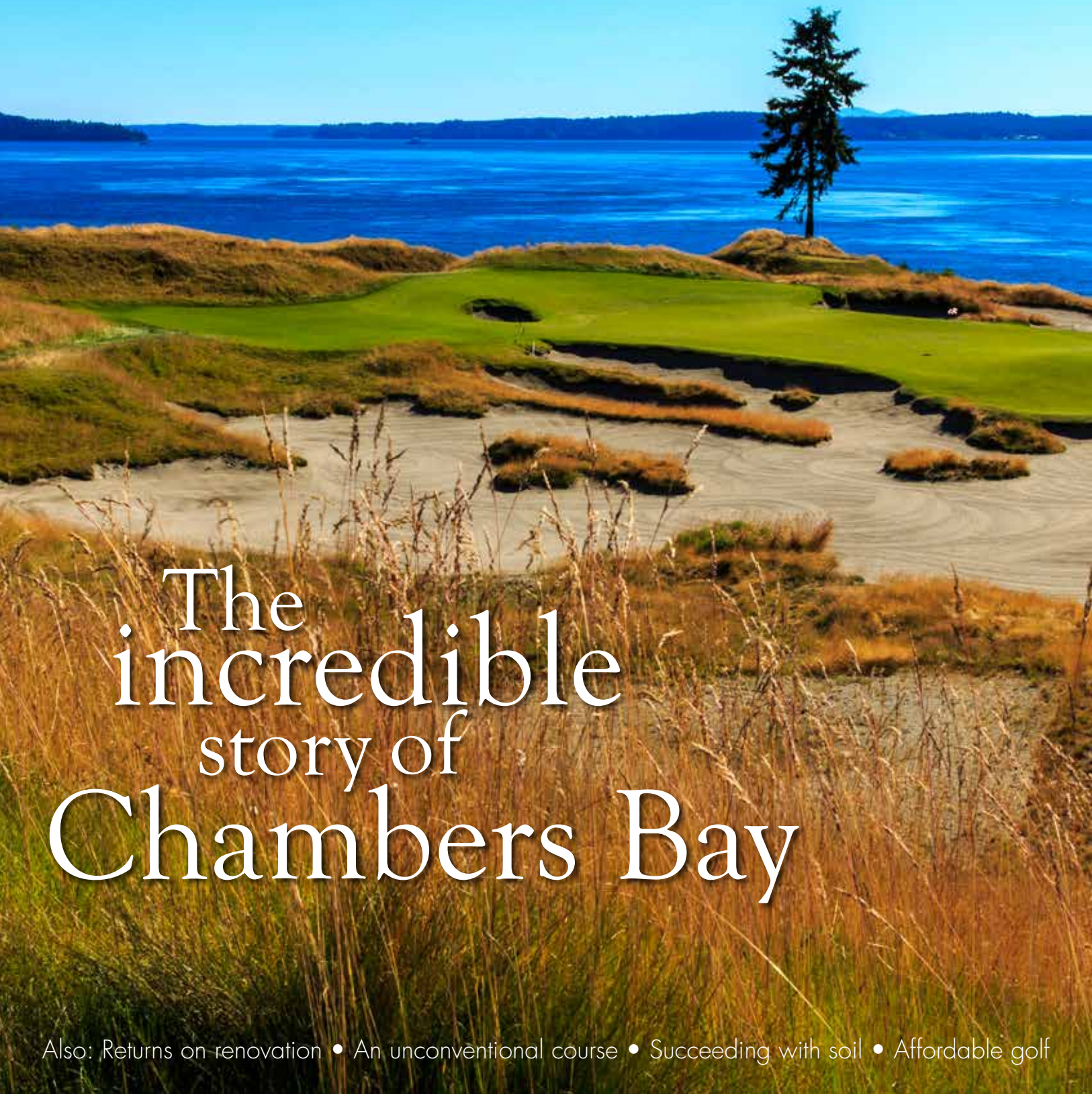


Issue 23 | Summer 2015

BY DESIGN



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The incredible story of Chambers Bay

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One of the great joys of being a golf course architect is the opportunity to turn land that is offering little to the community into something that is living, breathing and having a positive impact on people's lives.

In this issue of *By Design*, award-winning golf writer Brad Klein tells us the story of the Chambers Bay, and how Robert Trent Jones, Jr. and Bruce Charlton, ASGCA Past Presidents, and their design team have transformed an abandoned sand and gravel quarry into a public golf course that is fit and ready to host a major championship.

When the competitors for the 2015 U.S. Open tee off on June 18, I for one will be fascinated to see how they cope with a golf course that demands strategic thought and imaginative execution of golf shots.

But whoever wins the championship, perhaps the greatest success of Chambers Bay is what it offers to the people of Pierce County in Washington. A beautiful coastal setting where the public can experience wonderful golf, or simply take a walk through the trails—and enjoy what nature has to offer.

Elsewhere in this issue, we find out about The River Club, an innovative design that should encourage growth in participation, discover the results of a study into the financial return on renovation work, and much more.

Enjoy the read!



Steve Smyers
President
American Society of Golf Course Architects

BY DESIGN

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CONTENTS

Digest 5

A round-up of some of the latest news from the golf industry, including development news from Cuba, a number of new renovation projects and honours for Jack Nicklaus, ASGCA Fellow, and Doug Carrick, ASGCA Past President.

Chambers Bay 8

Brad Klein shares the incredible story of Chambers Bay's transformation from a sand and gravel quarry to a U.S. Open venue.

Return on renovations 16

Do renovation projects pay? We learn from the Dallas-Fort Worth area.

A flexible facility 20

An insight into an innovative facility designed by Billy Fuller, ASGCA.

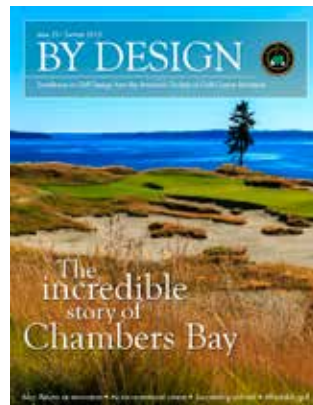
Succeeding with soil 22

How new applications can help get the most from depleted soil.

Affordable golf 24

Richard Mandell, ASGCA Associate, on the importance of expert advice.

COVER



The 15th hole at Chambers Bay, Washington Place, Seattle. Photograph courtesy of USGA/John Mummert

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Renovation

Major work begins at Harbour Town

The Harbour Town course at the Sea Pines Resort in South Carolina has closed for renovation work.

The project will see fairways regrassed with Celebration bermudagrass, while the greens will be resprigged with Tif-Eagle.

A further project at the resort will get underway in October 2015 and will see the redesign of the Ocean Course.

Architect Scot Sherman, ASGCA is leading

the redesign and will oversee the project as part of the Love Golf Design team.

“Davis, Mark and I plan to build a course that players will fall in love with and want to play over and over again,” said Sherman. “To accomplish this, we will rethink and rebuild everything—even some slight re-routing of the existing layout. We’ll build features and create a strategy that will lead players around the golf course and help them have fun.”



“Our goal is to build a golf course that players will fall in love with,” says Scot Sherman, ASGCA

Renovation

Eckenrode completes renovation work at Quail Lodge

The back nine holes at Quail Lodge & Golf Club in Carmel, California have recently reopened for play following renovation work by the design firm of Todd Eckenrode, ASGCA.

