

Lago Vista Golf Course Advisory Committee

Golf Course Renovation Recommendations
June 2023



A vertical decorative image on the left side of the slide. It shows a close-up of a white golf ball on a green, with a yellow flagstick in the background. The image is partially obscured by a white curved shape.

METHODOLOGY

- Considered:
 - Master Plan Concepts 1-3
 - Greens Complexes
- Did a SWOT Analysis on Concept 1-3
- Concept 1 & 2 (greens, tees, bunkers, fairways) are a cost concern
- Focused on:
 - Concept 3 (greens, tees, bunkers, All practice areas)
 - Greens Complexes (greens, green side bunkers, collars, putting green)

A photograph of a golf course green. In the foreground, a white golf ball sits on the grass. To the left, a yellow flag is visible in a hole. The background shows a blurred view of trees and a clear sky.

CONCEPT 3

- Greens, Tees, Bunkers & All Practice Areas Renovation
 - Great First Impression
 - Provides an Excellent Golf Experience
- Course Improvements made in Conjunction with **and** Contingent upon Irrigation System Installation
- ROI Improvement
 - Attract golfers of all skill levels
 - Opportunity to Breakeven
- Estimated cost of completion is \$3.5M
 - Best Value-Optimal Features and Benefits for the cost
 - Impact to Lago Vista taxpayers TBD based on City Council decisions

A photograph of a golf green with a white ball and a yellow flag, positioned on the left side of the slide.

GREENS COMPLEXES

- Greens, Green Side Bunkers, Collars, and Putting Green
 - Provides an improved golf experience
- Course Improvements made in Conjunction with and Contingent upon Irrigation System Installation
- Should bring play back to pre-Covid levels (approx. 25K Rnds/Yr)
 - Will require ongoing General Fund transfers to cover expenses and future improvements
- Estimated cost of completion is \$2.6M
 - Impact to Lago Vista taxpayers TBD based on City Council decisions
- Cost difference between Greens Complexes and Concept 3 is not significant enough to influence voter response

OPTION COMPARISONS

Concept 3

Pros:

- Professional onsite construction oversight to ensure quality implementation of the plan
- This option would garner the most interest and additional outside play much sooner than greens complexes option (*revenue*)
- Provides the highest customer satisfaction, and would increase City of Lago Vista revenue faster than greens complexes option (*eco tourism*)
- Reduces play disruptions by completing major course renovations and irrigation installation simultaneously
- More extensive renovations should reduce overall maintenance costs
- There are multiple examples of courses whose ROI has increased with major renovations. (some examples in the Appendix)

Cons:

- The \$3.5 million GO bonds may be too high for voter approval
- GO bond funding timing (4-5 months) would push front nine renovations to 2025 or beyond

Greens Complexes

Pros:

- Professional onsite construction oversight to ensure quality implementation of the plan
- Lower initial cost than Concept 3
- Reduced GO Bond amount could improve probability of voter approval
- Should improve public play and improve revenue to pre-Covid levels (approx 25K rounds/year)

Cons:

- Requires phasing improvements to other areas of the golf course, over an extended time, which creates a substantial cost increase to implement
- Would require ongoing course renovations, disrupting play, and impacting customer satisfaction, which in turn will impact revenue
- Greens Complexes option is initially a lower cost but will require additional expenditures over time to complete other needed improvements
- Will require ongoing General Fund transfers to cover operating expenses

A decorative image on the left side of the slide showing a white golf ball on a green lawn next to a hole with a yellow flag. The image is partially obscured by a white curved shape.

GCAC RECOMMENDATION

- **Implement Master Plan Concept 3**
 - GO Bond on 2023 Ballot to allow optimum construction cycle (depends on Public Works infrastructure plan)
 - City of Lago Vista management and staff assists with preparing and disseminating information for the GO Bond
 - Construction of Front 9 in 2025, Back 9 in 2026
 - Keep one 9 open for play for revenue stream during construction



