

September 27, 2013

**Windmill Ridge Golf Course  
Monett, Missouri**

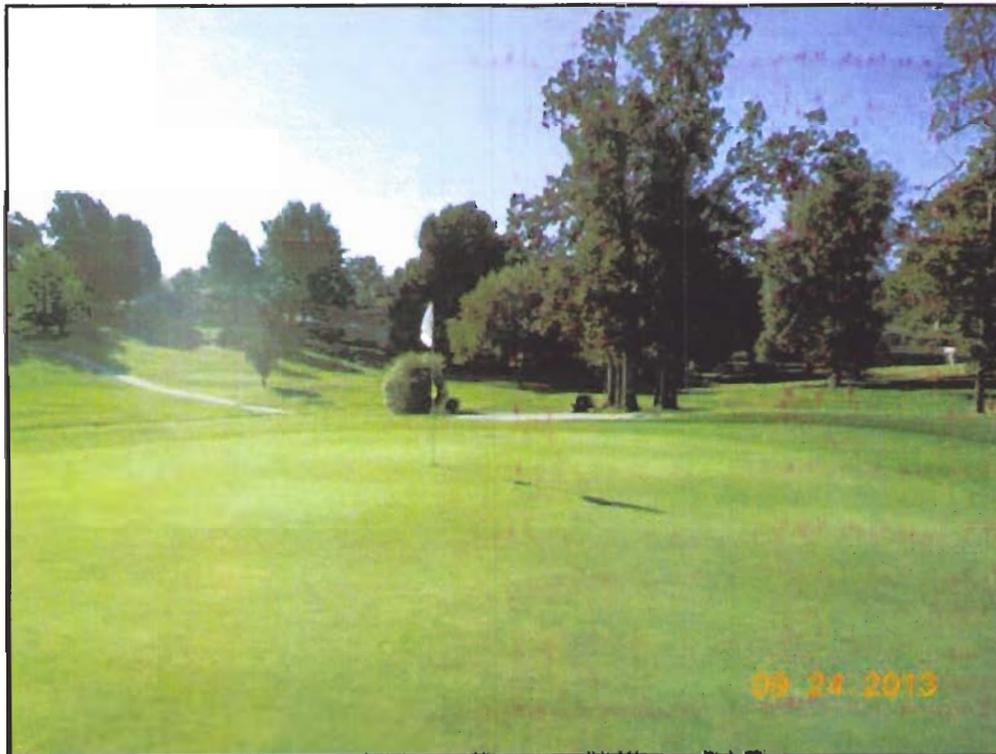
**DATE OF VISIT: September 25<sup>th</sup> and 26<sup>th</sup>**

**PERSONS PRESENT:**

Justin Beck, Golf Course Superintendent  
Michael D. Vogt, CGCS, CGIA

**Overview of Greens**

Photo 1 illustrates, perennially poor number 2 green is very good condition. This in part is due to the addition of a properly sized fan and sound management practices by superintendent Beck.