The newly designed course features fully renovated tees, bunkers, fairway features, chipping areas and lakes. Many bunkers have been placed in new strategic locations while the introduction of short-cut chipping areas around every green is expected to enhance the short game by increasing playability and variety of play. “I am excited to present a much more interesting,



strategic and varied golf experience for the members, and can’t wait to complete the other side,” said Eckenrode.

Work is now well underway on the front nine holes of the course.

Industry leaders gather for Donald Ross Roundtable

ASGCA recently gathered industry leaders for the first Donald Ross Roundtable to discuss major issues facing the golf industry. Like many golf discussions, water and the environment were the main topics.

“Water is a significant issue the game is addressing,” said ASGCA Past President Lee Schmidt, who led the discussion. “With the ideas and technologies provided by architects, manufacturers, irrigation designers and others, the golf industry is providing solutions that are benefitting golfers, golf course operators and entire communities.” Schmidt noted that golf courses that are well-designed, built and maintained are increasingly part of the solution to communities grappling with water issues.

Roundtable members – including representatives from Profile Products, Rain Bird and Toro – were unified in their belief that architects and other industry professionals can help clubs manage their budgets wisely, and address today’s challenges and opportunities.

Nicklaus awarded Congressional Gold Medal

Jack Nicklaus, ASGCA Fellow, has been awarded the Congressional Gold Medal—the highest civilian honor Congress can bestow. The recognition is the most recent and one of the highest for the golfing legend. Nicklaus joins Arnold Palmer, ASGCA Fellow, as the only other golfer, and just one of seven athletes, to earn the medal.

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Renovation

Newman plans course update to attract wider array of golfers

Lohmann Golf Designs has been brought in to lead a renovation of the Newman Golf Course in Peoria, Illinois.

Much of the initial work will focus on the course's greens, which have been a cause of concern in recent times, particularly during the hot summer months.

Internal drainage capacity will be improved and surfaces will be expanded to provide more space for varied pinning and to help spread wear.

Many holes also suffer from major drainage issues, and a new mainline drainage system will be installed. Laterals will also be introduced to the adjacent fairways to capture water.



Visualisation of the proposed 12th hole

New markets

New golf resort planned for Cuba

A new golf course and resort could soon be coming to Cuba's northern coast.

Reuters reports that the Cuban Government and a Chinese company named Beijing Enterprise Group have signed a letter of intent to build a new golf development on the island.

The planned site lies between the resort town of Varadero and the country's capital, Havana.

A general ban on travel to Cuba is still in place for US citizens, with only Cuban-Americans allowed to travel to the country. However, legislation was recently introduced in the US Congress to lift this ban.



Todd Quitno, ASGCA, senior project architect, Lohmann Golf Designs

"We feel there is a great opportunity to make improvements at Newman that will attract a wider array of golfers, including more highly-skilled players. We believe it starts with rectifying the issue with the greens, the number one asset on any golf course, then turning our attention to improvements on the tees, bunkers and drainage with the hopes of restoring the facility to local championship glory. The hope is that Newman can ultimately cater to every golfer type, from beginner to scratch, while preserving the traditional character that makes it a hallmark facility for valued, long-standing patrons like the city's Progressive League."



The planned resort could pave the way for a number of similar developments in Cuba. The country's government reportedly indicated it wants at least 12 golf resorts on the island in the future.

Cuba is currently home to only one 18-hole course, at the Varadero Club on the Hicacos Peninsula. Les Furber, ASGCA, redesigned the course at the Varadero Club in 1998.

ASGCA Past President enters Ontario Golf Hall of Fame

The Golf Association of Ontario (Canada) inducted Doug Carrick into the Ontario Golf Hall of Fame in the builder category during a ceremony on May 6.

"I was traveling in Austria when I received a call from GAO Executive Director Steve Carroll telling me I was to be inducted and I can tell you I was completely stunned," said Carrick, who is joined in the Class of 2015 by Bob Breen, Edie Creed and Bill Kerr. Garry McKay received the Lorne Rubenstein Media Award.

Golfers call for shorter rounds

More than 60% of golfers have said that they would enjoy golf more if they played in less time, according to the results of a recent pace of play survey by The R&A.

Around a quarter of respondents said the round time would need to improve by between 21 minutes and 39 minutes per round to increase their frequency of play.

The survey found the two biggest factors preventing people from playing golf are work commitments (34%) and family commitments (29%).

The R&A will be discussing its findings in more depth at a forum later this year.

Visit www.randa.org/en/RandA/Downloads-and-Publications.aspx to read the R&A's full report.

To see how ASGCA members address pace of play, see the flyer at www.asgca.org/free-publications

From Oblivion to Open

Chambers Bay | Bradley S. Klein

On a site that just 10 years ago was still the remnants of an old sand and gravel quarry, the world's elite golfers are now gathering to compete for the 2015 U.S. Open. Brad Klein considers the incredible story of Chambers Bay



Every golf course project comes with a remit—a program for development, against which the success or failure of the resulting design will be measured. At Chambers Bay in the Tacoma suburb of University Place, Washington, the expectation placed in the hands of golf course architect Robert Trent Jones Jr., ASGCA Past President, and his partner and lead project architect, Bruce Charlton,

ASGCA Past President, was far more ambitious than normal.

The visionary for the municipal undertaking, Pierce County executive John Ladenburg, was simple, clear and direct in his mandate to the design team: take an abandoned, 930-acre gravel quarry and convert its post-industrial detritus into a stirring links-style golf course and public park that would be an engine for regional

tourism development and would hold the Pacific Northwest's first-ever U.S. Open. To industry observers, that mandate 15 years ago crossed the line of ambition and entered the realm of delusion. And yet here we are, on the verge of that U.S. Open and the golf course is doing all it was supposed to do—and more.

Not without some major hurdles. Converting the country's single

largest source of sand and gravel into a championship links was a monumental task of political will, inventive engineering, and meticulous planning. The process started in 1992, when the county's wastewater treatment district purchased the site for \$43 million from mining firm Lone Star Northwest with plans for establishing a water treatment facility there and reclaiming some of the unused portion for public use.

