



Williams Creek Golf Course

Golf Course Assessment – June 2023

Prepared By:
Trey Kemp, ASGCA



Table of Contents

- I. **Foreward** 2

- II. **Golf Course** 3
 - General Overview
 - Greens
 - Tees
 - Fairways
 - Cart Paths
 - Hazzards
 - Drainage
 - Practice Facilities

- III. **Hole by Hole Analysis**..... 10

- IV. **Summary** 29

- V. **Estimate of Probable Cost**..... 30

- VI. **Alternative Non-Golf Idea** 32

Forward

Trey Kemp, ASGCA has been retained by JJKeegan+ to provide a golf course assessment for Williams Creek Golf Course. The assessment has been composed to provide the City of Knoxville with an overview of the conditions of the various components associated with the facility and the cost to bring these components up to standards expected of a golf course in the Knoxville area.

The items addressed in our report are:

1. General Overview

- a. Aesthetics
- b. Playability
- c. Maintainability
- d. Security/Vandalism

2. Greens

- a. Size
- b. Grass Conditions
- c. Contour Analysis
- d. General Character

3. Tees

- a. Size
- b. Condition

4. Fairways

- a. Character
- b. Conditions

5. Cart Paths

- a. Condition
- b. Impact on course

6. Hazards

- a. Sand Bunkers
- b. Water
- c. Rough
- d. Trees

7. Drainage

- a. Flood Issues
- b. Erosion/Siltation
- c. Adjacent Development
- d. On Course Drainage

8. Practice Facilities

- a. Putting Green
- b. Short Game Area
- c. Practice Range

9. Golf Course – Expected Life Cycle

10. Hole-By-Hole Analysis

11. Estimate of Probable Costs

12. Alternative Options

Golf Course

The overall analysis of the golf course was performed by Trey Kemp, ASGCA. An onsite visit of the golf course was conducted on June 21st and was attended by the following:

Lee Whitehead, Director of Golf – Williams Creek Golf Course
Chuck Drake, Superintendent – Williams Creek Golf Course
Trey Kemp, ASGCA, Golf Course Architect – Kemp Golf Course Design

A meeting to discuss the golf course was also held after the site visit and that was attend by the following:

Lee Whitehead, Director of Golf – Williams Creek Golf Course
Chuck Drake, Superintendent – Williams Creek Golf Course
Alan Gibb, Chairman – Williams Creek Youth Foundation
JJ Keegan, Principal – JJ Keegan+
Trey Kemp, ASGCA, Golf Course Architect – Kemp Golf Course Design

The following observations were made and will provide an overview of each component of Williams Creek Golf Course.

1. General Items

a. Aesthetics

The combination of mature trees, creeks/water features, bunkers, topography, and a well routed golf course has created a golf facility high on aesthetic appeal with the potential to be more. The beautiful view from the back of the clubhouse and putting green shows off the property and gives the golfer an idea of what they are about to experience.

b. Playability

While the aesthetic items do much for the beauty of the course, they also serve to make some of the holes on the course challenging. There are a few holes with forced carries that make it tough for beginners, but overall, the golf course is very playable.

c. Maintainability

Once again, those items which make the course so visually appealing do make the maintenance more difficult. A great deal of tree work has taken place over the past few years, but there are still a few areas that are in need of trimming and/or under brushing. Creeks, water bodies, and drainage ways require cleaning ongoing daily maintenance.

d. Security/Vandalism

As with any golf course, Williams Creek is vulnerable to acts of vandalism. The secluded nature of the clubhouse off of Dandridge Avenue could be a spot of concern during overnight hours. A gate at the front entry is something the golf course should look into and consider.

2. Greens

a. Size

Based on measurements taken from a recent aerial, the total square footage for greens on the golf course is approximately 108,000 square feet, the greens on the golf course average 5,400 square feet per green. The practice putting green is 8,000 square feet and short game green is 2,900 square feet. This square footage on the golf course is adequate given the number of rounds the course is presently hosting and should be able to handle up to 30,000 rounds per year. The recently renovated and enlarged practice putting green was a nice and needed addition. The short game green could be larger to accommodate the number of golfers playing the course, the First Tee program, and those coming out just to practice.

b. Grass Condition

At the time of this assessment, the turf on the greens were in great shape, especially compared to other courses in the area. Winterkill has been an issue in the area this spring, but there are very few signs of that at Williams Creek.

c. General Character

The greens at Williams Creek have very nice shapes to them with a nice variety. Each green and greens surround have their own character and present a different challenge for the golfer.

d. Contour Analysis

For the most part the greens at Williams Creek are relatively moderate in their contouring. There are a few holes that are a little bit more severe (like the 9th), but a few greens like that can be fun and add interest to the golf course, which the 9th green does.