APPENDIX

- SWOT Analysis
- Strategic Course Analysis
- Greens Complexes Estimated Cost (*Architect's*)
- Information on Related Topics
 - **Forest Creek Renovation, City of Round Rock,** multiple sources
 - **Fort Worth Rockwood Park Golf Course Renovation,** multiple sources
 - **Lago Vista Golf Course Annual Rounds,** Lago Vista Golf Course Improvement Plan, Chris Godwin, January 2020.
 - **Number of Golfers Increasing,** Executive Golfer Weekly Digest, April 24, 2023
 - **Thoughts on Project Phasing,** Stovey Bowlin: LVGC Irrigation System Evaluation Report, dtd July 2017
 - **Bunker Reduction Plans,** Jeffery D. Brauer, member American Society of Golf Course Architects
 - **Making Tees a Priority,** Elliot Dowling, agronomist, Northeast Region.
 - **Tee Boxes Should Leave a Lasting Impression,** Craig Pearson

LVGC Renovation SWOT Analysis		LVGC Renovation SWOT Analysis	
5/17/2023		5/17/2023	
Master Plan Concept 3		Green Complexes Plan	
Proposal		Proposal	
1. Renovate greens, tees, bunkers and all practice areas relative to Master Plan Concept 3		1. Green Complexes: greens, green side bunkers, collars, putting green only	
a. Greens resized and shaped to increase pin placements and improve maintainability		a. Greens resized and shaped to increase pin placements and improve maintainability	
b. Tee boxes reconstructed to expand useable area and improve maintainability. Potentially add a 5th (Jr.) tee box		b. Tee boxes: Not included	
c. Bunker modifications to reduce maintenance time & cost, add proper drainage and improve playability		c. Green Side Bunkers only. Modifications to reduce maintenance time & cost, add proper drainage and improve playability	
i. Could involve reducing total number, size and placements from Master Plan			
ii. Major goal is to reduce maintenance, improve pace of play, and provide enough visual benefit to attract golfers of all levels			
2. Estimated cost is \$3.5M to be funded from a GO bond		2. Estimated cost is \$2.6M to be funded from a GO bond	
Assumptions		Assumptions	
1. The city will sell certificates of obligation (CO's) to fund effluent irrigation fall of 2023		1. The city will sell certificates of obligation (CO's) to fund effluent irrigation fall of 2023	
2. Voters will pass a General Obligation (GO) bonds in the November 2023 election		2. Voters will pass a General Obligation (GO) bonds in the November 2023 election	
3. Construction of new effluent pond on Hole #2 would be completed and ready for use by the start of the growing season (May 2025)		3. Construction of new effluent pond on Hole #2 would be completed and ready for use by the start of the growing season (May 2025)	
4. Funds from the sale of the GO bonds will be available to complete construction of the front 9 by the growing season start (May 2025)		4. Funds from the sale of the GO bonds will be available to complete construction of the front 9 by the growing season start (May 2025)	
Implementation Recommendations		Implementation Recommendations	
1. Implementation would be done 9 holes each calendar year while maintaining play on the other nine holes (2025 and 2026)		1. Implementation would be done 9 holes each calendar year while maintaining play on the other nine holes. (2025 and 2026)	
2. Irrigation is installed in conjunction with golf course renovations, 9 holes per year		2. Irrigation is installed in conjunction with golf course renovations, 9 holes per year	
3. Develop and implement a significant Marketing and PR campaign to attract new players and to get dissatisfied golfers to return		3. Develop and implement a significant Marketing and PR campaign to attract new players and to get dissatisfied golfers to return	

