

Knoxville Municipal Golf Course

Golf Course Assessment – June 2023

Prepared By: Trey Kemp, ASGCA



Table of Contents

l.	Foreward 2
II.	Golf Course
	General Overview
	Greens
	Tees
	Fairways
	Cart Paths
	Hazards
	Drainage
	Practice Facilities
III.	Hole by Hole Analysis11
IV.	Summary
V.	Estimate of Probable Cost
VI.	Alternative Options

Forward

Trey Kemp, ASGCA has been retained by JJKeegan+ to provide a golf course assessment for Knoxville Municipal 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:

Justin Smedley, General Manager – Knoxville Municipal Golf Course Brent Maples, Superintendent – Knoxville Municipal Golf Course Trey Kemp, ASGCA, Golf Course Architect – Kemp Golf Course Design

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

1. General Items

a. Aesthetics

The combination of mature trees and the rolling topography make for a nice setting to play golf. The natural areas around the golf course also give it another layer and have a beautiful contrast.

b. Playability

For the most part Knoxville Municipal is a very playable golf course. While most holes are very playable for the average golfer there are a few holes that are very difficult and/or tricky like the 4th hole and the extremely tight 14th hole. These are a few areas that should be looked at to be made more playable and enjoyable for the average golfer.

c. Maintainability

Once again, those items which make the course so visually appealing do make the maintenance more difficult. Trees are in need of removal, trimming and/or under brushing to widen a few corridors. The lack of irrigation makes it really tough on Brent Maples, the golf course superintendent and his staff, but even without a full irrigation system the keep the course looking good.

d. Security/Vandalism

On my visit, I did not notice any security or vandalism concerns. The fence that was just installed behind the 11th green is a nice touch and provides a nice barrier from the homes without looking intrusive.

Schaad Road is scheduled to be widened in the near future, which will lead to more traffic going by the golf course. At that time, it may be a good idea to look into an entry gate into the facility.

2. Greens

a. Size

Based on measurements taken from an October 2022 aerial, the total square footage for greens on the golf course is approximately 70,000 square feet including the putting green, which equates to an average of 3,740 square feet per green on the course. The practice putting green is 2,730 square feet. The size of the greens on the course are extremely small as compared to other courses which do around 30,000 per year. Ideally, the greens would average at least 5,000-5,5000 square feet per green. The rule of thumb for the practice putting green is to have it be at least twice the size of your average green, which would currently be 7,480 square feet, however it is almost 5,000 square feet below that number.

b. Grass Condition

At the time of this assessment, the bentgrass greens were in wonderful shape. Kudos should be given to the superintendent, Brent Maples, for having them in such good shape. I visited 4 public golf courses and 1 private course on my visit to Knoxville. These were in the best shape of any of them.



c. General Character

The greens at the course are extremely small and, in turn, that leads to them not having a lot of character. They all have a similar appearance with a round or oval shape.

d. Contour Analysis

For the most part, the greens at Knoxville Municipal have subtle contours. There are, however, a few holes where the contours are too severe, like the 9th and 13th holes. Those greens should be softened if/when the greens are redone.

3. Tees

a. Size

As with the greens, the surface area on the tees is too small for the amount of play and that should be one of the first things to address. In some instances, the tees could be combined to make them larger and in other instances new tees should be added.

b. Turf Condition

At the time of this assessment, the turf on the tees was struggling to come in, especially from the White Tees where the majority of play is from. There are several reasons that has occurred. First of all, many of the golf courses in the area have suffered from a harsh winter and winterkill has been a major problem. The second reason is the lack of irrigation for the tees, and the final reason is the size of the tees. The tees get beat up all winter while the grass is dormant and when the growing season starts there is not much grass left to grow.



4. Fairways

a. Character

Although fairly narrow, the fairways do have a nice rolling character to them. There are a few holes where the slopes are very severe and hard to hold, holes 14 and 16 are good examples of this and are a few of the areas that need to be looked at in order to make the golf course more playable.

b. Turf Condition

At the time of this assessment, the turf on the fairways was in good shape despite not having an irrigation system to irrigate them. The maintenance staff has done a nice job of hand watering the fairways to keep them playable. One area that really shows signs of stress are along the edges of the fairway and between the fairway and cart path. Those areas do not have much turf and need an irrigation system to get turf established and to keep it growing.