In general, the greens accept a well struck approach shot and roll true at a moderate speed acceptable for public play.

3. Tees

a. Size

As with the greens, the surface area on the tees should be more than adequate for up to 30,000 rounds per year. The addition of the Turf Hound artificial tees on each hole will help the wear and tear of the tees in the winter months. The tee on the practice range could be enlarged to provide more hitting space.

b. Turf Condition

At the time of this assessment, the turf on the tees were in good shape. Again, winterkill has been a major issue this year at other local courses, but there are no signs of that at William Creek.

4. Fairways

a. Character

While this is a par-3 course and the size of the fairways is not the same as a full-length golf course, the fairways are still an integral part. The overall character of the fairways is nice and gently rolling with adequate surface drainage throughout the layout.

b. Turf Condition

At the time of this assessment, the turf on the fairways was in good shape.

5. Hazards

a. Sand Bunkers

All the sand bunkers have recently been rebuilt with capillary concrete bunkers, which should provide a long life for the bunkers.

b. Water

Water in the form of a creek and two ponds are a prominent feature of the course. The creek comes into play on the 1st and 9th holes and the pond comes into play on the 14th and 15th holes. The creek on the 1st hole could be enhanced and the irrigation pond could be enlarged. Both improvements would add to the aesthetics of the golf course.

c. Rough

The rough at Williams Creek is being maintained at a reasonable height for a public golf course allowing for some definition between fairway and rough height. It is currently at a height which will allow a player to find and advance their ball which is perfect for public golf.

d. Trees

Trees are a dominant feature of the course. They play a big part in the ambiance of the layout as well as the course strategy. However, there are a few areas that could use some trimming or removal. The 1st hole is a good example. If a few trees were removed it would show off the topography and open up a view of the creek from the tee.

6. Cart Paths

a. Impact on the Course

The cart path system at Williams Creek has very little impact on the visual appearance of the course. The path is laid out well as it relates to features of the course.

b. Condition

Overall, the condition of the cart paths is good. The cart path right of hole 9 should be studied and possibly widened where there is two-way traffic with carts down from hole 1.

7. Drainage

a. Flood Issues

As with many golf courses built today, Williams Creek is prone to some flooding. It appears that the golf course has been designed well and none of the features on the course should be affected during a flood event.

b. Adjacent Land

At the time of the site visit it did not appear that the adjacent land had any adverse effects on the drainage of the golf course.

c. On Course Drainage

Overall, the golf course drainage is very good, there are a few minor drainage issues like the area on the left side of the 16th hole, but as a whole the golf course drains well.

8. Practice Facilities

a. Putting Green

With approximately 8,000 square feet, the putting green is adequate during slow to moderate times of play. The green has soft contouring which allows for use of the entire square footage when moving cup locations. The green is situated in a good spot convenient to hole 1, the clubhouse, and practice range.

b. Short Game Area

Over the past ten years, short game practice has been brought to the forefront of importance in the game of golf. To be viewed as an upper tier facility, a nice short game area is critical. The short game area at Williams Creek is located at a convenient spot next to the 10th tee and Wee Course. At present the green is only 2,900 square feet in size with one sand bunker. Enlarging the green size in the future is recommended to spread out the wear and tear.

c. Practice Range

The practice range at Williams Creek is one area that could be improved. Currently the tee is only 17,000 square feet and it looks like there is an opportunity to lower it and expand it backwards to almost double the size. This would help out with the wear and tear. The targets in the range could also use some work to make them stand out better from the teeing area. Smoothing out and adding drainage to range would also be a huge improvement, as it is hard to pick range balls in its current state.



Another area to address is the netting around the range, it should be improved when other range improvements are completed. The diagram below shows where netting might extend.



d. Wee Course

The Wee Course currently has three holes with greens all under 2,000 square feet. This is a great area to teach kids and those new to the game before they get out on the 18-hole course. It is a fun loop as it is now, but along with the driving range it could use some improvements to bring it up to the level of the golf course.