LVGC Renovation SWOT Analysis 5/17/2023	LVGC Renovation SWOT Analysis 5/17/2023
Master Plan Concept 3	Green Complexes Plan
Pros	Pros
1. Professional onsite construction oversight to ensure quality implementation of the plan	1. Professional onsite construction oversight to ensure quality implementation of the plan
2. This option would garner the most interest and additional outside play much sooner than greens complexes option (<i>revenue</i>)	2. Lower initial cost than Concept 3
3. Provides the highest customer satisfaction, and would increase City of Lago Vista revenue faster than greens complexes option (<i>eco tourism</i>)	3. Reduced GO Bond amount could improve probability of voter approval
4. Reduces play disruptions by completing major course renovations and irrigation simultaneously	4. Should improve public play and improve revenue to pre-Covid levels (approx 25K rounds/year)
5. More extensive renovations should reduce overall maintenance costs	
6. There are multiple examples of courses whose ROI has increased with major renovations	
Cons	Cons
1. The \$3.5 million amount of the GO bond may be too high for voter approval	1. Requires phasing improvements to other areas of the golf course, over an extended time, which creates a substantial cost increase to implement
2. GO bond funding timing (4-5 months) would push front nine renovations to 2025 or beyond	2. Would require ongoing course renovations, disrupting play, and impacting customer satisfaction, which in turn will impact revenue
	3. Greens Complexes option is initially a lower cost but will require additional expenditures over time to complete other needed improvements
	4. Will require ongoing General Fund transfers to cover operating expenses
Opportunities	Opportunities
1. Could allow increasing golf rates more quickly due to extensive improvements to the course	1. Unique course views could offset some of the other course deficiencies
2. Could increase golf tournaments and take advantage of the natural views on the course	2. Reduce the level of General Fund transfers with improved revenue over current levels
3. A golf course in great condition, with a professional that could give lessons, attract and properly run youth camps, and properly host outings and tournaments	

LAGO VISTA GOLF COURSE

GREENS COMPLEXES (GREENS & BUNKERS) ONLY

Item	Unit	Quantity	Unit Price	Total Price
1. Mobilization & Staking (Lump Sum)	ls	1	150,000.00	150,000.00
Total Lump Sum Price for Mobilization & Staking				150,000.00
2. Clearing & Grubbing				
2.1 Existing Turf Removal	ac	20	2,000.00	40,000.00
2.2 Clearing	ac	3	5,000.00	15,000.00
Total Measured Sum Price for Clearing				55,000.00
3. Earthmoving & Rough Shaping				
3.1 Earthmoving				
3.1.1 Excavation	cy	45,000	6.00	270,000.00
Total Measured Sum Price for Earthmoving & Rough Shaping				270,000.00
4. Subsurface Drainage				
4.1 Inlet Structures				
4.1.1 12" Catchbasins	ea	40	900.00	36,000.00
4.1.2 18" Catchbasins	ea	0	0.00	0.00
4.1.3 24" Catchbasins	ea	0	0.00	0.00
4.1.4 48" Lake Overflow Structures	ea	0	0.00	0.00
4.2 Pipe				
4.2.1 6" C.P.P.	lf	6,000	13.00	78,000.00
4.2.2 8" C.P.P.	lf	0	0.00	0.00
4.2.3 12" C.P.P.	lf	0	0.00	0.00
4.2.4 24" C.P.P.	lf	0	0.00	0.00
Total Measured Sum Price for Subsurface Drainage				114,000.00
5. Fine Grading				
5.1 Tee, Green & Bunker Construction				
5.1.1 Root Zone Mix	cy	4,074	150.00	611,100.00
5.1.2 Greens Gravel	cy	1,358	120.00	162,960.00
5.1.3 Bunker Gravel	cy	629	120.00	75,480.00
5.1.4 Bunker Sand	cy	494	230.00	113,620.00
5.1.5 4" Perf. Pipe (Rigid)	lf	15,000	10.00	150,000.00
5.1.6 4" Solid Pipe (Rigid)	lf	12,000	10.00	120,000.00
5.1.6 Better Billy Bunker	sf	40,000	2.35	94,000.00
5.1.8 Tee Mix (2" Depth)	cy	0	100.00	0.00
5.2 Feature Shaping	Hole	19	12,500.00	237,500.00
Total Measured Sum Price for Fine Grading & Lump Sum Price for Feature Shaping				1,564,660.00