5. Hazards

a. Sand Bunkers

Knoxville Municipal Golf Course does not have any sand bunkers.

b. Water

Water in the form of a creek and two ponds are prominent features of the course near the clubhouse. Water comes into play on the 1st,10th, and 18th holes.

c. Rough

The rough at Knoxville Municipal could be improved, especially in the area where carts get off the cart path and drive to into the fairway. These areas need an irrigation system in order to improve.

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. The course has removed some trees over time and where it has been done, the turf quality and playability of the golf course has improved. For example, the area between holes 10 and 18. Under brushing in several areas is another maintenance practice which will help appearance of the course as well as improve the pace of play. This may not be possible with the current lack of staff on the maintenance crew.

6. Cart Paths

a. Impact on the Course

The cart path was redone 8 years ago and, and is visible from each teeing area. For the most part they seem to be laid out well and do not encroach into the playing corridors.

b. Condition

For the most part the cart paths are in good shape after being redone about 8 years ago. A lot of the old asphalt cart path was left next to the newly paved path. This has caused some major issues with erosion next to the cart path because grass can't grow and cart traffic keeps wearing it out. One option to correct this would be to come back in and add more asphalt in some areas, especially around tees and greens. This would reduce the maintenance in these areas, look better, and be more functional for cart traffic.



7. Drainage

a. Flood Issues

As with many golf courses, Knoxville Municipal was constructed within a flood prone area. Designed as a recreational amenity to increase the value of surrounding development, parts of the golf course also serve as a detention basin and silt catchment for a major watershed. These areas include holes 1, 2, 10, and 18.

b. Silt

Along with flooding issues come the problem of siltation. The main irrigation pond is tied into the creek. This, along with the location being in an area prone to flooding has silted in the ponds. In the near future the ponds should be dredged to maximize the depth to increase capacity for the irrigation system.

c. Adjacent Land

The majority of the land adjacent to the course has been developed which helps to eliminate any off site siltation issues. The northwest side of the property is bordered by a larger utility easement so development will not occur in this area.

d. On Course Drainage

Overall, the golf course drainage is good, but there are areas that could be improved. These areas will be identified in the hole-by-hole analysis.

8. Irrigation

a. Irrigation System

It is very rare today to see a golf course without a full irrigation system. The lack of irrigation makes it very difficult and almost impossible for the maintenance staff to keep the golf course playable and competitive with other courses in the area. Knoxville Municipal is lucky to have the superintendent they have, the work he and his staff are doing out there is truly remarkable.

With all this being said a completely new irrigation system is critical.

b. Pump

The current pump is original to the golf course, meaning it is almost 40 years old. Most pumps and pump stations have a life span of 15-20 years so this one has outlived its life.

The pump shown to the right, is showing signs of deterioration and has been in need of more and more repairs to keep it going. If the pump goes out it could be catastrophic for the course because of the lead time to get a new pump could be 2-3 months. If that happens in the summer all of the turf will burn up and the greens will be lost resulting in the golf course being shut down to regrass.

Replacing the pump is the most critical item at the golf course. I recommend replacing it as soon as possible to avoid major issues in the future.



9. Practice Facilities

a. Putting Green

With approximately 2,730 square feet, the practice putting green is too small for anything other than rolling a few putts before the round. This green should be enlarged to over 10,000 square feet in size to accommodate more play, golfers coming out to just practice, and events.

b. Short Game Area

There is a makeshift short game area to the right of the parking lot, but since the golf has no driving range. A short game area with several greens would be a welcome amenity.

c. Practice Range

Knoxville Municipal does not have a driving range.

10. Golf Course – Expected Life Cycle

The following chart shows the expected life cycle of the different components of the golf course. Knoxville Municipal was built in 1984 so the course is almost 40 years old. In most cases, items have gone past the expected life cycle.

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 Irrigation Control System Pump Station	10 – 30 years 10 – 15 years 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