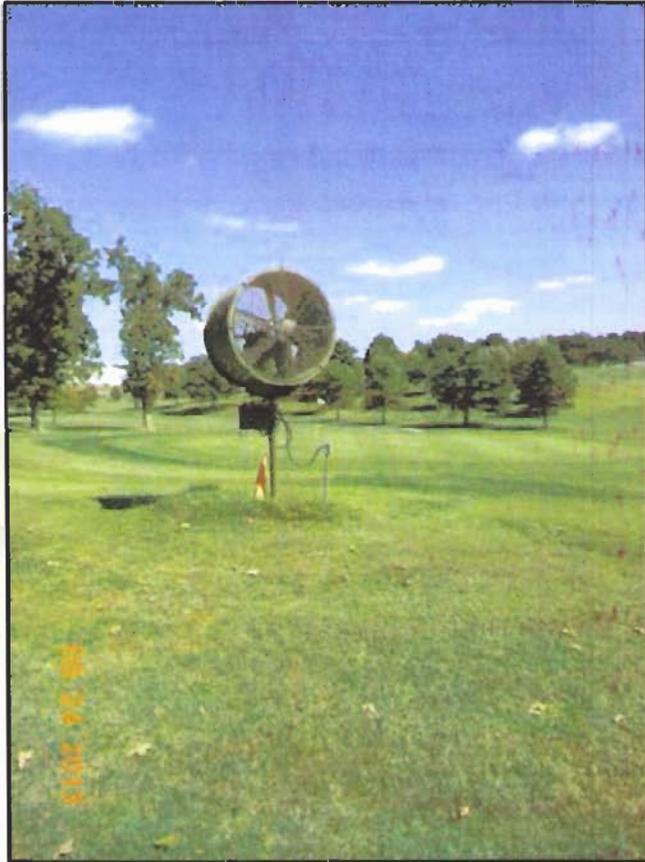


*Photo 1 Green #2*

*Overview of Greens (continued).*

Other greens that have been problems in the past have benefited for fan installation; number 6 and 11.

Years of experience along with university studies have shown that golf superintendents have the most



trouble growing bentgrass or *Poa annua* greens during the summer in areas surrounded by trees or other barriers that allow little or no air movement. A sand root-zone-type green provides a very effective base for growing putting green turf, but it cannot compensate for the lack of air circulation. In this environment, disease and higher root-zone moisture associated with these areas causes turfgrass plants to decline. Fans help improve air flow across greens, and the survival of bentgrass has been shown to improve at sites with the increased air movement provided by fans.

The positive effects of fans drying out the soil and increasing evapotranspiration are the two major benefits influencing the bentgrass. Fans offer little cooling benefit to the turfgrass, which is contrary to most popular opinion.

If fans are to be left outdoors over winter it's important to note that proper maintenance should be followed. All debris should be cleaned from fan and all grease points should be properly greased. Fan covers are available for purchase through your original

**Photo 2 Fan behind number 2 green**

manufacturer. In spring, before use, check for proper lubrication and that all bolts are tight. Inspect belts for proper tension and wear.

Fan bases and electric cable trenches should be filled and / or graded; a concrete base (4 x 4 feet) below each fan will eliminate hand trimming and help water drain away from metal fan pole.

Additional fans may be considered on 8 and 14 green.

*Overview of Greens (continued)*

Photo 3 shows a commonality of the root system that was observed during my visit. Vibrant roots growing well in the columns from aerification and venting. Continuing this deep venting and aerification is very important to turf health on greens.



*Photo 3 Common root system*

Excess accumulation of thatch in the upper two inches of the green root-zone should be mitigated by fall topdressing and perhaps a core aerification in spring 2014, followed by vertical mowing and heavy sand topdressing.

Overview of Greens (continued)