The current loop starts with a downhill shot and then you head back uphill on hole 2 and then there is a severe climb to get to the 3rd tee. While the Wee Course currently works for its intended use, the area has so much potential that it should be reviewed, and plans made to enhance the course and experience. The Wee Course is also the only location on the property where people driving by the course can see in, so creating a unique and appealing area will only help to gain excitement for the entire facility.



9. Golf Course – Expected Life Cycle

The following chart shows the expected life cycle of the different components of the golf course. Williams Creek is 20 years old, so it is nearing the end, or in some cases gone past the expected life cycle of these items. The course has done a good job of keeping these components updated, like the recent bunker renovation. It is recommended to start planning for greens and irrigation over the next 10-15 years.

GOLF COURSE ITEMS EXPECTED LIFE CYCLE

HOW LONG SHOULD PARTS OF THE GOLF COURSE LAST?

No two golf courses are alike except for one thing: deferring replacement of key items can lead to greater expense in the future, as well as a drop in conditioning and player enjoyment. The following information represents a realistic timeline for each item's longevity.

Component life spans can vary depending upon location of the golf course, quality of materials, original installation and past maintenance practices. The American Society of Golf Course Architects (ASGCA) encourages golf course leaders to work with an ASGCA member, superintendents and others to assess their course's components.

ITEM	YEARS
Greens (1)	15 – 30 years
Bunker Sand	5 – 7 years
Irrigation System	10 – 30 years
Irrigation Control System	10 – 15 years
Pump Station	15 – 20 years
Cart Paths – asphalt (2)	5 – 10 years (or longer)
Cart Paths – concrete	15 – 30 years (or longer)
Practice Range Tees	5 – 10 years
Tees	15 – 20 years
Corrugated Metal Pipes	15 – 30 years
Bunker Drainage Pipes (3)	5 – 10 years
Mulch	1 – 3 years
Grass (4)	Varies

NOTES: (1) Several factors can weigh into the decision to replace greens: accumulation of layers on the surface of the original construction, the desire to convert to new grasses and response to changes in the game from an architectural standpoint (like the interaction between green speed and hole locations). (2) Assumes on-going maintenance beginning 1 - 2 years after installation. (3) Typically replaced because the sand is being changed – while the machinery is there to change sand, it's often a good time to replace the drainage pipes as well. (4) As new grasses enter the marketplace – for example, those that are more drought and disease tolerant — replanting may be appropriate, depending upon the site.

ASGCA thanks those at the USGA Green Section, Golf Course Builders Association of America, Golf Course Superintendents Association of America and various suppliers for their assistance in compiling this information.

The materials presented on this chart have been reviewed by the following Allied Associations of Golf:



For more information, contact ASGCA at (262) 786-5960 or visit www.ASGCA.org

DATA COMPILED BY ASGCA, 125 NORTH EXECUTIVE DRIVE, SUITE 302, BROOKFIELD, WI 53005

Hole by Hole Analysis

Hole 1 – Par 3



BLUE	166
WHITE	138
GREEN	135
RED	106

Recommended Improvements

- The 1st hole at Williams Creek may be the most beautiful on the golf course and that beauty could be further enhanced by clearing several trees left of the green that are currently covered in Kudzu. Clearing this area would provide a view of the creek that runs on the left side of the green and then in front. This improvement would not only make the hole better, but this view is noticed by everyone who visits the clubhouse.
- The recently added bunker to the left side of the green is a nice addition that adds to the playability and strategy of the hole.

Hole by Hole Analysis

Hole 2 – Par 3



BLUE	110
WHITE	109
GREEN	110
RED	100

Recommended Improvements

- The 2nd hole is a nice contrast to the first, and the new lower tee has a great feel to it.
- The main recommendation on this hole would be to widen the fairway out in front and to the right of the green to allow golfers to feed the ball into the green from the hill.
- The left side of the hole will need to be monitored every year so that tree limbs and Kudzu do not encroach on the view of the green.