6. Grassing				
6.1 Planting Greens	sf	110,000	0.85	93,500.00
6.2 Planting Tees	sf	0	0.55	0.00
6.3 Planting Fairways & Roughs	ac	9.5	4,200.00	39,900.00
6.4 Sodding	sy	34,200	7.50	256,500.00
Total Measured Sum Price for Grassing				389,900.00
7. Other Construction				
7.1 SWPPP (Permit Application & Fees)	ls	1	5,000.00	5,000.00
7.2 Reinforced Silt Fence	lf	4,000	6.50	26,000.00
7.3 Bulkheading	lf	0	300.00	0.00
Total Measured Sum Price for Other Construction				31,000.00
8. Cart Path Construction				
8.1 Cart Paths (8' wide, 4" thick)	sf	0	6.50	0.00
8.2 Cart Path Crossing (Bridges)	ea	0	0.00	0.00
8.3 Curbing	lf	0	10.00	0.00
8.4 Cart Path Demolition	sf	0	1.00	0.00
Total Measured Sum Price for Cart Path Construction				0.00
9. Irrigation				
9.1 Irrigation	ls	1	0.00	0.00
Total Measured Sum Price for Irrigation				0.00
TOTAL CONTRACT SUM				2,574,560.00
10. Non-Construction items				
10.1 Grow-in	ls	1	160,000.00	160,000.00
10.2 Golf Course Architecture Fees	ls	1	200,000.00	200,000.00
10.3 Irrigation Design Fees	ls	1	0.00	0.00
10.4 Performance & Payment Bond	ls	1	70,000.00	50,000.00
Total Lump Sum Price for Non-Construction Items				410,000.00

MARKET			
Market	Target Segments	Industry Trends	Key Competitors
Local - LV, Jonestown, Point Venture Regional - Georgetown/Marble Falls/Austin Central Texas - Temple to San Antonio	Retirees Young professionals Avid golfers Youth Destination Golfers Families	Golf Participation is increasing More youth are taking golf seriously	Crystal Falls Forrest Creek Avery Ranch Star Ranch Point Venture Falconhead Light House Delaware Springs

SWOT			
Strengths	Weaknesses	Opportunities	Threats
1. Irrigation of golf course though Bond funding 2. Improvement to greens, fairways, bunkers and tee boxes 3. Irrigation of course under Public Works Dept. 4. Five (Tee Boxes) allows for greater satisfaction 5. New Practice Area which includes a mat area that one hit clubs and drivers off the mat, new putting and chipping area. 6. The overall layout and views on the existing golf course.	1. Lack of options to impove hole # 9 instead of making it Par 3, versus removing the current green. Homeowners would not appreciate the 2. Current lack of funding through City of LV Budget 3. Lack of personnel for proper operation maintenance 4. Additional bunkers would be hard to maintain w/current headcount of employees 5. Lack of knowledge on how to utilize Blume's three options and outlined costs to provide options to the Master Plan and then compare options 6. Green Replacement 18 greens x 90K = \$1,620,000 could be a limiting factor in relation to the overall cost of the plan 7. Master Golf Plan depended on the community vote	1. To improve Revenue Stream and Customer Satisfaction 2. To enhance outside play (Destination Place) 3. Improvement to Pace of Play 4. Hiring a Project Manager Consultant to oversee the entire project. 5. For City Council to invest and operate course at an acceptable level and have an attractive and marketable product. 6. Community non-golf related events leading up to the vote so that the community has a better understanding 7. Bring I high school golf teacher to conduct golf lessons over the summer months.	1. Voting community does not see the value associated with a well maintained golf course 2. Community votes the plan down 3. Disgruntled members or Passholders: significant lack of support from our golfers. 4. If our golfers are not advocates , then how can we expect the general public to support the plan 5. City gains a bad reputation in relation to golf course and losses the only real destination location in which the Cities(??) control 6. Loss Revenue

