrastructure was implemented, with drainage, bunkers and greens that have since weathered tropical storms and a hurricane. Playability was greatly improved and the redesigned Heron Course has received rave reviews.

The originally reluctant membership was won over by the process and results of the project, which was delivered on time and within budget.
A comprehensive renovation of the two courses at Pelican’s Nest Golf Club has transformed the golf experience for players of all abilities.

The first course at Pelican’s Nest Golf Club in Bonita Springs, Florida, opened in 1985. Over the following 10 years, 18 additional holes were built in phases, and rerouting occurred with every new phase. This approach meant that many inconsistencies had become evident across the two courses. The varying age of greens, along with blocked drainage and inconsistent soil profile, meant each performed differently. Bunker sizes, shapes and depths had changed over 30 years, altering the strategy of the holes. There were a number of additional issues too: water wells were compromised during drought, meaning salt content in the well water was too high to grow quality turf; fairway turf was contaminated; slopes and drainage were problematic; traffic patterns left areas with extreme wear; trees were creating excessive shade for healthy grass growth; and invasive exotic species had proliferated.

Jan Bel Jan, ASGCA, was hired to conduct a full renovation, to address these problems while giving each course a unique identity, a uniform appearance and consistent maintenance practices. Greens were rebuilt to their original design, with tweaks to allow for more rounds and Stimpmeter readings of 11-12. Sub-surface drainage for a portable SubAir system was installed, as well as over 1.25 miles of HDPE pipe to take reclaimed water to an irrigation pump station. A pump blends well water with reclaimed water to manage salts in real time and reduce water use, improving water and power efficiency. Excavated mix has been used to create additional tees over the two courses and raise elevations of fairways that were too close to the water table, and holes with severe slopes and/or compromised drainage have been regraded. Fairways have been re-grassed using a contemporary turf and long-term maintenance costs have been reduced by eliminating bunkers that did not contribute to strategy or aesthetics, while a new bunker lining system reduces erosion during intense rain events.

The amount of irrigated maintained turf has been reduced and replaced with appropriate, attractive, low-maintenance plants and/or crushed shell highlighted by native pollinator plants. Invasive plants and other trees causing shade on greens and tees have been removed, with areas re-landscaped with native plants.

The renovation program has achieved its desired results. The courses have retained their strong ‘test for the best’ ratings from the back tees, while gaining new ratings suited to shorter hitters from the new forward tees. The high ‘fun factor’ has translated to measurable increased satisfaction, leading to improved handicaps for members and more rounds, guest play and revenue.
When the Goodwin family purchased The Sea Pines Resort in 2005, they were thrilled to have stewardship over the historic property they knew so well. However, the challenge to improve their facilities was daunting. “It was blatantly obvious that our assets were tired and needed a lot of work,” said Matthew Goodwin, chairman of the resort.

In the years since they built two new clubhouses and a beach club, and renovated two of the three golf courses at the resort. Their attention then turned to the Ocean Course, the first golf course ever built on Hilton Head Island. The old course was choked with trees, its infrastructure was dated, conditions were marginal and the layout did not fit well into its native Lowcountry surroundings.

The Sea Pines team selected Love Golf Design to assess the Ocean Course and specifically address the agronomic, infrastructure, playability, strategic and aesthetic shortcomings evident on the property. The obvious solution was to take advantage of plentiful land available and build a completely new course in place of the old layout. So, the resort worked with Scot Sherman, ASGCA, Davis Love III and Mark Love to formulate a plan which was only limited by the course’s property boundaries.

“As the first eco-planned destination in the U.S., Sea Pines has become known for its respect of the surrounding environment. However, because the owners wanted to build a strategic course that was also player friendly, creating width was imperative,” explains Sherman. During an extended permit process, the team worked with various agencies to remove more than 500 trees, reposition lagoons, and re-route several holes while also infusing a native landscape into the property. The resulting course, renamed Atlantic Dunes, includes all new greens, tees (including a new ‘family course’), bunkers, irrigation, drainage, turfgrass, cart paths and bridges, all thoughtfully designed to evoke a seaside ambience.