Hole by Hole Analysis

Hole 3 – Par 3



BLUE	94
WHITE	80
GREEN	63
RED	65

Recommended Improvements

- The shortest hole on the golf course also has the smallest green on the golf course measuring 2,570 square feet. Expanding this green on the back right portion of the green would give the green an additional pin location and help spread out play.
- Tree trimming and under brushing along the left side of the hole would help the aesthetics and playability of the hole.
- The 2 trees left inside the cart path were a topic of discussion on our tour of the course, I think they are fine, and they give the hole a different look than others on the course.

Hole by Hole Analysis

Hole 4 – Par 3



BLUE	118
WHITE	100
GREEN	113
RED	93

Recommended Improvements

- The 4th hole is a nice open par 3. One recommendation for the hole would be to look at adding a bunker on the left side of the green to catch errant shots before they kick into the trees. This would save golfers time in looking for golf balls and also give the golf hole more strategy based on where the pin is located.
- Tree trimming and under brushing along the left side of the hole would help the aesthetics and playability of the hole.

Hole by Hole Analysis

Hole 5 – Par 3



BLUE	260
WHITE	204
GREEN	160
RED	151

Recommended Improvements

- The 5th hole plays as the longest on the course at 260 yards. One idea would be to look at making it into a par-4 on the scorecard. This would give golfers of all abilities an opportunity to hit the green in two shots and make a birdie.
- The natural area between the blue and white tee is a nice touch and adds another layer to the course. Areas like this look great and lower maintenance labor and costs once established.
- Left of the green is the only location other than the clubhouse and maintenance facility where pedestrians or cars can enter the course. A split rail or wrought iron fence along the property line would look nice and help to deter people from entering the property.

Hole by Hole Analysis

Hole 6 – Par 3



BLUE	142
WHITE	94
GREEN	138
RED	86

Recommended Improvements

- The 6th at Williams Creek is a good golf hole with no major issues. The only recommendations here would be to continue establishing the natural areas. Once established this really enhances the aesthetics of the golf hole.

Hole by Hole Analysis

Hole 7 – Par 3



BLUE	172
WHITE	129
GREEN	135
RED	121

Recommended Improvements

- The addition of the back tee was done very well, and the added length has helped to add more distance variety on the front nine holes.
- Left of the green is severely sloped and balls hit here tend to kick into the natural area. Consider slightly regrading that area creating a subtle shoulder that would help keep balls in the rough.

Hole by Hole Analysis

Hole 8 – Par 3



BLUE	150
WHITE	128
GREEN	140
RED	109

Recommended Improvements

- The 8th hole is another hole where a new back tee has been added. The cart path has also been reconfigured around the tees and a bunker has been added to the left of the green. All of the items completed have really enhanced this hole.
- Tree trimming and under brushing along the right side of the hole would help the aesthetics and playability of the hole.

Hole by Hole Analysis

Hole 9 – Par 3



BLUE	170
WHITE	150
GREEN	155
RED	128

Recommended Improvements

- The 9th hole is a great way to finish off the front nine. The largest green on the front side also has the most contour. This amount of contour is fine when the greens are running at 9 or so on the Stimpmeter (device used to measure the speed of putting surfaces), but if faster speeds are desired softening some of those contours would be advised.
- The tree removal behind the green was a nice touch. Once the stumps and other leftover items are removed, the natural area should take off and look great.
- One area of concern is the cart path on the right side of the hole near the green. The path at that point is used by golfers on hole 1 and 9. If possible, it is advised to widen the path so 2 carts can pass.

Hole by Hole Analysis

Hole 10 – Par 3



BLUE	156
WHITE	115
GREEN	153
RED	82

Recommended Improvements

- The inviting 10th hole has the largest green on the golf course at 8,750 square feet. The removal of both greenside bunkers makes this a nice, simple hole to get your back nine started.
- The only recommendation here would be to work on the mowing patterns around the green now that turf has replaced the sand.

Hole by Hole Analysis

Hole 11 – Par 3



BLUE	160
WHITE	135
GREEN	133
RED	76

Recommended Improvements

- The 11th contrasts nicely with the prior hole. The new red tee also adds a unique looking feature to the hole.
- The only recommendation here is to trim back the trees and underbrush on the left side to open up the view to the new bunker left of the green.

Hole by Hole Analysis

Hole 12 – Par 3



BLUE	165
WHITE	118
GREEN	155
RED	110

Recommended Improvements

- The 12th is a narrow hole with a new bunker added to the right of the green helping to catch errant shots.
- This green is the last to thaw out in the Winter so removing a couple of trees behind and to the right of the green may help to bring sunlight to the area sooner.
- Tree trimming and under brushing along the right side of the hole would also help the aesthetics and playability of the hole.

