#### Hole # 7 Rebuild Green or add a new Green

The Current seventh green has a slope in the front one-half of 4.2 degrees. We should have a maximum slope of 2.25 degrees for putting speeds of 11 and 2.5 degrees for putting speeds of 10 (measured using a stimpmeter, an industry standard for measuring green speeds). Slopes above 3.5 degrees render the putting surface unusable at any speed for our type of membership. Small green sizes are around 3500 sq ft., average size of a green is 6000 sq ft. and largest greens are around 9000 sq ft. Our greens run around 3400 sq ft. Greater slopes and variations of slopes (contouring) cannot be obtained and playable because of the size of the greens. Our greens are not large enough to have that much contouring because it would eliminate possible pin positions in the steeper sloped areas of the greens. Attached are charts of our greens. From the chart you can see that we are in good shape with holes 3, 5, 6 and 9. #1 front is 2.9 degrees, right is 2.5 degrees, 2 right is 3.2, 4 right is 2.8 degrees, the right middle to back is the only usable part of # 7 green and hole 8 is to steep left 2.6, right 2.8 and back 3.9 degrees. Speeds of 9.6 to 10.6 can be obtained as "marginal slopes" even on all these greens. The recommended speed on those steep slopes areas should be around 8' which to me would be terrible. The greens will be too long, too slow and too bumpy. The bumpiness is caused by the types of poa annua.

Green speeds of 8'6" to 9'4" are considered average for municipal courses. Average speeds for a course that desires exceptional greens as those of private golf courses are 9'6" to 10'6". It is recommended to stay in this range. The Major Championships like the US Open are usually 13' or above. This would be unplayable for most of our membership, while still playable for Touring Professionals. Greens this fast would require flat greens to a maximum slope of 1.75 degrees for our membership to play and enjoy. We don't have any greens with that little of slope. I will be attaching a chart of each green with the slopes to show how we stand up to what we want vs what we can have.

#### **Option 1 (sodding)**

The 7<sup>th</sup> Green contains approximately 3400 square ft. The material needed is as follows:

Perf drain pipe in 8" trenches below the pea gravel.

50 Cubic Yards of pea gravel (compacted)

21 Cubic Yards of sand

188 Cubic Yards of Topsoil with a mix of 60% sand and no more 20% clay

We can remove the current sod and replace one the green is shaped and the base materials are put into place.

# If we use Option 2

If we do decide to use option 2, it might be fun to add a new green to the left of the current green. If we did this we can get it built adding some fill from the dredging project then building to USGA or better specs. Once this green has grown in, we can use it while only lifting up the front of the old green using existing sod. We could then keep both greens. The one to the left could be used for the par 4, creating a more pronounced dogleg, while keeping the old green for the par 3.

### Option 2 (seeding)

Same as above for base materials plus:

3.5 lbs of nitrogen or

17.5 lbs of Milorganite

6 lbs of grass seed

### **Additional Projects**

I believe we should look to fixing some of the slopes on the other greens as follows:

#1. Front and Right side

#2 Right front side

#4 Right side

#8 Recontour entire green

Possible easy solution to # 1, 2 and 4 is to install bunkers to lift up those areas of the greens over time.

Jason may have some other ideas.

## **Green Slope Break in Inches 90 Degree Angle to Slope**

	3′	<b>6'</b>	9'
1 degree	4 – 6"	10 – 12"	14 – 16"
2 degrees	8 – 10"	16 – 18"	22 – 26"
3 degrees	10 – 12"	20 – 24"	40 – 46"
4 degrees	14 – 16"	38 – 42"	52 – 58"

Uphill at less than 90 degrees breaks less that downhill at the same angle.

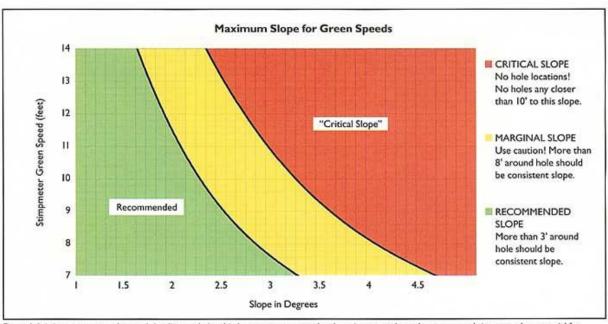


Figure 1. It is important to understand the direct relationship between green speed and putting green slope. As green speeds increase, the potential for uncontrollable slopes also increases.