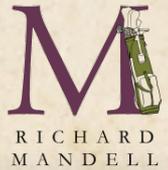




# Winston Lake Golf Course Greens



#10 Green



#13 Green



#16 Green



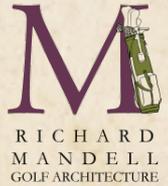
#17 Green

## Winston Lake Golf Course Greens Renovation Needs March 9, 2026

TRADITION ♦ ENJOYMENT ♦ CHARACTER ♦ PASSION



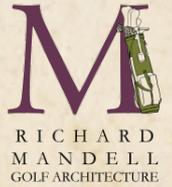
## Winston Lake Golf Course Greens Construction



- ❖ The first nine holes of Winston Lake Golf Course were built in 1956.
- ❖ The second nine holes were completed in 1964.
- ❖ The greens were built of push-up construction (Existing soil (red clay) was literally “pushed up” in place to form a putting surface and grass was planted.
- ❖ These greens have survived for 60+ years despite being composed of heavy soils that are not conducive to quality putting greens surfaces.



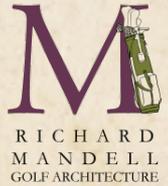
# Winston Lake Golf Course Greens Needs



1. **Air Circulation**
2. **Sunlight**
3. **Water**
4. **Drainage**



# Winston Lake Golf Course Greens Construction

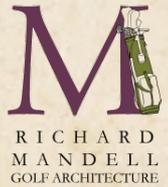


1. **Air Circulation:** Built on a completely wooded property (**lack of air**).
2. **Sunlight:** Built on a completely wooded property (**lack of sunlight**).
3. **Water:** Red clay retains water (**creates poor growing conditions from the start**).
4. **Drainage:** Red clay retains water (**doesn't drain well naturally**).



# Winston Lake Golf Course

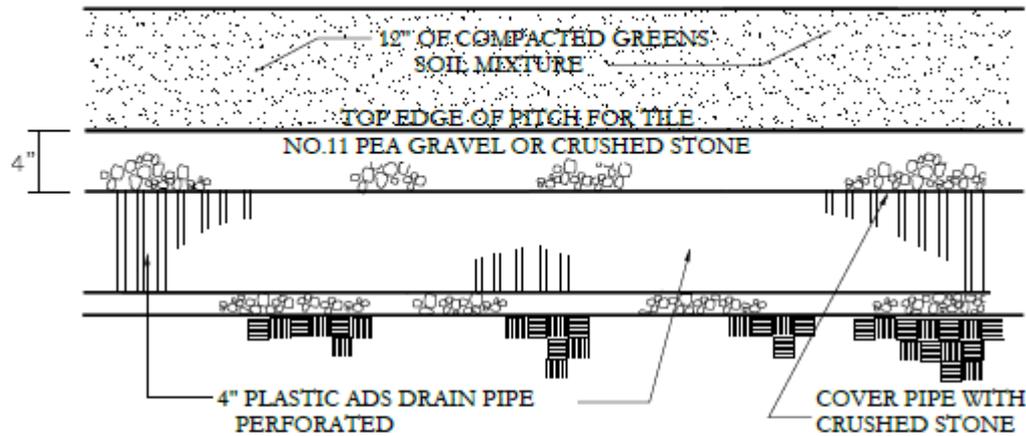
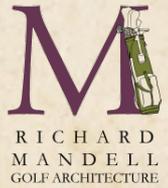
## Age of Golf Course Features



Majority of Tee Boxes:	<b>62 years</b>	<b>(15 - 20 years)</b>
Practice Range Tee Box Surface:	5 years	(5 - 10 years)
Irrigation Control System:	<b>46 years</b>	<b>(10 - 15 years)</b>
Irrigation Mainline PVC:	<b>46 years</b>	<b>(10 - 30 years)</b>
Irrigation PVC Laterals:	<b>46 years</b>	<b>(10 - 30 years)</b>
Irrigation Heads:	6 years	(10 - 15 years)
Irrigation Pump System:	17 years	(15 - 20 years)
Cart Paths	8 years	(15 - 30 years)
Sand Bunker Construction & Drainage:	<b>62 years</b>	<b>(5 - 15 years)</b>
Sand Bunker Sand:	<b>62 years</b>	<b>(5 - 15 years)</b>
Sand Bunker Liner:	<b>N/A</b>	<b>(5 - 15 years)</b>
Putting Greens:	<b>62 - 70 years</b>	<b>(15 - 30 years)</b>
Putting Green Turf:	<b>12 years</b>	<b>(15 - 30 years)</b>