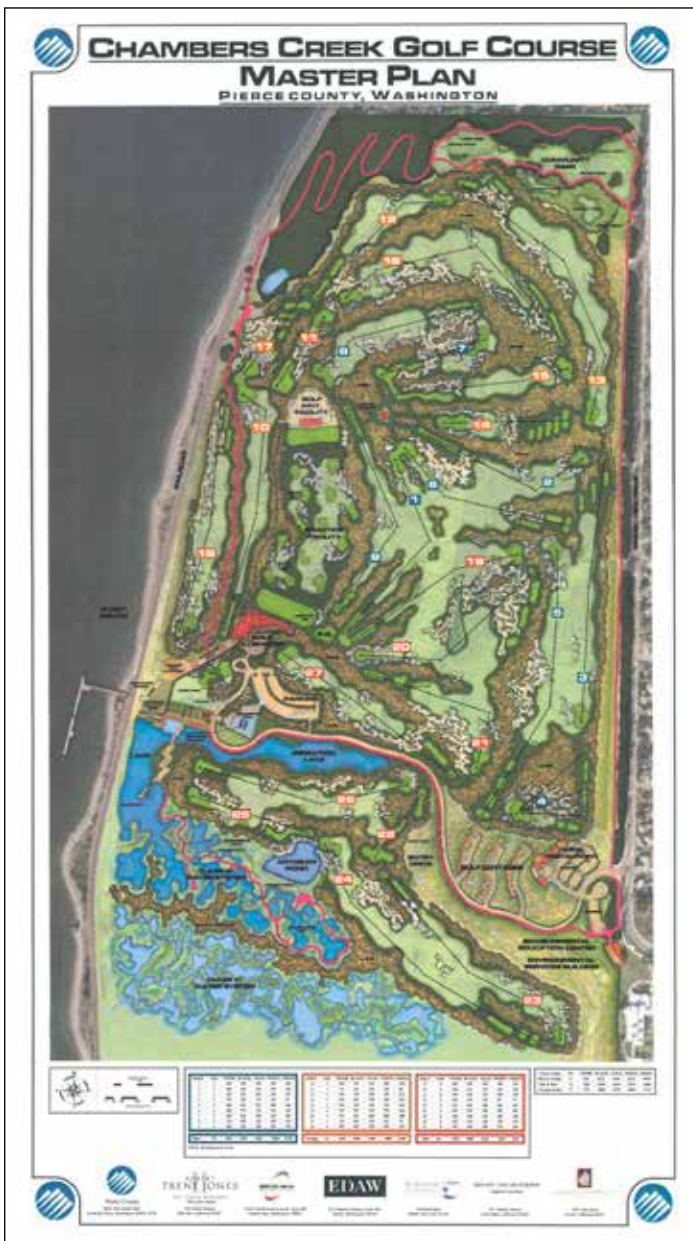
The setting for what was initially termed Chambers Creek was ideal for recreation—along a two-mile stretch of lower Puget Sound, with clear views of the Olympic Range and

with pedestrian access from a near highway that brought folks from the country's 15th largest metropolitan area (Seattle-Tacoma) to the very rim of the cored-out parcel. In what would turn out to be a crucial decision, Pierce County officials retained the permit to mine the site. They didn't know it at the time, but without that residual right they could never have built the course.

Ladenburg, an elected official, was inspired by the fact that municipally owned and operated Bethpage State Park-Black Course in Farmingdale, New York had landed the 2002 U.S. Open. He knew the U.S. Golf

Association had been searching for a suitable Pacific Northwest site for its premier national championship and began to formulate a plan.

Critics, including many county residents, derided what came to be known as 'Ladenburg's Folly.' But he was convinced and stuck his neck out by pushing for the project, often having to work hard to achieve favorable 4-3 votes from the County Council on permitting, planning and issuance of special revenue bonds to the tune of \$22.8 million, payable over 30 years. He knew the crucial difference in quality, he says, between getting something 99-percent right

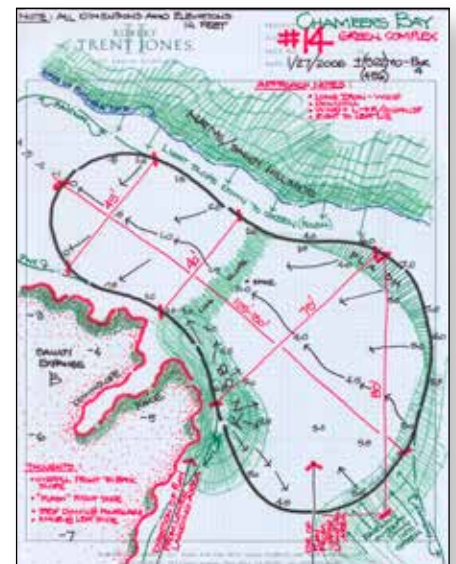
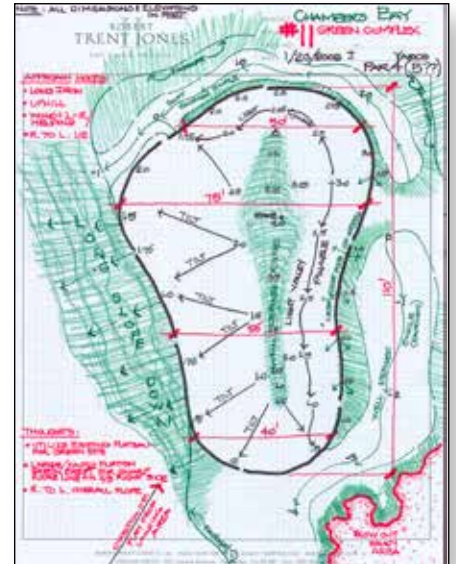


The RTJII team presented Pierce County with two options for the course: a 27-hole design as requested, plus a more expansive 18-hole option

That sealed the deal, and the Jones team was off and running in what Charlton calls “the biggest sand box any of us had ever gotten to work on.” What followed was a frenetic six months of detailed drawings, site visits, revisions, refinement and bid documents. Charlton, who has been at Jones’ side for 34 years, acknowledges that “municipal jobs are generally demanding in terms of paperwork, but that this one was in the top two or three we’ve ever



Only a handful of the holes first shown on the 18-hole alternative master plan survived the arduous review process. The clubhouse was moved to the southeast, the range moved out of a central core setting into a low, open area to the east, and room had to be found for a continuous three-mile walking trail that would weave through the golf course without interfering with play—or for that matter, be visible to golfers. Holding ponds, initially intended for the course, were dispensed with thanks to improved wastewater treatment technologies developed for



Original green sketches for Chambers Bay

the plant on the far south end of the entire property.

Ladenburg also made a crucial determination—to go with links-style fescue grasses that would emulate a traditional seaside layout, and with that, to abandon any paved cart paths and to rely upon a walking-only policy for play rather than one that catered to modern preferences for riders. Carts would have beaten fescue into submission. A walking policy, with the occasional concession to medically-certified golfers incapable of walking, would protect the notoriously traffic-intolerant grasses needed for a true links layout. KemperSports, the management firm that had been overseeing the all-fescue Bandon Dunes Resort in Oregon since its inception in the late-1990s, knew that the virtual banning of carts would have serious financial implications for the Chambers Bay operation. But Ladenburg was insistent, and instead of being a liability, the emphasis upon walking became a defining element of the property.

An abundance of sand on site meant that there was plenty of available material for a fertile growing medium. But first the land had to

be rough shaped into proper form. That required an army of bulldozers and pan scrapers—25 heavy pieces of machinery, all of it part of a construction contract awarded to Heritage Links, with Jones' own shapers, Ed Tanno and Doug Ingram, leading on the all-important final massage work.

At times, the yearlong construction process looked like a scene from a post-apocalyptic sci-fi movie. The grading operation required a kind of 'melting down' of the entire northern rim by 10-25 feet, with the material then screened in massive sorting bins that were themselves holdovers from the old gravel site. The sandy material was tested for percolation rates and moisture retention, then used as capping for the areas to be grassed. Jones, watching as the elevation levels of the site evened out somewhat, likened it to "an acceleration of geological time."

Rarely has a North American construction site made quicker progress from ugly to beautiful. An entire ridge was pushed through to make way for the 10th hole. Today, it looks like the hole was fitted into a natural box canyon, with just an

opening at the far end to give a glimpse of Puget Sound behind the green.