Current Course Conditions	Suggestions	Appealing Evaluation of a Golf Course by Outside Players	Threats to Suggestions
1.. Greens are not playable (Brown Patch & Poa Annua) 2. Tee Boxes are unlevel & need grass 3. Irrigation not uniformed therefore some Greens, Fairways and Roughs receive too much water and other areas too little water creating uneven growth. 4. Poor irrigation structure and non-working heads leave green circles and brown patches. Virtually no rough watering which leads to ball run out and a poor 5. Current bunkers have poor base and drainage which leads to excess cost for constant material replacement and maintenance, 6. Tree Trimming needed on several holes (i.e. cut trees on left, cut tree on right near green to make green more assessable)	1. Need for a PGA General Manager/Director of Operations (experienced and credential) responsible and accountable to City Manager 2. Holes 3: A different optional approach needed. Maybe moving the tee boxes to other side of cart path and trimming/removal of trees to make green assessable 3. Hole 9: A different optional approach needed. Build a 2 layer brink wall down the right side a fairway to prevent lost balls - would increase Speed of Play. Keep current green where it is. Put direction poles on hole to help golfers not find them/come 4. Place a Bell or Light at the Top of Hill (where Blindshots exits on holes 8, 9, & 13) This would help Speed od Play. 5. No need for Directional Bunkers - too hard to maintain the existing bunkers with current headcount of employees 6. Five tee points: Red - Women/Juniors, Green - Seniors on same tee box area, White & Blue on the same tees box area, Gold tees -all the way back 7. Irrigation set to current greens with additional connection options for expansion if appropriate	1. Top Notch Practice Area - 1st impression of the course -(enhanced putting & chipping area, new mats that golfers can use irons and drivers with a tee) - 2. Clean Golf Carts with GPS capability 3. Ability to get quality Food & Beer quickly during the round or after play is over 4 Speed of Play: (3 1/2 to 4 hours max) 5. Tees that have grass on them and are level 6. Greens that roll effectively giving the golfer an opportunity to make the putt	1. Lack of Budget information on the various components 2. Lack of an acceptable GO Bond amount that the community would accept 3. Lack of information on Public Works Plan in relationship to effluent water distribution and needs of community 4. City Council waiting on our evaluation but need additional guidelines so that we can be more effective

MARKET

Blume Master Plan Concept 3	Estimate Costs Concept 3 Greens, Bunker & Tees	Open	Open
<div>1.Redo Greens and Tees per MP-C3</div> <div>a. Redo bunkers with some changes to MP to reduce overall number, remove from line of play and ??</div> <div>b. NOTE: Irrigation installed during course renovations.</div> <div>2. Changes made 9 holes at a time.</div> <div>a. Keep other 9 holes open for play</div> <div>b. Overall timeline is 2 years, 1 year per nine holes.</div> <div>3. Estimated cost is \$3.5M (per Blume)</div> <div>4. Funded with a GO bond</div> <div>a. Unlikely voters would approve a standalone Golf bond.</div> <div>b. Probability less than 50%</div> <div>c. Wrap with other ‘amenities’ in an overall package</div> <div>5. Revenue/play could decrease even further during renovation.</div> <div>a. Revenue/play should increase with ‘new 9’ open but full affect not expected until all 18 are completed and open</div> <div>b. Then will take significant marketing/PR to attract new play and get those soured players to return.</div> <div>6. PROs</div> <div>a. Complete all renovations, course and irrigation simultaneously</div> <div>b. ‘renovated’ course will attract attention and draw outside play</div> <div>c. Potential green fee increase or at least obtain a consistent play at current rate and remove deep discounts.</div> <div>7. CONs</div> <div>a. Cost of implementation would require a bond and voter approval</div> <div>b. With only 9 holes open until all renovation complete, could reduce play even further than current.</div>	<div>Total</div> <div>Price 1. Mobilization/Staking</div> <div>\$150,000</div> <div>2. Clearing & Grubbing \$</div> <div>85,000</div> <div>3. Earthmoving & Rough</div> <div>Shaping & Excavation</div> <div>\$540,000</div> <div>4. Subsurface Drainage</div> <div>\$149,000 *</div> <div>5. Fine Grading</div> <div>5.1 Tee, Green, Bunker</div> <div>Construction</div> <div>\$666,600 5.11 Root Zone Mix</div> <div>\$177,720 5.12 Greens Gravel</div> <div>\$ 75,480 5.13 Bunker Gravel</div> <div>\$113,620 5,14 4"Perf Pipe (Rigid)</div> <div>\$160,000 5.15 4" Solid Pipe (Rigid)</div> <div>\$120,000 5.16 Better Billy Bunker</div> <div>\$ 94,000 5.17 Tee Mix (2" Depth)</div> <div>\$108,600 5.2 Feature Shaping 19</div> <div>holes \$237,500 TOTAL</div> <div>\$1,753,520 *</div> <div>6. Grassing Tees, Fairway &</div> <div>Roughs</div> <div>\$728,300 7. Other construction</div> <div>Permits Application</div> <div>\$5,000 Reinforced</div> <div>Silt Fence \$26,000</div> <div>TOTAL</div> <div>\$31,000 8.Cart Path Construction</div> <div>\$ 0,000 9. Irrigation</div> <div>\$ 0,000 TOTAL/TOTAL</div> <div>\$3,436,820 10. Total Contract Sum</div> <div>10.1 Grow-In & Architecture</div> <div>\$455,000</div>		