Hole by Hole Analysis

Hole 13 – Par 3



BLUE	133
WHITE	100
GREEN	115
RED	90

Recommended Improvements

- The 13th is a good open hole to have right after the tight 12th.
- A new tee complex could be added back and to the right of the current tees providing a better angle of attack.
- Tree trimming and under brushing down the left side of the hole by the tees would enhance the visuals and keep those trees from encroaching the view of the green.

Hole by Hole Analysis

Hole 14 – Par 3



BLUE	170
WHITE	144
GREEN	150
RED	97

Recommended Improvements

- Hole 14 plays to the end of the property with two towering trees behind the green. The large tree on the left appears to be damaged and should be evaluated by an arborist to make sure that it is safe to stay.
- A bunker has been removed short and right of the green which will help the average to below average golfers.
- There is a pond to the left of the hole, but it is not visible from the back tees. Once recommendation would be to look at limbing up the large tree left of the tee to see if the golfer could get a glimpse of the water.

Hole by Hole Analysis

Hole 15 – Par 3



BLUE	168
WHITE	124
GREEN	100
RED	110

Recommended Improvements

- The 15th is a unique hole with two ponds bisected with a cart path. The back pond is an irrigation pond and needs to be enlarged to gain more water capacity.
- One idea would be to expand the pond to take up most of the area where the blue and white tees are currently located. This would make the hole noticeably shorter, which would not be a bad thing based on the hole length of the previous hole and the one to follow. The area to the back right of the green is also very steep making for tough recovery shots. The following page shows a simple diagram of the ideas.

Hole 15 –Diagram



Hole by Hole Analysis

Hole 16 – Par 3



BLUE	158
WHITE	121
GREEN	96
RED	83

Recommended Improvements

- Hole 16 is a good hole with a centerline bunker, the first on the course.
- The only recommendation on this hole would be to fill in and fix a minor drainage issue between the green and cart path.

Hole by Hole Analysis

Hole 17 – Par 3



BLUE	199
WHITE	170
GREEN	167
RED	139

Recommended Improvements

- The 17th is a good test at the end of the round.
- While the golf hole is great how it is, one idea brought up by staff was to add a back tee in order to create a short par-4 on the back 9. I think this is great idea and would add to the versatility of the hole and the golf course.

Hole by Hole Analysis

Hole 18 – Par 3



BLUE	178
WHITE	146
GREEN	146
RED	88

Recommended Improvements

- The 18th is a slightly downhill hole to end the round. The added bunker on the left side is a nice addition.
- The only recommendation here would be to trim back and possibly remove a few trees on the left side of the hole. This would open the hole up slightly and also allow the green to get more sun during the winter months.

Summary

Williams Creek Golf Course is easily one of the best 18-hole par 3 golf courses that I have seen. There are no glaring deficiencies with the golf course, just a few areas to consider improvements. The major areas where the facility could be improved are not on the course, but at the driving range and on the Wee Course. If these areas were all brought up to the standard of the golf course, Williams Creek would be the envy of any golf facility. The recommended following items should be addressed:

1. Driving Range

As mentioned earlier, the driving range could be improved. Lowering and enlarging the tee would allow for a longer rotation which in turn would give divots more time to heal, meaning less time hitting off of the artificial mats.

The targets in the driving range should also be addressed, making them more defined from the teeing area. While this is being done, drainage work and smoothing out the driving range floor would allow turf to grow and be maintained. This will also make it easier to pick up balls.

The netting of the driving range should also be addressed. A simple diagram of its expansion is on page 7 of this document.

2. Wee Course

The Wee Course is an area with untapped potential. While the 3 holes that are there now serve their purpose, it could be improved. A study to look at the entire area should be done in order to maximize its potential.

This is the window into the course for people driving by, improving this area, and creating something special for the First Tee program, and beginners will help to bring more people into the game of golf.

3. Strategic Planning for a new irrigation system and greens

The greens and irrigation system are currently functioning well, but it is never too early to start planning for the future even if that is for 10 to 15 years down the road. A new irrigation system and renovating greens are big-ticket items on the golf course and can be financially overwhelming when they are not planned for.