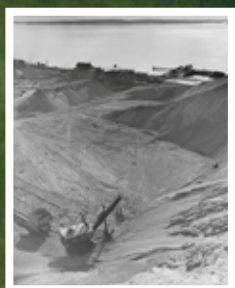
In an effort to give the resulting mounds and knobs some element of rough, scruffy nature, track hoes plodded up and down them to imprint their tracks on the dirt; this had the double effect of creating a corduroy effect that would hold emergent turfgrass down as it germinated in the wind. The furrowing also made it look as if age-old erosion had already taken hold. Once the fescue took hold and started waving in the breeze, the entire site took on the feel of a classic links, one that had been there for decades.

Oh, those finicky fescues. Notoriously hard to establish and sustain, particularly in a cool-season, rainy environment. Interestingly, metro Tacoma, with 40 inches of precipitation a year, is closer to St Andrews (27 inches) than to Bandon, Oregon (59 inches) in the wet department. Specifications were precise and based upon test plots cultivated 20 miles to the east in Puyallup, Washington. Greens, fairways, tees and approaches were seeded to a mix of colonial bentgrass (6 percent), a three-way mix of

Project Timeline

1992

Pierce County acquires a 930-acre gravel and sand pit along Puget Sound



2003

Mining ends but county retains mining permit



2002

Pierce County executive John Ladenburg initiates plans for a golf course and park

2004

The firm of Robert Trent Jones II wins the golf course design contract

2005

Pierce County Council authorizes construction bonds for golf course



2005

Construction begins

2006

Mike Davis, the senior director, competitions, moves to Chambers Bay

/// Bruce Charlton calls Chambers Bay 'the biggest sand box any of us had ever gotten to work on

chewings fescues (69 percent) and creeping red fescue (25 percent). Tallgrass roughs and sandy waste areas were planted with hard fescue (40 percent), sheep fescue (40 percent) and creeping red fescue (20 percent).

Fescues can be wonderful when established. Darin Bevard, director of championship agronomy for the USGA and the Green Section staffer responsible for coordinating maintenance standards for the U.S. Open, notes that "fescues require far less input of water and fertilizers than cool-season grasses like ryegrass or bentgrass. They also require less mowing."

Of course fescues are noticeably susceptible to damage from traffic.

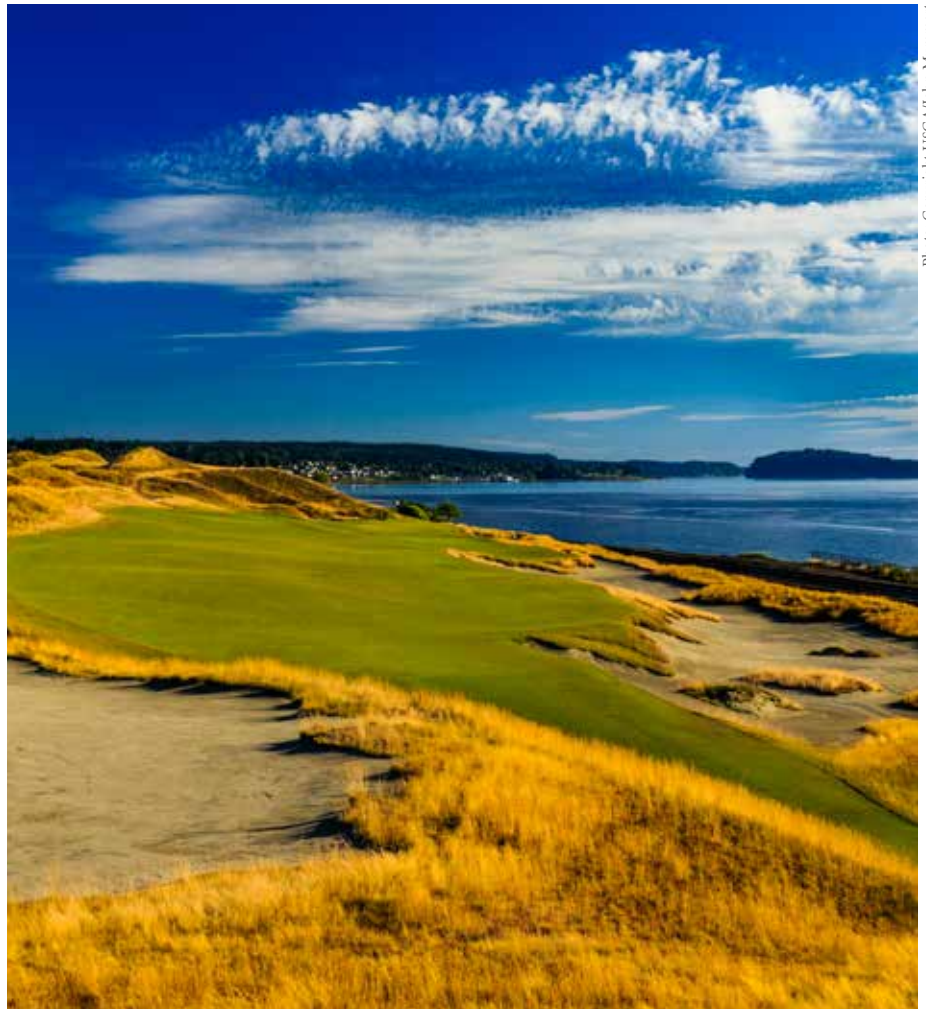
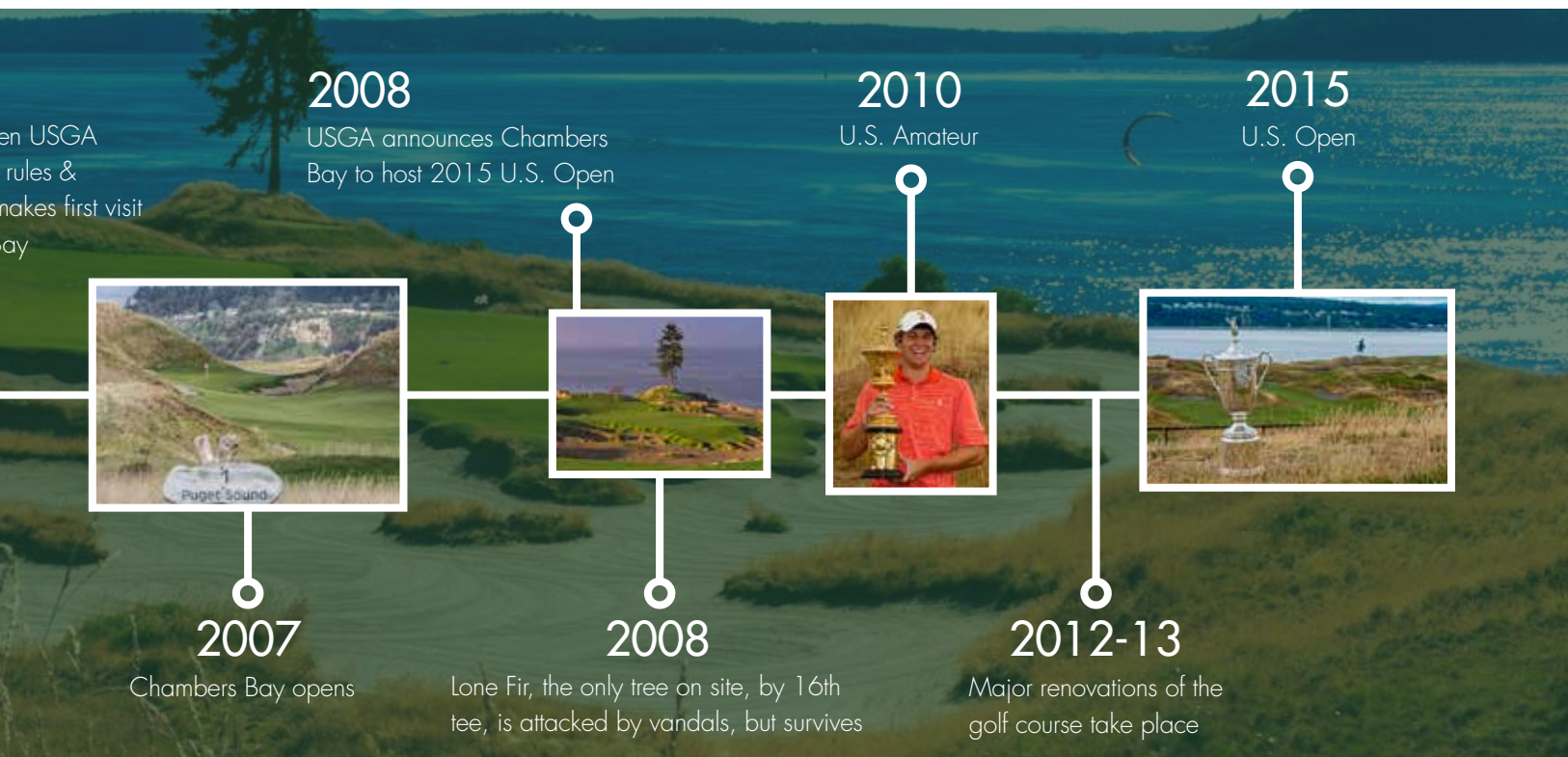