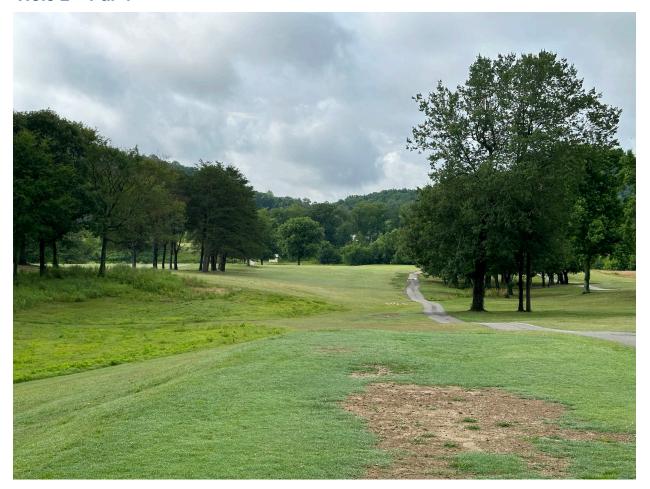
Hole 1 - Par 5



BLUE	525
WHITE	502
GOLD	482
RED	369

- Municipal golfers are greeted with a great view down the fairway stepping on the 1st tee. As you can see in the picture above, the fairway is pretty narrow, especially for the first shot of the day and no range to warmup. One option would be to clear out a row of trees on the right side of the hole to make the landing area wider, providing more options.
- The above recommendations would only work if an irrigation system was installed to maintain the extra turf.
- The green on this hole is only 3,370 square feet, so enlarging it would be advised when/if the greens get rebuilt.

Hole 2 - Par 4



BLUE	430
WHITE	381
GOLD	291
RED	245

- The back tee on hole 2 has been abandoned due to the amount of shade which makes it near impossible to grow grass.
- Since the back tee is out of play all other tees should be enlarged to help handle the wear and tear.
- The green on hole 2 backs up to the creek. Once Schaad Road is widened and a proposed 48" drainage line is installed into the creek the area maybe more prone to flooding. With this being the case the green should either be shifted away from the creek or built up several feet in order to keep it out of the flood waters. This should be done if/when the greens get rebuilt.

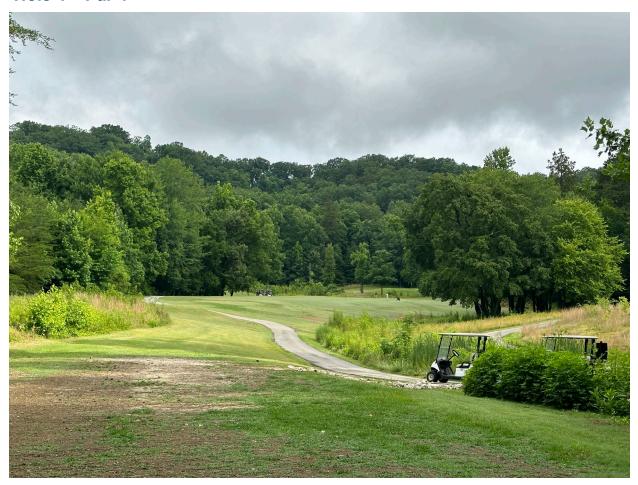
Hole 3 - Par 4



BLUE	398
WHITE	381
GOLD	291
RED	245

- The 3rd hole has a very nice look from the tee, due to the surroundings and the addition of a natural area between the white and gold tees. This adds another layer to the golf course and when used in out of play areas add a tremendous amount of character to the course and also reduce maintenance once established.
- The teeing area for the Blue and White tees should be enlarged.
- The green on this hole is very small at 2,690 square feet. It should be expanded to accommodate the amount of play the golf course receives.

Hole 4 - Par 4



BLUE	324
WHITE	314
GOLD	216
RED	210

- The 4th hole is one of the more unique holes in the Knoxville area. The 90-degree dogleg makes the golfer need a precision tee shot in order to have a shot at the green.
- The trees around the back tee should be limbed up to allow for sunlight.
- The Blue tee needs to be prepped and resodded.
- Tree trimming and select tree removal at the bend of the dogleg is recommended to make the golf hole more playable for the average golfer.
- The 3,230 square foot green sits atop a hill and balls that land short roll all the way back down into the rough or under the trees. One idea here would be to lower the green by cutting into the hill making the approach shots more playable for the average golfer.

Hole 5 - Par 3



BLUE	133
WHITE	110
GOLD	104
RED	88

- The 5th hole is a fun downhill par 3.
- The major issue here is the amount of tee space. The front 3 tees should be reshaped and all made into 1 large tee to maximize the space.
- The blue tee is up the hill slightly and does not get much sunlight making the turf tough to grow. Removing several trees and limbing up several others would help the situation.
- The natural area in front of the tees should be lowered in order to view the green.
- The green is the smallest on the course measuring 2,070 square feet. Enlarging this green would be a good idea for playability, strategy, and for the maintenance of the green.

Hole 6 - Par 4



BLUE	395
WHITE	370
GOLD	310
RED	290

- The 6th hole at Knoxville Municipal a is good, medium length par 4.
 As with most of the other holes it lacks tee space. The recommendation here would be to combine the blue and white tees to create more room.
- Subsurface drainage needs to be added in front of the red tee, this drainage will connect with new drainage on hole 8.
- The green is one of the largest on the course measuring 4,200 square feet. If/when greens get renovated this green should be expanded to provide more pin placement.