# Winston Lake Golf Course Needs: Modified USGA Greens



LONGITUDINAL SECTION

TYPICAL GREEN DRAINAGE SYSTEM

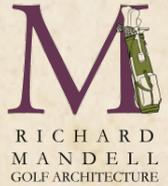
NOT TO SCALE

## Recommended Greens Construction Detail

Modern greens construction consists of **4" drain pipe** covered by **4" of gravel**, covered by **12" of greens mix** for optimal growing conditions and even distribution of irrigation and drainage.



## Winston Lake Golf Course Needs Modified USGA Greens: *Percolation Rate*



**Percolation Rate:** The rate at which water moves through the green profile (top to bottom);  
Passing through the green's mix, gravel, and drainage down to the ground.

- ❖ Properly-built greens require a percolation rate of between **10' - 20" per hour** in order to keep water from getting stuck in the green profile, resulting in grass roots sitting in wet conditions.
- ❖ When grass roots are forced to live in constantly wet conditions, they don't grow long enough to establish enough turf to provide an acceptable putting surface.

**Winston Lake Greens Percolation Rate: ~ 5" per hour.**



# Winston Lake Golf Course Greens



## Best Improvement to Date: Tree Removal



Hole #5 Before



Hole #5 After



Hole #16 Before

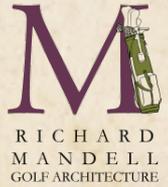


Hole #16 After

TRADITION ♦ ENJOYMENT ♦ CHARACTER ♦ PASSION



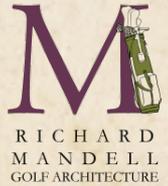
# Winston Lake Golf Course Greens Construction Progress



1. **Air Circulation:** Built on a completely wooded property (**Improved**).
2. **Sunlight:** Built on a completely wooded property (**Improved**).
3. **Water:** Red clay retains water (**Continued poor growing conditions**).
4. **Drainage:** Red clay retains water (**Still No Greens Drainage**).



# Winston Lake Golf Course Renovation Greens Construction Costs



## OPTION E: REVISED GREENS COMPLEXES ONLY

Item	Unit Cost	Unit	Quantity	Total
<b>PROJECT PREPARATION</b>				
Layout/Staking	\$ 44,000.00	LS	1.00	\$ 44,000.00
<b>CLEARING/ DEMOLITION</b>				
Spray and Rotovate Existing Turf (AC)	\$ 4,500.00	AC	17.04	\$ 76,680.00
Selective Clearing (AC)	\$ 8,250.00	AC	1.33	\$ 10,972.50
Removal of 8' Cart Path (Onsite LF)	\$ 12.50	LF	2,309.00	\$ 28,862.50
Removal of Cart Path Areas (Onsite SF)	\$ 1.56	SF	1,000.00	\$ 1,560.00
<b>EROSION CONTROL</b>				
Erosion Control (LS)	\$ 55,000.00	LS	1.00	\$ 55,000.00
<b>BULK EARTHWORK/SHAPING</b>				
Golf Course Feature Shaping	\$ 154,000.00	LS	1.00	\$ 154,000.00
Earthwork (CY)	\$ 4.13	CY	12,500.00	\$ 51,625.00
<b>DRAINAGE</b>				
4" Solid HDPE Pipe (N-12 ADS) - Green Outlets	\$ 10.98	LF	615.00	\$ 8,322.84
6" Solid HDPE Pipe (N-12 ADS)	\$ 14.00	LF	2,026.00	\$ 28,364.00
8" Solid HDPE Pipe (N-12 ADS)	\$ 17.00	LF	1,336.00	\$ 22,712.00
10" Solid HDPE Pipe (N-12 ADS)	\$ 19.05	LF	1,070.00	\$ 20,383.50
12" Solid HDPE Pipe (N-12 ADS)	\$ 23.00	LF	147.00	\$ 3,381.00
15" Solid HDPE Pipe (N-12 ADS)	\$ 37.48	LF	105.00	\$ 3,935.40
18" Solid HDPE Pipe (N-12 ADS)	\$ 44.00	LF	135.00	\$ 5,940.00
24" Solid HDPE Pipe (N-12 ADS)	\$ 64.45	LF	246.00	\$ 15,854.45
Drop Inlets	\$ 623.17	EA	46.00	\$ 28,665.91
<b>TEE CONSTRUCTION</b>				
Tee Complex Construction w/ Internal Drainage (SF)	\$ 2.48	SF	13,648.00	\$ 33,847.04
<b>GREEN CONSTRUCTION</b>				
USGA Greens Construction (SF)	\$ 8.75	SF	118,135.00	\$ 1,033,681.25
<b>IRRIGATION</b>				
Irrigation Improvements (Per Head)	\$ 2,310.00	EA	180.00	\$ 415,800.00
<b>CART PATH CONSTRUCTION</b>				
8' Concrete Cart Path Const. (LF)	\$ 53.86	LF	3,198.00	\$ 172,244.28
Concrete Staging Area	\$ 6.73	SF	1,232.00	\$ 8,291.36
<b>SEEDBED PREPARATION</b>				
Seedbed Prep (AC)	\$ 5,178.00	AC	14.36	\$ 74,356.08
Soil Amendments (AC)	\$ 1,457.17	AC	14.36	\$ 20,924.96
<b>GRASSING</b>				
Sprigging Greens with Sunday Bermuda (SF)	\$ 1.20	SF	118,135.00	\$ 141,762.00
Sod Surrounds with TriTuf Bermuda (SF)	\$ 0.77	SF	625,500.00	\$ 481,500.00
<b>SUBTOTAL</b>				<b>\$ 2,941,231.18</b>