APPENDIX

5/17/23

Information on Related Topics

Forest Creek Renovation, City of Round Rock

Jeff Dayton, Kemper Sports, general manager at Forest Creek. July 29, 2023

"I cannot really elaborate on any financial information other than what is available on the City of Round Rock website. I can tell you, it was a success and we have been enjoying increased business and customer satisfaction ever since the renovation. Thanks and good luck!"

Information obtained from City of Round Rock RFP dated 2016.

Forest Creek, before renovation, had over 40K rounds in 2012. That was trending down to around 30K by 2015-16 and the decrease was attributed to, by the city, as a "declining golf experience compared to Star Ranch and Avery Ranch". City of Round Rock justified spending \$3.4M on course renovations in 2018 and it appears another 1.7M on other golf related items since, I read articles that the total package was \$5.1M (in 2018 dollars so much more today given the increases we have seen). Since renovation Forest Creek has been operated by a golf management company (Kemper Sports) so golf related data/financials are not available on the city website.

Forest Creek Golf Club has completed a substantial renovation to all facets of the golf course including: *(city of Round Rock website)*

- * Rebuilding of the current 18 greens, putting green and chipping green to USGA specifications with Tif-Eagle Bermuda
- * Addition of a new extra green and extra tee area to create the option of 19 hole tournaments and events
- * Complete renovation of the driving range to include new tee area, regrading of the range, target greens, bunkers, and LED lighting for night time practice
- * Reconstruction of all bunkers using the Better Billy Bunker method
- * Improved drainage in low lying areas of the course
- * Installation of new course irrigation system
- * Replacement of 7 cart bridges
- * Reinforcement and re-decking of 2 cart bridges

We re-opened on October 1st, 2018 and the early reviews are great! Come see all the exciting new changes.

Fort Worth Rockwood Park Golf Course Renovation

‘Easier to maintain a new course than old course’ *Dave Lewis, Asst Director, Parks & Recreation, Fort Worth TX*

“We consider the Rockwood Park transformation so successful for Fort Worth golfers, we are using that as the model, the template for future projects.” “With the recent bond measure passing, that’s certainly what we want to do for Meadowbrook,” said Dave Lewis, the Assistant Director for Fort Worth Park & Recreation Department.

Source: *Texas Golf Insider-Landa Park- Summer 2022*

Excerpts from an Article by [TheFamousJay](#) on May 13, 2021

Beginning in November 2015, the course underwent a \$5.1 million renovation led by the design team of John Colligan and associate Trey Kemp.

The renovation included a new routing plan with new greens, tees, fairways, bunkering system, drainage and cart paths.

The new \$7.7 million clubhouse was funded by the 2018 City of Fort Worth bond program.

Full article can be found at <https://iloveftw.com/grand-opening-set-may-20-at-rockwood-park-golf-courses-new-clubhouse/>

Lago Vista Golf Course Annual Rounds

Lago Vista Golf Course Improvement Plan, Chris Godwin, January 2020. Pg 3.

Memberships

There are currently 84 members for the Golf Course. Of those members, 42 utilize their personal carts while on the golf course and 42 utilize City owned golf carts.

Rounds Played

There are an estimated 22,000 rounds of golf played annually at the Lago Vista Golf Course. Members account for approximately 7,094 of those rounds while non-members play an estimated 14,096 rounds annually.

Tournaments

There were 20 tournaments hosted at the Lago Vista Golf Course last year.

Number of Golfers Increasing

Executive Golfer Weekly Digest

Mark Pazdur

Publisher

Mark@ExecutiveGolferMagazine.com

April 24, 2023

You're correct in thinking it's more difficult to secure a tee time.

The number of American golfers with an active USGA handicap **has surged nearly 17% in the past two years** with nearly 420,000 players establishing handicaps in 2022.

As you would expect, **new golfers** are raising the average USGA handicaps for both men and women across the country.