Hole 7 - Par 3



BLUE	140
WHITE	127
GOLD	110
RED	83

- Hole 7 is another nice par 3, but like the last par 3 there needs to be more tee space to accommodate the amount of play.
- One idea is to reshape and combine the blue, white, and gold tees with the back tee on hole 13 to create more tee space. This would create more variety and allow the staff to set up the course differently day to day.
- The green here is the largest on the course at 4,210 square feet.

Hole 8 - Par 4



BLUE	338
WHITE	277
GOLD	245
RED	240

- The 8th hole has nice rolling topography that adds to the character of the hole. With this being a short par 4, the tees get beat up. The recommendation here would be to combine the tees to provide more space.
- Subsurface drainage needs to be added to the 2nd valley close to the green. This drainage will tie into the drainage on hole 6.
- The green is small at 2,760 square feet and it should be enlarged.
- When/if the green gets enlarged there should be some tree trimming and select tree removal done up around the green to prevent a shade issue.

Hole 9 - Par 5



BLUE	525
WHITE	495
GOLD	425
RED	425

- The 9th hole is a great risk/reward par 5.
- The back tee has been abandoned due to the amount of shade and for safety reasons. The traffic from hole 1 has to pass directly in front of this tee to get over to hole 2.
- Work to expand and level the gold tee is being done now.
- Studying the location of the red tees throughout the course should be done, but on this hole in particular it should be moved up at least 75-100 yards. With the forced carry up by the green this is a very difficult hole for the golfers who play from this tee.
- The green is 2,935 square feet and is very severe. It is recommended that the green be enlarged and softened to accept approach shots coming in from across the water.

Hole 10 - Par 3



BLUE	130
WHITE	127
GOLD	118
RED	109

- The 10th hole might be the most beautiful on the course, but the golfer can't see it from part of the tee.
- It is recommended to start over on the tees, reshape and level them to make one large tee and possibly a new blue tee back and to the left from its current location.
- The green is only 2,845 square feet and should be expanded out to the three mounds that surround it. This would add interest and strategy to the hole.
- The contour mowing around the green looks and plays really well on this hole and should be incorporated into other green complexes on the course, if possible.

Hole 11 - Par 4



BLUE	350
WHITE	340
GOLD	299
RED	275

- The 11th is a nice par 4, but like most other holes the tee space needs to be enlarged. The back two tees could easily be combined to add more space.
- The green is 3,855 square feet, but there is ample room to enlarge it. That would create more variety and also help to spread wear on the greens.
- The addition of the split rail fence behind the green looks great and that treatment should be used in other locations as needed.

Hole 12 - Par 4



BLUE	390
WHITE	345
GOLD	330
RED	304

- The 12th is good looking hole that plays along the property line.
- The back tees could be combined to add more square footage.
- This is one hole where the location of the cart path feels out of place. If funds are ever available, it would really open up the hole if the path was shifted to the right.
- A drainage line runs across the fairway and it appears that the ground above it has sunk. Reshaping this area to smooth it out would be helpful.
- The green is only 2,720 square feet and it has a deck in the middle of it effectively making the green a lot smaller. When greens are redone this green should be enlarged and softened.

Hole 13 - Par 5



BLUE	470
WHITE	460
GOLD	430
RED	403

- The 13th is a reachable par 5 for the golfers who play the blue tees. The gold tees are only 40 yards ahead of the bule making it difficult for those golfers to reach in two. The gold and red tees should be move down the fairway another 40-50 yards to afford these golfers the same opportunity the better golfers have.
- The back tee as stated on the hole 7 recommendations should be combined to provide more variety.
- There is an area on the right side of the hole next to the cart path that has settled and it should be addressed.
- The green here is 4,075 and has a lot of slope from right to left. It should be softened during a greens renovation.

Hole 14 – Par 4



BLUE	305
WHITE	285
GOLD	260
RED	240

- The Blue and White tees on hole 14 have been abandoned due to trees that have grown up, which works well because this fairway is narrow and slopes severely from left to right.
- The other holes the tee space needs to be enlarged.
- The trees left of the tee should also be trimmed or removed before they get to large.
- The main recommendation on this hole is to remove 6 8 trees right of the green to create a bail out area. The balls already feed into this area even after a good shot, so a fairway area below the green would add to the strategy and playability of the hole.
- The green is only 2,720 square feet and is another one that should be enlarged.