Photo 4 Bentgrass nursery / future practice green 5/14/2013

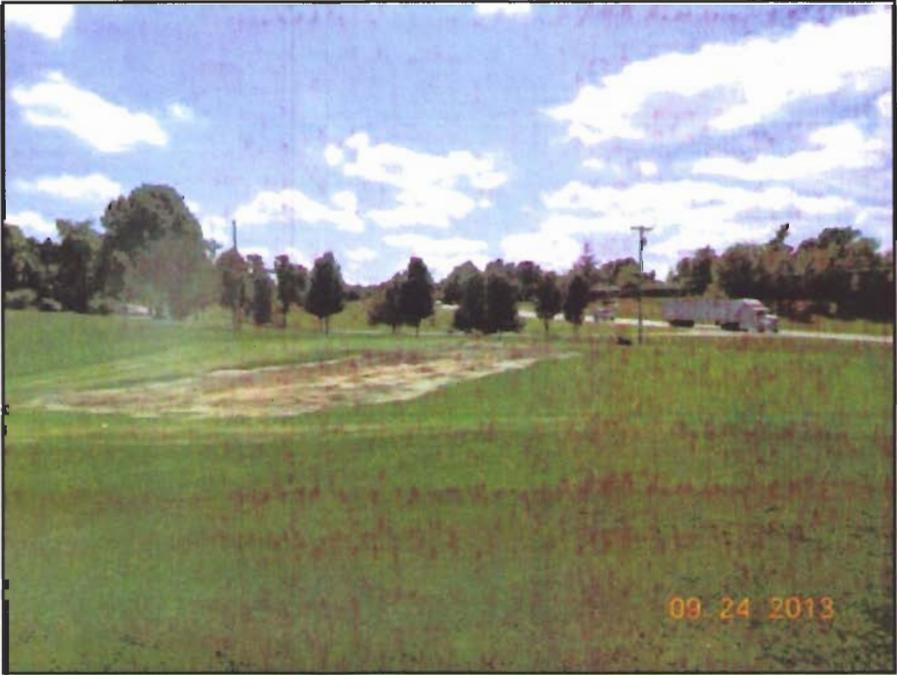


Photo 5 Bentgrass nursery / future practice green 9/24/2013

*Overview of Greens (continued)*

Photos 4 and 5 shows the bentgrass nursery / future practice green, on 5/14 and 9/24 respectively, the spring seeding due to poor weather conditions failed. The ideal time to seed this green has past. To ensure this green is sustainable and ready for use next season seeding should take place as soon as possible. Superintendent Beck mentioned he could extend the growing season with the use of specially manufactured green covers.

**Sand Bunkers**



*Photo 6 Number 12 green-side bunker*

Photo 6 shows the greenside sand bunker on 12. It has been constructed using the latest technology in bunker drainage (Better Billy Bunker). It will be a great addition to a previously poorly performing sand bunker to see just how well this sand bunker will drain and how maintenance will be lessened. The Better Billy Bunker is a new golf course bunker building technique that uses a layer of pea gravel and a liquid polymer to bind rock together. The resulting surface is solid but still porous. This allows for continuous drainage and no soil contamination during rain fall events.

*Sand Bunkers (continued)*



*Photo 7 Fairway sand bunker, number 6*

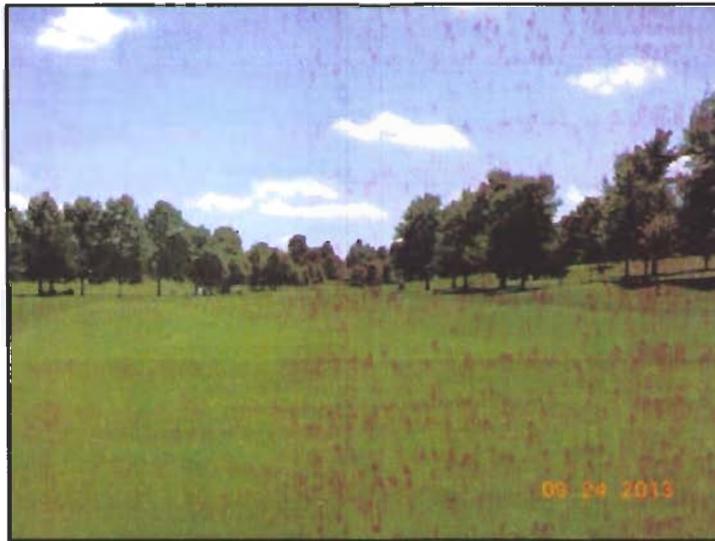
Sand bunkers remain one of the main distractors and maintenance problems on the course. Years of neglect has led to contaminated sand and over-grown edges. Renovation will need to be performed by removing the sand, determining if drainage is functioning and repair as necessary, establishing a new edge and adding new sand. This is a very costly and labor intensive project. With overall golf course conditions so vastly improved I believe this to be Windmill Ridge's biggest problem and the golf course asset that may differentiate the course for

some the finest in the area.

In my May 2013 report, I outline several more in-depth options for Windmill Ridge's sand bunker renovations and maintenance.

## Fairways

Fairways at Windmill Ridge are excellent, perhaps the best Bermuda grass fairways I have seen this year. Density has increased and weed control is very good.



*Photo 8 Number 1 fairway*

With well-timed fertilization and a solid pre-emergent weed control program, fairways will remain in great condition.