### SOFT COSTS

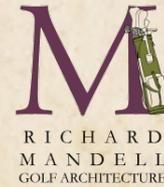
Mobilization	\$ 88,236.94	3%	1.00	\$ 88,236.94
Golf Course Design Fees/Civil Engineering/Permitting	\$ 198,000.00	LS	1.00	\$ 198,000.00
Bonding**	\$ 44,118.47	1.50%	1.00	\$ 44,118.47

### TOTAL ESTIMATED CONSTRUCTION COSTS

**\$ 3,271,586.56**



# Winston Lake Golf Course Renovation Total Construction Costs



## OPTION A: REVISED COMPLETE RENOVATION PROJECT TO ADDRESS ALL ISSUES

Item	Unit Cost	Unit	Quantity	Total
<b>PROJECT PREPARATION</b>				
Layout/Staking	\$ 82,500.00	LS	1.00	\$ 82,500.00
<b>CLEARING/DEMOLITION</b>				
Spray and Rotovate Existing Turf (AC)	\$ 4,500.00	AC	109.08	\$ 490,860.00
Selective Clearing (AC)	\$ 8,250.00	AC	7.38	\$ 60,885.00
Removal of 8' Cart Path (Onsite LF)	\$ 12.50	LF	20,382.00	\$ 254,693.47
Removal of Cart Path Areas (Onsite SF)	\$ 1.56	SF	2,684.00	\$ 4,192.41
Removal of Hardscape around Clubhouse (Onsite SF)	\$ 1.56	SF	11,893.00	\$ 18,576.87
Removal of Road (Onsite LF)	\$ 33.00	LF	1,010.00	\$ 33,330.00
<b>EROSION CONTROL</b>				
Erosion Control (LS)	\$ 220,000.00	LS	1.00	\$ 220,000.00
<b>BULK EARTHWORK/SHAPING</b>				
Golf Course Feature Shaping	\$ 275,000.00	LS	1.00	\$ 275,000.00
Earthwork (CY)	\$ 4.13	CY	50,000.00	\$ 206,250.00
<b>DRAINAGE</b>				
4" Solid HDPE Pipe (N-12 ADS) - Green Outlets	\$ 10.98	LF	758.00	\$ 8,322.84
4" Solid HDPE Pipe (N-12 ADS) - Sand Bunker Outlets	\$ 10.98	LF	180.00	\$ 1,976.40
4" Solid HDPE Pipe (N-12 ADS) - Tee Outlets	\$ 10.98	LF	8,422.00	\$ 92,473.56
4" Solid HDPE Pipe (N-12 ADS)	\$ 10.98	LF	189.00	\$ 2,075.22
6" Solid HDPE Pipe (N-12 ADS)	\$ 14.00	LF	5,608.00	\$ 78,512.00
8" Solid HDPE Pipe (N-12 ADS)	\$ 17.00	LF	4,070.00	\$ 69,190.00
10" Solid HDPE Pipe (N-12 ADS)	\$ 19.05	LF	1,955.00	\$ 37,242.75
12" Solid HDPE Pipe (N-12 ADS)	\$ 23.00	LF	1,660.00	\$ 38,180.00
15" Solid HDPE Pipe (N-12 ADS)	\$ 37.48	LF	755.00	\$ 28,295.14
18" Solid HDPE Pipe (N-12 ADS)	\$ 44.00	LF	701.00	\$ 30,844.00
24" Solid HDPE Pipe (N-12 ADS)	\$ 64.45	LF	246.00	\$ 15,854.45
Drop Inlets	\$ 623.17	EA	116.00	\$ 72,297.95
<b>TEE CONSTRUCTION</b>				
Tee Complex Construction w/ Internal Drainage (SF)	\$ 2.48	SF	121,303.00	\$ 300,224.93
Driving Range Tee 4" Perforated Pipe w/ gravel (SF)	\$ 2.48	SF	50,257.00	\$ 124,386.08
<b>GREEN CONSTRUCTION</b>				
USGA Greens Construction (SF)	\$ 8.75	SF	134,890.00	\$ 1,180,287.50
<b>SAND BUNKER CONSTRUCTION</b>				
Bunker Construction with Sod Liner (SF)	\$ 3.85	SF	5,355.00	\$ 20,616.75
<b>IRRIGATION</b>				
Irrigation System Improvements (LS)	\$ 2,603,370.00	LS	1.00	\$ 2,603,370.00
Pump Station/ Wet Well/ Intake (LS)	\$ 357,500.00	LS	1.00	\$ 357,500.00
<b>CART PATH CONSTRUCTION</b>				
8' Concrete Cart Path Const. (LF)	\$ 53.86	LF	23,580.00	\$ 1,269,924.48
Concrete Staging Area	\$ 6.73	SF	17,018.00	\$ 114,565.18