Photo: Copyright USGA/John Mummert



At Chambers Bay that didn't come from mechanical damage so much as from the wear and tear under foot from 35,000+ plus rounds, much of it in winter time when locals took advantage of favorable rates. The wear and tear was compounded by caddies—an additional two-to-four pairs of footsteps per foursome for the 10 percent of rounds where players opted for bag toters. There was the additional burden of approach and exit patterns around some greens that tended on occasion to funnel traffic through narrow passages—whether in defile-like form, through the 10th hole, or on some greens where the only path to the next tee was made narrow by steep falloffs to each side. Between traffic and weather, the result was some discernible decline in turf conditions heading into the spring.

Soon after opening, it was clear that high-impact areas would need some reworking. A few areas had to be massaged and green exits expanded. But the major course edits would await the 2010 U.S. Amateur, when USGA officials would see how the course played under championship conditions—a prelude to the U.S. Open five years later.

August isn't June, and parched conditions of the U.S. Amateur (August) are far more severe in firmness and speed than the likely conditions of a U.S. Open (June). But it was clear from play on Chambers Bay during the 2010 Amateur that a few slopes had to be reworked. On a golf course that played extreme in its nearly dormant, dry, pinball wizard speed conditions, approach shots onto the first green were running off the left side and tumbling way away. And some shots hit to the uphill, seventh green (or back onto it from behind) were literally running down off the front and winding 100-150 yards



away. More areas for spectator traffic would also be needed on course.

Davis, with an eye towards the U.S. Open, was intent upon creating an almost unparalleled degree of set up flexibility.

New teeing grounds on the first and 18th holes would allow these holes, running side-by-side in opposite directions, to be set up variously as a par-4 or as a par-5 on alternate days. The downhill par-3 15th hole got teeing grounds that enabled it to play from 123-to-246 yards. A new way-back tee on the downhill par-4 14th hole would

enable it to play 546 yards—and from the highest point on the golf course looking out onto Puget Sound. And if the wind, prevailing out of the southwest, should prove too much for the 224-yard, par-3 ninth hole on a tee shot that dropped 100-feet to the green, Davis wanted the flexibility to play from an alternate platform aligned 90-degrees to the east that would be both more reasonable for play and more accessible to spectators.

Most of this work, undertaken in 2012-13, was the kind of tweaking that is standard in the run-up to any U.S. Open—though the degree of set-up flexibility it facilitated was more than usual. Along the way, USGA officials, working with KemperSports and Pierce County officials, also wanted to guarantee better turf quality, and that required

“ A crucial determination was to go with links-style fescue grasses that would emulate a traditional seaside layout



Photo: Copyright USGA/John Mummert

Chambers Bay by the numbers

Opened: 2007

Yardage: 7,469—7,827

Par: 70

Golf course envelope: 250 acres

Elevation change on site: 207 feet (back tee on 14th hole is 227 ft. elev./waste area right of 16th/17th is 20 ft. elev.)

Distance walked from first tee to 18th green: 7.5 miles

Greens: 8,000 square feet avg.

Fairways: 40 acres

Tees: 8.5 acres

Fine mowed turf area: 60 acres (inc. tees, fairways, surrounds)

Roughs and sandy waste areas: 70 acres

Irrigation heads: 1,700

Rounds: 32-38,000 annually

Maintenance budget: \$1.7 million annually

Green fee: \$135-\$299

rebuilding two greens (the 10th and 13th) that had been particularly problematic all along. The result, as became evident coming out of the winter of 2015, has been much improved turf conditions and playability for everyday patrons of Chambers Bay as well as the likelihood of ideal conditions during the U.S. Open.

What viewers will see during the week of June 15-21 won't be as austere as what players confronted during the 2010 U.S. Amateur. But it will be a golf course that in scale, slope, run out and flexibility will be beyond any other U.S. championship venue and more like an Open Championship.

Back in 2005, when the Jones group made its bid presentation for the golf course, team members came into the council room with badges ready made for the occasion that were handed out to the group. It showed the county logo, the name of the project (Chambers Creek, as it was called at first), and the words 2030 U.S. Open. A decade later, looking back, Ladenburg likes to say with a smile that they only got three things wrong with the gesture. "It was the wrong name, the wrong logo, and the wrong year for the U.S. Open."

True enough. But they did get one thing right. A big one. The golf course. ●



Join ASGCA and Robert Trent Jones II Golf Course Architects for a Twitter chat Thursday, June 11 at 1 p.m. EDT. Robert Trent Jones, Jr., and Bruce Charlton will answer questions about Chambers Bay just one week before the 2015 U.S. Open tees off. Post questions ahead of time and follow along at #ASGCAUSOpen, and follow @ASGCA and @RTJ2GolfDesign.