The golf course style is distinctly timeless and blends with the Lowcountry feel accented by restored dunes, 50,000 new seaside grasses, coquina shells, and the area’s native pines and oaks.

“Sea Pines is one of my all-time favorite places to play and visit, so we’re excited Atlantic Dunes will be in line with the great golf offered by Harbour Town and Heron Point,” says Davis Love III.
Following evaluation of a number of options, the University of Southern Mississippi (USM) decided to locate its new short game facility on an area of wooded land that was available to them at the prestigious Hattiesburg Country Club, just a few miles from their main campus in the city of Hattiesburg, Mississippi. 

Their challenge was to accommodate a large short-game green and separate practice putting green into the 3.5 acre site adjacent to the club’s driving range, without negatively impacting the wetland that cuts through the property.

After studying the land with USM men’s golf coach Jerry Weeks, golf course architect Nathan Crace, ASGCA Associate, proposed to make best use of the space available by designing a long meandering short-game green near the middle of the property, that can be approached by fairways on both sides.

One fairway extends from the short game green toward the northwest corner, giving players up to 110 yards to play shots into the green. The other fairway goes in the opposite direction, towards the club’s chipping green and practice tee. With two fairways, players have more practice options, and can take shots to the green from multiple different angles, distances, lies and elevations.

Originally a large drainage pipe was planned for the lowest area of the land, which would have allowed for that part of the site to be used for added fairway and a new road to the maintenance facility. The discovery of the wetland forced the relocation of that original road, but meant that funds planned for the large drainage pipe could be saved. Crace adapted his plans accordingly, improving the wetland to create an aesthetic feature that not only provides separation between the short game green and the new putting green, but also creates a natural filter for runoff.

The completed short game area is a resounding success. The USM men’s team won their first event after the facility opened, with players crediting their success to the improved practice available on the new facility.
Originally built in 1922, the course at Wilmette Golf Club has undergone a variety of modifications over its 90-year history. Greens were constructed or reconstructed in the 20s, 40s, 70s and 90s. The course had an assortment of bunker styles, shapes, sizes and infrastructure. Tees had little or no uniformity. And some beautiful stands of oak trees were obscured by new plantings that had overgrown fairways.

The course had poor drainage capacity and, due to its proximity to the North Branch of the Chicago River, suffered frequent flood damage.

These factors led to numerous turf issues, and maintenance became reactive to flooding and the summertime heat stress, with playability suffering.

The challenge was to enhance this public golf course to better serve the golfing community, providing wider playing corridors with tougher green settings, while simplifying maintenance and creating a golf course that was more resilient to rain events, with sustainable development options.

After extensive research, ASGCA President Greg Martin, ASGCA, created a master improvement plan. It called for 13 new greens to conform with the five existing USGA greens, full renovation of all bunkers, new tees for 12 holes, a full drainage system overhaul, ‘through-the-green’ shaping and irrigation upgrades.

Most importantly, the plan called for water management solutions focused on solving the drainage and maintenance problems and reducing the impact of floods on golf-specific areas. Ponds were expanded to accommodate greater storm surges, and connected with a bioswale that meandered through the course and slowed the movement of water during rain events. Wetlands were introduced to provide active buffer systems and improve water quality. And using the material generated by these expansions, fairways and playable areas were raised to acceptable standards.

With the renovation complete, maintenance is now focused on tees, greens, fairways and bunkers, and golfers are enjoying the more consistent conditions. The course can now withstand two-day rainfall totals of 2.5 inches, which would have previously halted play and required significant clean-up and restoration. Turf resiliency and water quality is better, neighborhood storm water management has been expanded and the environment is more diverse.

The renovation of Wilmette Golf Club has been successful thanks to the environmental approach to the project. Golfers have been enthusiastically supportive throughout the process and—describing the revitalized course as ‘fun,’ ‘beautiful,’ ‘challenging but fair’ and ‘enjoyable’—are thrilled with the outcome.
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