*Photo 9 Perfect Fairway lie, number 4*

*Fairways (continued)*

Consider some type of aerification during the 2014 golf season. Rotary de-compaction is fast and fairways remain very playable. A company I have used in the past is Specialty Aeration Service, (217) 652-1967. The owner, Matt Hanner, will perform rotary de-compaction, with the Verti-Quake machine, all fairways and tees for approximately \$8,000.00.

**Tees**

Tees are in good condition. Perhaps an additional fertilization in summer and aerification and vertical mowing would contribute to a more-firm surface.

**Equipment**

To accomplish any golf maintenance task, reliable course equipment is critical. Often, equipment saves labor and increases the quality of the golf playing surface.

Due to the ever-increasing costs of the specialized equipment needed to properly maintain a golf course, many operators have elected to lease high use turf equipment. The upsides to leasing are:

**Cash Management:**

- Lower monthly payments
- 100% financing
- Protect against inflation
- Preserve city capital

**Flexibility and Convenience:**

- Variety of end-of-lease options: re-lease, purchase or return
- Flexible payment schedules

**Technological Considerations:**

- Provides flexibility to upgrade as equipment needs change
- Hedges against equipment obsolescence

**Accounting and Tax Considerations:**

- Potential for "off-balance sheet" treatment
- Increased return on assets
- Lower debt load

**Capital Requirements:**

- Retain capital for alternative uses
- Bank lines remain open for short term borrowing needs
- Provides freedom from budget limitations

Newer equipment fleet will save labor and expenses involved in repairs. Currently Windmill Ridge does not employ a mechanic for repairs. If equipment breaks beyond routine fixes, a third party must be called in to make repairs. A definite upside to leasing is warranty extensions, these are common on new bulk leases, normal factory, plus a negotiated dealer extended warranty.

*Equipment (continued)*

Based on Windmill Ridge’s current maintenance fleet, I would consider the course to be in a “catch-up” position. The course could easily augment the maintenance fleet by at least \$100,000 for the next four years to assure major equipment is reliable and suited to perform the tasks. Considering your inventory and the current equipment’s age and hours, the following equipment items should be considered:

Pro Core Aerifier	\$ 40,000	Sand Bunker Rake	\$23,000
2 Tri-Plex Mower	\$ 43,000	Vertical Mower	\$19,000
2 Surrounds Mower	\$ 61,000	Reel / Bedknife Grinder	\$35,000
Rough Mower	\$ 65,000	Topdresser	\$35,000
2 Fairway Mowers	\$ 120,000	Buffalo Blower	\$18,000
3 Light Duty Utility Carts	\$7,500	Heavy Duty Utility Vehicle	\$29,000

The above list is an estimate and should not be used to compare or budget. Contact your appropriate dealer for exact pricing on particular makes and models. The most desirable equipment, for any course, will vary by makes and models and cannot be purchased from just one dealer.

I strongly advise against buying used golf course maintenance equipment, savings on the front end will often translate into poor reliability and high maintenance costs, after just several years.

<sup>1</sup>An average 18-hole golf course, in the Transition Zone of the United States, spends \$47,000 each year on equipment replacement. Lease money factors are very competitive in this economy and dealers are very aggressive, especially after the economic doldrums of the last five years.

The above list of machinery represents more than the average equipment expense mentioned above,, however, one must consider that for many years, deferred equipment replacements occurred.