The return on renovations

Does renovation work deliver a return on investment?
Rebecca Gibson finds out with the results of a recent survey

All golf courses, and particularly those that see large numbers of rounds played each year, will have to cope with some degree of deterioration over time. Areas that tend to show signs of wear and tear first are: those that receive the most foot traffic, like tees, greens, and bunkers; the mechanics of the course, such as irrigation and drainage systems, and; like any public

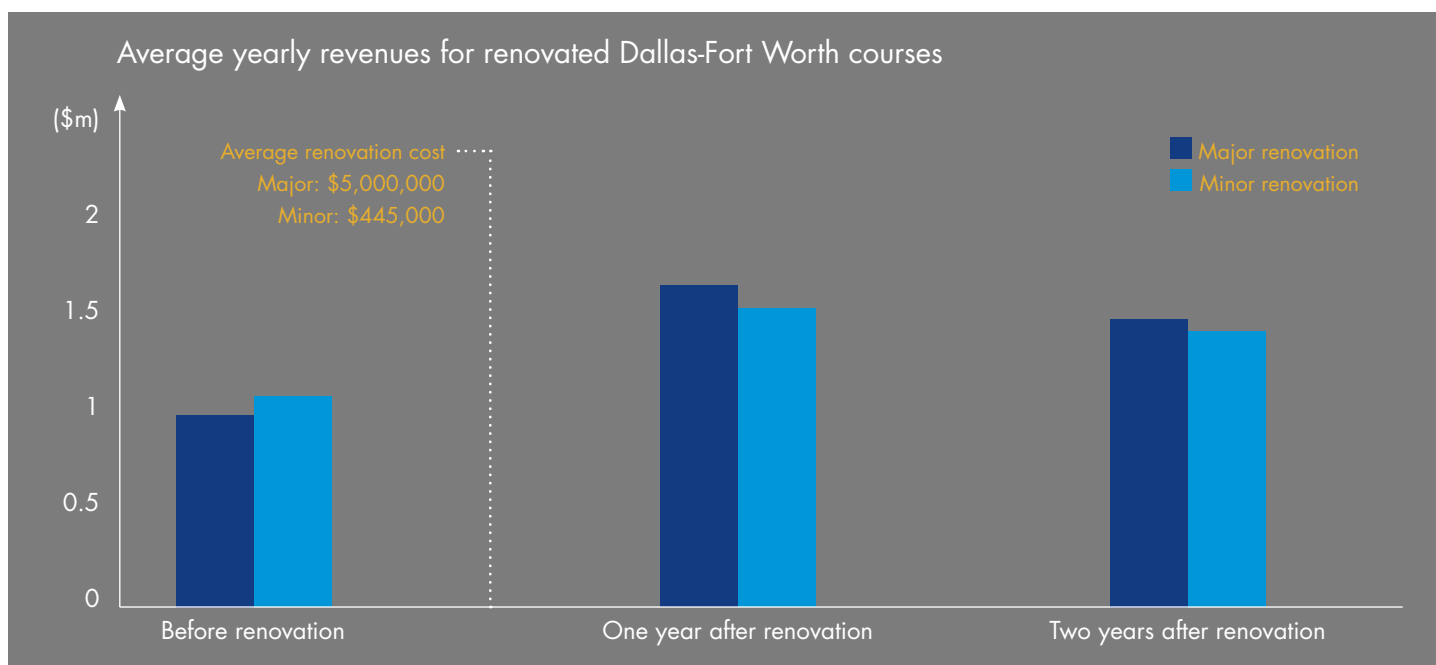
building, the clubhouse.

All of the elements of a golf course have different lifecycles, ranging from one-to-three years for mulch to up to 30 years for greens (for more details, download the ASGCA Life Cycle Chart at www.ASGCA.org/free-publications).

At a presentation at the Golf Industry Show (GIS) in Texas, US, in February 2015, Jeffrey Brauer, ASGCA Past President and owner of golf

design firm Golfscapes, highlighted that those courses that were built during the boom of the 1980s, or earlier, are now generally beyond the point at which their elements can reasonably be expected to last.

But would the necessary renovation work deliver a return on investment? Referencing an independent 2014 report by the National Golf Foundation (NGF) and golf course





Returns on renovation can last into the long term. Indian Creek GC in Carrollton, Texas was renovated by Jeff Brauer in 2007, and has maintained the resulting increase in revenues

consultants Sirius Golf Advisors, Brauer explained to GIS attendees that renovation work does appear to deliver positive financial results.

The report covered financial results for many of the 19 public golf courses that have been renovated in the Dallas-Fort Worth (D-FW) area in Texas since 2000, and Brauer also added details for a renovation handled by his firm. Eight of the projects could be considered 'major' renovations, where an average of almost \$5 million had been invested to fully renovate and rebrand their facilities. For these courses, annual revenues were boosted from an average of \$939,000 per year before renovation to \$1,600,125 in the first year of reopening, then \$1,485,709 the following year.

Brauer's presentation also summarised financial data for four courses where 'minor' work had been done—an average of \$445,000 for projects such as turf, green and tee improvements. At these courses, average annual revenue increased from \$1,168,000 before renovation to \$1,517,500 in the first year of reopening and \$1,378,250 by the second year.

Figures indicated that return on investment (ROI) for both major

and minor renovations was highest the first year after the courses reopened, due to the initial 'buzz' surrounding the new developments. The results dipped into a more sustainable pattern in the second year, but the ROI figures remained overwhelmingly positive.

"The fact that the nine extensively renovated courses and the four with minor enhancements improved average revenues by 63.7% and 23.3% respectively after two years shows that well planned renovations can certainly boost the finances of golf courses," said Brauer. "While the survey only covered the first two years after the reopening, NGF confirmed that even the courses that were renovated ten years ago have generally maintained their new revenue levels."

So this evidence suggests that renovating a municipal golf course brings financial success. But choosing the right time to renovate a course is rarely easy, not least because of the disruption caused while the work is being done.

According to Brauer, owners should look for tell-tale signs: clubs may be regularly losing members, they may have been forced to lower prices to attract more players, or—nowadays—

they notice poor reviews and ratings on consumer websites. "A noticeable drop in the number of visitors suggests that the course no longer meets their expectations, whether this is due to worn out greens, damaged bunkers, or simply the fact that a nearby course offers newer and more exciting holes," he explained. "Owners should also consider renovating their courses if their staff are spending an increased amount of time fixing problems, rather than carrying out simple everyday maintenance tasks."

To ensure revenue growth, owners need to identify the enhancements that will help to boost the appeal of the course and create real value for their customers, while lowering future maintenance and operational costs.

"Owners should invest in the facilities that customers will want to pay for, rather than overspending on superficial or less important upgrades," explained Brauer. "If members have complained about the condition of the greens and the bunkers, these areas should be prioritized during the renovation."

The NGF and Sirius Golf Advisors report strongly suggests that facilities that have undergone a total makeover to improve their image also need

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Course	Renovation cost	Revenue per year (Before)	Revenue per year (After Year 1)	Revenue per year (After Year 2)	Return
Major 1	\$9,999,000	\$435,000	\$1,163,000	\$1,041,950	6.1%
Major 2	\$8,800,000	\$1,265,000	\$2,153,000	\$1,986,000	8.2%
Major 3	\$8,200,000	\$1,395,000	\$2,200,000	\$2,112,000	8.7%
Major 4	\$4,000,000	\$1,824,000	\$2,200,000	\$2,025,000	5.0%
Major 5	\$4,600,000	\$773,000	\$882,000	\$846,720	1.6%
Major 6	\$3,700,000	\$385,000	\$553,000	\$569,000	5.0%
Major 7	\$3,400,000	\$787,000	\$1,000,000	\$950,000	4.8%
Major 8	\$2,900,000	\$1,250,000	\$1,800,000	\$1,640,000	13.4%
Major 9	\$1,940,000	\$1,080,000	\$1,850,000	\$1,665,000	30.2%
Minor 1	\$950,000	\$1,031,000	\$1,147,000	\$874,000	-16.5%
Minor 2	\$350,000	\$897,000	\$1,659,000	\$1,657,000	217.1%
Minor 3	\$300,000	\$847,000	\$1,109,000	\$1,025,000	59.3%
Minor 4	\$180,000	\$1,894,000	\$2,014,000	\$1,957,000	35.0%

Source: NGF, Sirius Golf Advisors and Jeff Brauer, ASGCA Past President

to rename, reposition and rebrand the facility in the market place. “Rebranding makes it more viable to raise prices,” says Brauer. “Golfers expect to pay more for a better product, and if achieved it accelerates the return on investment.”