Estimate of Probable Cost – Williams Creek Golf Course

The following information includes typical unit costs for green, tee, mound, and fairway bunker construction. Each feature will naturally vary somewhat from the price. All are based on recent contractor’s bids for similar type projects and are stated in terms of 2023 prices and discussions with local contractors regarding this project.

Estimates for each phase of work have been prepared by extension of these typical prices to each work area. Trey Kemp, ASGCA does not warrant that final construction cost will not vary from these estimates in that:

1. Kemp Golf Course Design has no control over contractors, fluctuations in material prices or methods of billing.
2. Kemp Golf Course Design has made some assumptions on construction specifications and techniques, which may vary at the time of construction.
3. Kemp Golf Course Design has no control over inflation.
4. Golf Course’s selection of phases to do more or less work at any given time will affect prices, as there is “economy of scale” in doing more work at one time.

We have broken down these items into three categories: **Critical, Competitive and Comprehensive**. The critical items are ones that are critical for Williams Creek Golf Course and should be done as soon as possible. The competitive list will address how Williams Creek can compete better in the marketplace. The comprehensive list shows several components of the golf course that are getting older and will soon surpass their life cycle.

CRITICAL

The most critical thing that should be done at Williams Creek is to address the driving range. A complete renovation of the driving range can vary greatly depending on the scope of the project. Below are several costs that may be encountered.

Driving Range

	Units	Unit Cost	Total
Expand Driving Range Tee (Shaping, sod, irrigation, etc.)	1 LS	\$200,000.00	\$200,000.00
Define Targets (Shaping and sod)	1 LS	\$50,000.00	\$75,000.00
Driving Range Floor (drainage, smooth, irrigation modifications, and sod)	1 LS	\$150,000.00	\$225,000.00
			\$500,000.00

*Netting is not included in the estimate due to a number of unknown factors.

COMPETITIVE

In order to stay ahead in this competitive market Williams Creek should address these primary items.

Wee Course

	Units	Unit Cost	Total
New Green Complexes (shaping, drainage, grassing, etc.)	3 EA	\$90,000.00	\$270,000.00
Grading & Drainage	1 EA	\$50,000.00	\$50,000.00
New irrigation	3 AC	\$27,000.00	\$81,000.00
Grassing	3 AC	\$25,000.00	\$75,000.00
			\$476,000.00

COMPREHENSIVE

The 2 items listed below are the two big ticket items that will need to be replaced in the next 10-15 years. The estimates reflect today's figures and an inflation factor should be added to each in order for proper planning.

Greens Renovation (Core Out)

	Units	Unit Cost	Total
Contractor Mobilization	1 LS	\$50,000.00	\$50,000.00
Kill Turf, Remove Greenmix, Drainage & Pea Gravel	108,000 SF	\$0.75	\$81,000.00
New Greens Drainage			
1. 4" Perforated Pipe	10,800 LF	\$12.00	\$129,600.00
2. Vents/Cleanouts/Markers	80 EA	\$75.00	\$6,000.00
USGA Greens Construction			
1. 12" Greensmix	108,000 SF	\$3.50	\$378,000.00
2. 4" Pea Gravel	108,000 SF	\$1.25	\$124,200.00
3. Barrier Liner (optional)	6,000 LF	\$2.00	\$12,000.00
4. Tracer Wire (optional)	6,000 LF	\$0.75	\$4,500.00
Soil Preparation – Fine debris removal, fine grade and fertilize			
1. Greens	108,000 SF	\$0.30	\$32,400.00
Grassing			
1. Greens – Seed (Bentgrass)	108,000 SF	\$0.15	\$16,200.00
			\$844,700.00

New Irrigation System

	Units	Unit Cost	Total
New Irrigation System w/ Pump Station	1 LS	\$2,000,000.00	\$2,000,000.00
			\$2,000,000.00

Comprehensive Total

\$2,844,700.00

Alternative Non-Golf Ideas

A great idea came up during the meeting at the golf course from JJ Keegan. The idea of adding a concert pavilion to draw in more people from the area would be a huge benefit not only to Williams Creek, but also to the surrounding community.

After being onsite and analyzing the property one location stood out for this area. The area is directly behind the clubhouse and putting green and in between the driving range and first hole. The diagram below shows the general location.