Hole 15 - Par 3



BLUE	175
WHITE	138
GOLD	100
RED	86

- Hole 15 is an interesting par 3. The tee shot is semi-blind playing to a green guarded by a creek in front. In my opinion the creek should be removed and subsurface drainage should replace it allowing golfers to run the ball onto the green instead of blindly hitting into a hazard.
- There is a damaged tree behind the green that needs to be removed for safety reasons.
- The green is 4,090 square feet and there is room to enlarge is especially after the creek or drainage area is taken underground.

Hole 16 - Par 4



BLUE	335
WHITE	317
GOLD	285
RED	270

- Hole 16 is an interesting short par 4. With the severity of the fairway there is really nothing to do other than going for the green, trying to get across the low area.
- An idea here brought up by Justin and Brent is to cut the middle of the fairway down about 4 to 6 feet and smooth it out so ball can land and stay there.
- Another idea that could add variety to the hole would be to clear out trees around the blue tee and even further back which could add 50+ yards to the hole.
- The green on 16 is 3,950 square feet could be enlarged by cutting it into the hill that it currently sits atop.

Hole 17 – Par 4



BLUE	355
WHITE	335
GOLD	320
RED	305

- The 17th is a good hole with one of the best green complexes on the golf course.
- The main issue with the hole is tee space and one could easily be added to the left of the current tees.
- Trees could also be removed behind the current blue tee to create room for a new tee making the hole play longer, which in turn would make shots into this green more fun.
- The green here is small at 2,750 square feet, but the punchbowl like setting is a nice unique element to the course. The green should be enlarged, while also keeping the punchbowl.

Hole 18 - Par 5



BLUE	490
WHITE	480
GOLD	437
RED	412

- The 18th is a true risk/reward finishing hole. This hole doglegs to the left around the 11th tee and is safety issue. Staff has made balls crossing the path over into the 11th hole out of bounds to address this potential safety issue.
- One way to possibly help this problem and to add variety to the golf hole would be to clear out trees on the left side of the hole around the bend.
- An area of concern is on the right side of the hole in the first landing area where the original contractor had a bury pit during construction.
 This area is sinking and needs to be addressed.
- The drainage across the fairway is not sufficient and needs to be addressed
- The green is 3,510 square feet and there is plenty of room for enlargement.

Summary

Knoxville Municipal Golf Course is a fun golf course that exceeded my expectations. Knowing the maintenance budget and lack of irrigation system before my visit I was not expecting much, but was pleasantly surprised that the course was in the condition it was in. The greens, while tiny, were in great shape and the rest of the course was very playable. The following list of top priorities should be addressed:

1. Pump

I can't state enough the importance of replacing the pump for the irrigation system. If the current pump fails, there is nothing the superintendent can do until a new one is put in. The current wait time for a new pump is 2-3 months and in some instances can be up to 6 months.

2. Irrigation System

While there is some irrigation around the greens, the rest of the course only has quick couplers in some areas making it difficult for the maintenance crew. A new irrigation system is needed for the golf course. After upgrading the pump, the most important item for the golf course is to add a full irrigation system.

3. Tee Expansion

The tees on all of the holes need to be expanded to accommodate the amount of play at the course. The tees should only be expanded after a new irrigation system is put in. The new irrigation system is critical for turf establishment and ongoing turf health.

4. Drainage

There are drainage issues on 8 holes on the golf course and these should be addressed to help with the maintenance of the golf course.

5. Greens Renovation/Expansion

The greens are in great shape, but they are almost 40 years old and extremely small. With the amount of play the course receives the greens should be larger to help with wear and tear and improve strategy and playability.

Estimate of Probable Cost – Knoxville Municipal 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 we fill are critical for Knoxville Municipal Golf Course and should be done as soon as possible. The competitive list will address how Knoxville Municipal 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 expected life cycle.

CRITICAL

The most critical thing that should be done at Knoxville Municipal is to address pump and Irrigation System.

Pump

	Units	Unit Cost	Total
New VFD Pump	1 LS	\$175,000.00	\$175,000.00
			\$175,000.00

Irrigation System

	Units	Unit Cost	Total
New Irrigation System (1-row)	350 Heads	\$2,500.00	\$875,000.00
			\$875,000.00

Total \$1,050,000.00

COMPETITIVE

In order to be competitive in the market Knoxville Municipal must address these primary items.