Re-opening a newly renovated course also provides the ideal opportunity for owners to overhaul and improve all aspects of the

“While the bigger D-FW renovation projects drove a greater rise in total revenue, the NGF and Sirius Golf Advisors’ report showed the four courses that underwent minor renovations also successfully increased revenues, by an average of \$210,250. And while it could be tempting to completely redesign the course, it could be equally lucrative to simply replace a drainage system or the turf

chance to play different courses in the interim, so the owners need to work hard to ensure they return,” said Brauer.

It starts with establishing a clear business plan outlining financial possibilities and targets for repairing, replacing and redesign that will help to generate a positive ROI and increase revenue. “Every proposed renovation needs its own specific economic analysis and, since 2006, most golf course renovations and master plans have been preceded by an overall business plan,” said Brauer. But the experience and expertise of a golf course architect is critical to help arrive at the right decision.

According to Brauer, the consistency of increased positive rounds, revenues and ROI results in the NGF and Sirius Golf Advisors report are very encouraging for anyone considering a major renovation, particularly in large and vibrant areas where the public golf market is similar to that of DF-W. “Course owners will agree that while renovations can be challenging, they are often a less risky strategy than doing nothing at all.” ●

business. Brauer explains: “A new design and improved conditions will certainly attract play, but owners should also update and improve operational processes, find new ways to manage maintenance costs, and restructure or retrain teams to enhance customer service. Quickly falling back into old habits can negate other improvements.”

“Renaming after minor or infrastructure renovations is less common, but in any renovation, it is essential that owners market and advertise when the course reopens to showcase new improvements in conditions and service.”

on the greens. Sometimes, it pays to fix just what needs fixing on an otherwise solid course.”

Brauer has found that you must do nearly everything right and spend reasonably to achieve best results. He notes the report showed that projects spending the least on clubhouse improvements (under \$200,000) provided the highest ROI.” It also means minimizing lost revenues by properly timing your renovation to meet grassing dates. Or paying for more sod to shorten grow-in time. “On average, the major D-FW renovations took seven months to complete, giving your customers a

For more information on how an ASGCA member can assist in your renovation project, download ‘The Golf Course Remodeling Process: Questions & Answers’ from www.asgca.org/free-publications

“while renovations can be challenging, they are often a less risky strategy than doing nothing at all

Unconventional wisdom

A new 'flexible' course and practice facility designed by Billy Fuller, ASGCA is helping to grow the game of golf in Clarksville, Tennessee

Defying convention can sometimes be a wise choice. At The River Club in Clarksville, Tennessee, architect Billy Fuller, ASGCA recommended a move away from the 18-hole norm in order to help his client achieve the objective of building a facility that could help grow the game in the local area.

The 145-acre site for the development is located between the Route 374 Highway and the Red River, which joins with the larger Cumberland River in downtown Clarksville.

Fuller was initially brought in by the club's co-owner Greg Guinn to draw up plans for an 18-hole routing and small practice facility. However, after consideration, Guinn was convinced a larger, more expansive practice facility would help to grow the game of golf in the North Tennessee area.

"I suggested we design nine holes with a combination of double greens and/or large greens to offer two pin settings for each green," Fuller explains. "One for the front nine and one for the back nine, along with double tees for each hole."

After getting the go-ahead from Guinn, Fuller set about creating a

design for both the flexible nine-hole course and a practice facility at the northern end of the site.

Fuller says that the course's design is "all about Golden Era look and feel," with much emphasis on the ground game in green approaches.

"American golfers have become entrenched in the air game, yet the game was born as a ground game in Scotland," says Fuller. "My hope is players will enjoy the ground option at The River Club."

The architect paid special attention to the topographical elements of the site when drawing up his design, and said that the drainage story at The River Club is a unique one.

"The Red River rises several feet over the property, and most of the course is flood plain," Fuller explains. "I designed large, wide swales between parallel holes in lieu of lakes. These help to evacuate water off greens, tees and fairways as quickly as possible and help resume play after large storm events. These swales are mowed at rough height and serve as secondary hazards."

The swales are engineered with a large pipe underneath to remove water and restore good playing conditions as rapidly as possible.



Since flooding is an issue at the site, Fuller and Guinn agreed to limit the number of sand bunkers to just 14, and include grass hollows and strategic angled mounding placements in some instances. These may hide a portion of a player's target on a misplaced tee shot.

The final design includes nine 'flexible' holes, including six with double greens that allow for a second hole location. The design allows for as many as six tees per hole, and players can play in three, six and nine hole loops. If a full 18 holes are played, the course can play from as short as 3,111 yards up to a maximum of 7,150 yards. There are six sets of tees to accommodate every level player.

This nine hole configuration freed up space for an extensive practice facility, which covers around 25 acres, is lighted, and includes more than 100,000 sq ft of tee space, two short game chipping and bunker complexes, and two putting greens.

The course opened for play in the Fall of 2014, and the club is selling annual membership at a competitive monthly price to 200 players. These players get priority tee times up until 1pm each day, after which all play is



In order to make room for an expansive practice facility (as seen at the top of the routing map image on the left), architect and owner decided upon a nine-hole design, but utilised both double and alternate greens, as well as a wide range of teeing areas, in order to provide golfers with a great variety in the way they can play the course



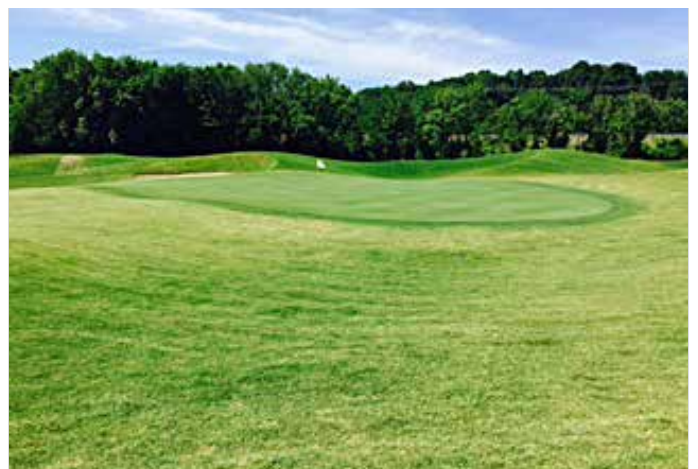
public. The public also has access to any tee times before 1pm that have not been reserved 24 hours in advance.

Members have unlimited access to practice facilities and balls, while a practice membership is also available that allows players to hit unlimited balls and then pay a green fee to play the course.

Fuller believes that concepts such as the one at The River Club could act as a template for other clubs. "If a club with an existing 18-hole course was looking to sell off land to real estate developers, what we've done at The River Club is a good example of how to create a

great golfing experience in a limited area," Fuller concludes. "Not only can clubs potentially benefit from a model such as this, but golfers can also enjoy a flexible course that meets their play and practice needs." ●

To find out more about Billy Fuller's projects, visit: www.billyfuller.com



The site (seen before development, left) for The River Club occupies 145 acres in Clarksville, Tennessee

Uncover the secret to battling depleted soils

Innovative new products can help golf course architects and superintendents bring depleted soils back to life

Productive soils are teeming with beneficial bacteria, microorganisms, fungi, and living organisms like earthworms. These complex components are all vital to maintaining a healthy, sustainable soil.