For men, the overall average USGA handicap in 2022 was 14.0, while the average for new players was 15.6.

For women, the overall average USGA handicap in 2022 was 27.9, while the average for new players was 31.7.

Thoughts on Project Phasing,

(this article was with reference to Irrigation projects but is applicable to other construction projects)

An excerpt from Lago Vista & Highland Lakes Golf Courses Irrigation System Evaluation Report, by Stovey L. Bowlin, PhD, Bowlin Consulting, dated 1 July 2017.

"At the end of both of these projects, it was obvious that the project cost was significantly higher than if the projects had been completed at the same time. Even on the project that was completed in-house, when staff man-hours and equipment rentals were included, the cost was almost half again as much as the original contractor's estimate."

Several factors contribute to the increased cost of phasing in an irrigation project over time. One of the biggest expenses is paying the contractor to mobilize in phase 1, demobilize in phase 1, remobilize in phase 2, etc. And, there is almost always an increase in materials over time. There may also be other factors influenced by simple cost of living increases.

If you were to talk to golf staff that have lived through a phased irrigation project, they would tell you that although the additional project costs are a significant concern, the greatest problem with phasing over time is the disruption in play and routine maintenance and the frustrations experienced by the membership and guests.”

Bunker Reduction Plans

[Jeffrey D. Brauer](#) | July 2017

Our charge in renovation planning is usually to find ways to increase course attractiveness (because it sells greens fees) while simultaneously reducing costs. Using these techniques, we have reduced total sand bunker area by 10 to 25 percent, helping cost conscious courses achieve both.

Jeffrey D. Brauer is a veteran golf course architect responsible for more than 50 new courses and more than 100 renovations. A member and past president of the American Society of Golf Course Architects, he is president of Jeffrey D. Brauer/GolfScapes in Arlington, Texas. Reach him at jeff@jeffreydbrauer.com.

Full article can be found at <https://www.golfcourseindustry.com/article/bunker-reduction-plans/>

Making Tees a Priority

September 03, 2021

Elliott Dowling, agronomist, Northeast Region

Key Takeaways

- Tees do not seem to get the attention that they need until there is a problem.
- Tee size plays a significant role in appearance, turf health and playability.
- Constructing tees to match annual rounds will help ensure that they are large enough to spread traffic around evenly.
- Appropriate growing environments are just as important for tees as they are for greens and fairways. Tees growing in shaded areas with poor air movement will have weaker turf that does not recover as quickly as those in better environments.
- Better positioning of tees is necessary to ensure players of all ages and abilities play an equitable course that is both fair and fun.

Conclusion

Providing suitable teeing options and keeping heavily used tees in good shape has always been challenging but taking concrete steps to address these issues couldn't be more timely. The year 2020 saw a net gain of 61 million rounds over 2019 in the U.S., which meant that undersized tees at many courses showed their weaknesses. There was also the highest-ever inflow of beginning and returning golfers (6.2 million players) along with the highest recorded increase in youth players (+25%) since 1997. The number of female golfers also increased by about 450,000 (NGF 2021). These are players that have typically been underserved in terms of teeing options. Making improvements in these areas is a relatively low-cost and high-impact way to improve the overall golf experience and hopefully retain some of the surge in interest that golf has recently enjoyed.

Working with a golf course architect is recommended when it comes to finalizing new teeing locations because of the many factors involved beyond simply the yardage. However, building new tees, expanding tees, converting tees to more suitable grasses and improving growing environments are all areas that superintendents can often make significant progress working with their in-house team. These improvements can be made at a reasonable cost and often deliver a quick return on investment when you consider the improved playing conditions and golfer satisfaction.

Remainder of this article can be found at

<https://www.usga.org/content/usga/home-page/course-care/green-section-record/59/16/shifting-the-focus-of-tees-from-an-afterthought-to-a-priority.html>

Tee Boxes Should Leave a Lasting Impression

The tee boxes should leave a lasting impression on the paying customer. Right from the first tee, we want to establish a quality product golfers will remember, -- Craig Pearson, superintendent, Golf Club at Whitehawk Ranch

Quote obtained from Lago Vista Golf Course Improvement Plan, Chris Godwin, January 2020