<b>SEEDBED PREPARATION</b>				
Seedbed Prep (AC)	\$ 5,178.00	AC	101.62	\$ 526,188.36
Soil Amendments (AC)	\$ 1,457.17	AC	101.62	\$ 148,077.62
<b>GRASSING</b>				
Sprigging Fairway Areas with TifTuf Bermuda (AC)	\$ 4,070.00	AC	36.50	\$ 148,555.00
Sprigging Rough Areas with TifTuf Bermuda (AC)	\$ 4,070.00	AC	32.61	\$ 132,722.70
Sprigging Tees with TifTuf Bermuda (SF)	\$ 0.30	SF	171,560.00	\$ 50,953.32
Sprigging Greens with Sunday Bermuda (SF)	\$ 1.20	SF	134,890.00	\$ 161,868.00
Sod Tee Surrounds with TifTuf Bermuda (SF)	\$ 0.77	SF	686,240.00	\$ 528,404.80
Sod Green Surrounds with TifTuf Bermuda (SF)	\$ 0.77	SF	269,780.00	\$ 207,730.60
Seed No-Mow Areas (AC)	\$ 3,300.00	AC	10.56	\$ 34,848.00
<b>MISCELLANEOUS</b>				
Bridge Removal	\$ 6,600.00	LS	4.00	\$ 26,400.00
New Bridge #1 (50' X 10')	\$ 37,180.00	LS	1.00	\$ 37,180.00
New Bridge #2 (60' X 10')	\$ 44,616.00	LS	1.00	\$ 44,616.00
New Bridge #3 (115' X 10')	\$ 85,514.00	LS	1.00	\$ 85,514.00
New Bridge #4 (40' X 10')	\$ 29,744.00	LS	1.00	\$ 29,744.00
Pairs of Bridge Abutments	\$ 9,680.00	LS	4.00	\$ 38,720.00
Driving Range Net Construction (40' Tall)	\$ 220.00	LF	1,137.00	\$ 250,140.00
<b>SUBTOTAL</b>				<b>\$ 10,544,079.36</b>
<b>SOFT COSTS</b>				
Mobilization	\$ 316,322.38	3%	1.00	\$ 316,322.38
Golf Course Design Fees/Civil Engineering/Permitting	\$ 522,500.00	1.50%	1.00	\$ 522,500.00
Bonding**	\$ 158,161.19	1.50%	1.00	\$ 158,161.19
<b>TOTAL ESTIMATED CONSTRUCTION COSTS</b>				<b>\$ 11,541,062.93</b>