To support living organisms in soils, there must be a balance of air and water pores so these organisms can drink and breathe, but there also must be food, supplied from decomposed organic compounds, that organisms can feed on. Thriving organisms in productive soil are responsible for turning new organic compounds back into decomposed organics that plants and microorganisms can eat.

On construction sites, there is rarely living, productive soil available for re-use on the site. Soils that have been disturbed, moved, and stockpiled quickly become 'depleted', void of organic matter and living organisms that are vital to sustaining plant life and maintaining the cycle of organic decomposition. There are very few options for architects, builders, and developers when it comes to selection of soil on these sites.

Designers are often left to work with local sands, rocky terrain, and disturbed depleted soils on a

regular basis, and are expected to grow championship-quality grasses, regardless of the site conditions.

Typical practices of adding fertilizers and biostimulants on depleted soils prior to planting vegetation are a good start to help plants grow and thrive, but a critical missing component is the organic and biological living organisms.

Profile Products has been an environmental solutions provider and a leader in the golf industry for years, manufacturing products ranging from Profile Porous Ceramics to improve root zone mixes on greens and tees, to fiber mulches for erosion control and vegetative establishment. The importance of soil modification led Profile to develop a growing line of Prescriptive Agronomic Formulations, a selection of products that can be added to a site to modify pH, jump start new vegetative growth, or provide critical biological nutrients to the soil.

Recognizing this deficiency of 'living' organisms in depleted soils, Profile Products recently introduced its newest innovation: ProGanics™ Biotic Soil Media. ProGanics is best described as a sprayable, soilless, horticulture growing media. The product is applied through a hydroseeding machine and can be mixed with fertilizers and seed.

ProGanics is comprised of renewable, thermally refined bark/wood fibers, seaweed extract, humic acid, biochar, and beneficial endomycorrhizae: all critical components of productive living soils.

"We are excited to introduce a breakthrough technology that is not only an environmentally-friendly product, but will regenerate depleted soils without using a product like peat, which is harvested from fragile wetlands and is becoming difficult to obtain," said Joe Betulius, vice president of marketing for Profile Products.

Soils on a construction site are difficult to improve, but ProGanics accelerates the development of depleted soils that have low organic matter, low nutrient levels, and limited biological activity—bringing these soils back to life. Builders and contractors often find themselves on sites where topsoil is simply not available, especially if a job site is remote and spreading topsoil becomes an expensive proposition. While ProGanics is not a direct replacement for quality topsoil, it is a worthwhile consideration on these more challenging sites, on which ProGanics can provide a growing medium that will help plants grow and survive.





High quality grass development can be accelerated on depleted soils, by applying growing media through a hydroseeding machine

The product has already been proven on surrounding developments around golf courses, including residential areas and the outer contours of courses. Often, on these sites, an application of Profile's Flexterra® ET-FGM or ProMatrix™ EFM will be applied on top of the ProGanics to stabilize the slope and provide an ideal matrix for the seed to germinate.

With a full line of product solutions for slope stabilization and vegetative establishment, Profile offers golf course designers a range of tools to tackle challenging sites. The company in recent years has had world-class success with sand dune stabilization at Trump International in Scotland; modifying desert sands in places like Qatar and the United Arab Emirates; and has offered root zone solutions for several golf course projects that have earned 'Renovation of the Year' designations.

"We are proud of the line of products that we offer, but we are constantly focusing on the need to test soils first, before any product recommendations are made," said Betulius. "We believe strongly that if we can fix the soil first, it becomes far easier to select vegetation and establish growth on a site. The key to all of that is a good growing environment for the plant." ●



On these challenging sites, ProGanics is applied to depleted soils and then covered with Flexterra FGM to stabilize slopes and maximize erosion control

Affordable Golf | Richard Mandell, ASGCA Associate

The first cut is the deepest

In the first of a two part article on cost reduction, Richard Mandell, ASGCA Associate, highlights the importance of consulting a qualified golf architect

As the golf industry slowly begins to rebound, it is important to recognize the bubble growth of the past few decades has harmed the segment of golf that should be the primary avenue to growth for the game. That segment is the small country golf course, whether private or public, that serves those who enjoy the game for its simple virtues of overcoming obstacles, enjoying the company of family and friends, a commune with nature that settles the soul, provides a semblance of exercise, and provides that high when a golf ball is struck purely.

That golf course model has been closing at a rapid pace as more expensive golf courses that failed to hit the mark their feasibility studies targeted in fatter times have reduced their fees. Now those 'country club for a day' facilities are in direct competition with the more established icons of the community that serve the everyday golfer.

These country courses consider upgrades on a shoestring budget, often with the last bit of capital available in a last-ditch effort toward survival. Time and again, the decision to go 'in-house' leads to the inevitable short-cuts that result in more money spent on fixing the short cut than if done correctly in the first place.

The first cost-cutting decision in the process is often to eliminate the golf course architect (and his/her fees). Inevitably that is always the move that

hurts the most. Most golf architects, though, are worth far more to the bottom line than their fees. This value comes not only in controlling costs, but also in creating more value per dollar.

A club seeking to cut costs without bringing in a professional clearly has corner-cutting in mind. This usually comes as a result of not knowing the myriad ways to accomplish specific tasks. An architect may introduce an alternative approach that may cost more, but it usually involves proper execution and materials resulting in better quality, or more value through an approach that may indeed cost a bit more in implementation. In other words, getting more bang for one's buck.

Yes, if you hire a golf architect, the cost of the project may exceed one's initial budget. The reason is that one of the golf architect's primary goals is to ensure clients perform tasks the proper way, rather than the cost-cutting way. So, yes, it is more expensive to utilize a golf architect than not... on the surface. Yet, most likely, that initial budget never included realistic quantities or costs because, frankly, it just costs more to do it the right way.

Once the decision to cut the architect is made and a project is underway, that unrealistic budget is strictly adhered to by cutting quantities and scope instead of assessing the overall approach. More corners are cut, resulting in a project that didn't achieve its initial purpose, yet sapped



Richard Mandell, ASGCA Associate

Based in Pinehurst, North Carolina, golf architect Richard Mandell's philosophy is founded on simplicity in design and inspiration in the land.

the club of its only remaining capital. Most likely, additional work will be required sooner down the road than later, rendering any cost savings moot in the process.

Without proper professional guidance, a club can spend much more out of the gate by taking 10 seemingly simple steps rather than five steps that may require slightly more time and money. Yet the result is much more value. That value and time-saving expertise is what the golf architect can bring to any size project.

Even with something as innocuous as replacing bunker sand, a seasoned expert may find a solution where one wasn't even looking. Simply fixing a bunker edge or reducing a bay for playability in the process could save the client extra effort or provide a much better product at a fraction of its cost to implement. ●

The second part of this article, where Mandell provides more detail on how a golf course architect brings value to even the smallest of design decisions for any golf course, is available at www.asgca.org. And visit the Free Publications section of the ASGCA website to download the 'Selecting Your Golf Course Architect: Questions & Answers' flyer.

Mandell also organizes the Symposium on Affordable Golf, with this year's event taking place in Canton, Ohio on 12-13 October. For more information, visit www.symposiumonaffordablegolf.com



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