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<sup>1</sup> 2012 GCSAA Capital and labor Survey, McMahan Group, Inc., Michael D. Vogt, CGCS, CGIA

Equipment (continued)

Type of Financing	Overall	Pacific	Upper West-Mountain	Southwest	North Central	Transition	Southeast	Northeast
Leased	43.9%	45.3%	40.5%	53.2%	31.3%	53.8%	58.0%	30.8%
Purchased with Cash Reserves	52.2%	64.2%	58.3%	59.7%	61.7%	42.9%	50.0%	51.5%
Purchased with Bank Financing	26.0%	15.1%	23.8%	24.2%	29.0%	37.8%	12.6%	31.4%
Purchased with a Combination of Bank Financing and Cash	19.4%	13.2%	16.7%	9.7%	24.8%	19.9%	11.5%	29.2%
Bond Issue	2.1%	2.9%	2.4%	1.6%	3.7%	1.9%	0.6%	2.3%

Table 1 Equipment finance options by region

Yearly Average	Overall	Pacific	Upper West-Mountain	Southwest	North Central	Transition	Southeast	Northeast
2010	\$45,264	\$52,758	\$35,571	\$61,313	\$33,325	\$37,677	\$53,799	\$58,912
2011	\$47,396	\$61,884	\$38,657	\$52,530	\$34,478	\$40,103	\$61,219	\$56,887
Proposed 2012	\$51,478	\$53,136	\$39,875	\$80,353	\$37,740	\$47,068	\$62,074	\$59,128

Table 2 Total capital expenses for equipment

Table 1 and 2 illustrates, from a survey conducted by McMahon Group for the Golf Course Superintendents Association of America in 2012, that leasing equipment is fast becoming more popular with courses across the country. Table 1 respondents were asked to answer all purchasing options that applied to their situation.

Table 2 shows nationwide, those golf courses overall, spend an average of approximately \$50,000 every year to augment equipment fleets. Table 2 also includes lease expenses in the per annum equipment expenses.

With all the excellent improvements made to the course on day-to-day maintenance, it would be practical to investigate replacing high use equipment or consider hiring a full time mechanic to repair equipment as needed.

<sup>2</sup> 2012 GCSAA Capital and labor Survey, Page 12, McMahon Group, Inc., Michael D. Vogt, CGCS, CGIA

<sup>3</sup> 2012 GCSAA Capital and labor Survey, Page 12, McMahon Group, Inc., Michael D. Vogt, CGCS, CGIA

## Conclusion

The overall condition of the golf course has dramatically improved. Greens have a great population, fairways are fantastic and the rough and greens surrounds are in great condition.

Soil samples should be collected this fall for test results can be used to formulate a turf nutrition program for 2014.

Small projects and repairs can now be a point of focus:

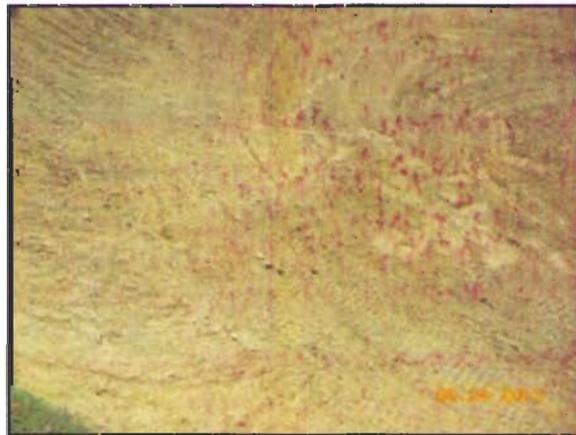


*Photo 9 Irrigation, 11 tee*



*Photo 10 Drainage, 8 approach*

And of course, sand bunkers:



*Photo 11 Gravel and contaminated sand in 12 fairway sand bunker*

Equipment fleet is beginning to become an ever-increasing reliability problem, a replacement strategy should be considered soon.

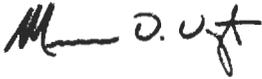
*Conclusion (continued)*

By working a plan to address these deficiencies I truly believe Windmill Ridge Golf Course could contend with other very fine courses in the area for the public's golf dollar. My hat goes off to superintendent Beck and his team for great conditioning progress.

My next scheduled visit will be during the month of April, 2014.

Any questions or comments, please feel free to contact me at your convenience, email [mvogt@mcmahongroup.com](mailto:mvogt@mcmahongroup.com) or cell number (636) 448-0699.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "M. D. Vogt". The signature is stylized with a large initial "M" and a long, sweeping underline.

Michael D. Vogt, CGCS, CGIA