Tee Expansion & Renovation

	Units	Unit Cost	Total
Tee Renovation and Resurfacing	1 LS	\$100,000.00	\$100,000.00
New Tees or Tee Expansion	1 LS	\$200,000.00	\$200,000.00
			\$300,000.00

Drainage

	Units	Unit Cost	Total
Drainage Improvements	1 LS	\$100,000.00	\$100,000.00
			\$100,000.00

^{*}This should cover the major subsurface drainage that needs to be installed.

Total \$400,000.00

COMPREHENSIVE

The item listed below has met or and exceeded its expected life cycle and should be planned for.

Greens Renovation

	Units	Unit Cost	Total
Contractor Mobilization	1 LS	\$50,000.00	\$50,000.00
Kill Turf, Remove Greenmix, Drainage & Pea Gravel	70,000 SF	\$0.75	\$52,500.00
Reshape green and surrounds	1 LS	\$150,000.00	\$150,000.00
New Greens Drainage			
1. 4" Perforated Pipe	10,000 LF	\$12.00	\$120,000.00
2. Vents/Cleanouts/Markers	80 EA	\$75.00	\$6,000.00
USGA Greens Construction			
1. 12" Greensmix	100,000 SF	\$3.50	\$350,000.00
2. 4" Pea Gravel	100,000 SF	\$1.25	\$125,000.00
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	100,000 SF	\$0.30	\$30,000.00
2. Surrounds	3 AC	\$3,333.33	\$10,000.00
Grassing			
1. Greens – Bentgrass Seed	100,000 SF	\$0.15	\$15,000.00
2. Surrounds – Sod	3 AC	\$25,000.00	\$75,000.00
			\$1,000,000.00

Total \$1,000,000.00

Alternative Options

Along with evaluating the golf course we were tasked with coming up with alternate ideas or to think outside of the box to give the facility a new identity and to be a place that is unique in the Knoxville area. Below are some ideas that could improve the facility and, in some instances, drastically change the facility while keeping golf as the main component. These ideas below get more drastic from Idea 1 to Idea 3 and the amount of money also goes up with each option. The goal with this exercise is to show what can be done with this property vs. just keeping it the same golf course it has been for forty years.

IDEA #1

The first idea to enhance the experience on the property would be to shift the parking lot closer to the clubhouse which would leave an open space of +/- 2 acres at the front of the property for a short game practice facility or a pitch & putt course. Consideration should be made for the expansion of Schaad Road, and no new golf features should be built in that area. While the short game area would be away from the clubhouse it would help to have golf at the front door to let people driving by know that it is here. A practice area of any type would be a great addition.

IDEA #2

The second idea would be to convert the facility into a 9-hole golf course and state of the art practice facility. The driving range could fit into the area where holes 1, 9, and 2 are located. The area where hole 1 is located could be dedicated to lessons and the area where hole 2 and 9 are located would be the main driving range with a teeing area over 400 feet wide and 200 feet deep. The area where the 3rd tee is located could be turned into a short game practice area and the area of the current 9th hole and 1st tee could be turned into a large putting green or putting course. This idea is depicted in the diagram on the following page.

The golf course could be rerouted to make a fun 12-hole golf course or if it stayed the same the routing for the golf course could just be the existing back 9. Another option would be to play 9 holes in the following order:

```
Hole 1 – Current 10<sup>th</sup> hole
Hole 2 – Current 11<sup>th</sup> hole
Hole 3 – Current 12<sup>th</sup> hole
Hole 4 – Current 13<sup>th</sup> hole
Hole 5 – Current 6<sup>th</sup> hole
Hole 6 – Current 7<sup>th</sup> tee to either the current 7<sup>th</sup> green or 15<sup>th</sup> green (rotate)
Hole 7 – Current 16<sup>th</sup> hole
Hole 8 – Current 17<sup>th</sup> hole
Hole 9 – Current 18<sup>th</sup> hole
```

Practice Facility:



IDEA #3

The 3rd idea to convert the facility into a 9-hole golf course like Idea #2, but instead of a golf practice facility that area could be converted into a sports complex. This would take a lot more infrastructure and work to get over the creek to the sports complex, but once there the area where holes 1, 2 and 9 are located could be cleared, graded, and drainage added. The area on hole 3 would not be used in order to keep a buffer between the houses and the sports facility. The area for the sports facility could be up to roughly 16 acres, 1,300 feet long by 500 feet wide. The city would determine what sports fields would be a good fit for the area.

In this scenario, the golf course would be turned into 9-holes just like in Idea #2. Below is a diagram of where a sports complex (Red Line) could be located:

