



HOLE 5 REVIEW SUMMARY RYE GOLF CLUB

June 5, 2018

The following is a review of concepts which have been discussed in response to concerns raised by some neighbors in the Allendale Dr. section of Rye related to errant golf shots (generally tee shots) on Hole #5 at Rye Golf Club (RGC). This review will outline the actions already taken by RGC to update the golf hole to discourage errant shots while also listing alternative ideas for possible additional changes and their potential effectiveness and impact on the golf course. (*Note: This narrative is not intended to be a recommendation of a particular solution, but rather as a summary of various approaches for consideration.)

Work Completed to Date

To date, the following changes have been made on Hole #5 in an effort to alleviate the frequency of balls leaving the property from the tees:

- Three fairway bunkers were added at the base of the hillside on the right side of the hole. These start at about 205 yards from the back tee and are stacked up the hill to 215 yards. The purpose of the bunkers is to encourage golfers to aim further left and away from the property line.
- The hillside immediately behind (north and east) the bunkers was also planted with a fine fescue (12" – 15" mature height) to further encourage golfers to aim away from the area and more towards the interior of the course.
- Numerous trees were cleared along the left side of the hole, both adjacent to the tees and along the fairway, to open up the playing corridor on the left. The fairway was also expanded on the left while the right side was pulled away from the property line, furthering the effort to encourage golfers to aim left.

The results of the above efforts have seemingly reduced the number of balls leaving the property but have not eliminated the problem. Studies indicate that errant golf shots can deviate from the intended center line of play by as much as 15-degrees or more. That can mean a distance of around 65 yards (195 ft) offline on a drive hit 210+ yds. Even with the adjustment of the golf hole as described above, the houses along Hole #5 are still within 50 yards (150 ft) of the intended centerline of play, well within this 15-degree dispersion area. Thus, realignment has not been wholly effective.

Alternative Option #1

One option for further discouraging balls from leaving the property is to install netting parallel to the property line along the affected area. Any netting installed in this location will help to deter some shots from leaving the property, but the higher the netting the more effective it will be against more shot types.

Swing speed and trajectory studies indicate that amateur golfers' swing speeds generally vary from 65 mph to 115 mph depending on a golfer's strength, skill and technique. Given this range of ability, the type of shots played by golfers also vary greatly in distance, trajectory (height) and direction. A golfer with a 65 mph swing speed will hit (carry) a driver around 120 yds with a maximum trajectory of around 30 ft (which occurs at about 70 yds out). In contrast, a 115 mph swing with a driver will carry around

270 yds with a max trajectory of around 85 ft (which occurs at about 180 yds out). Most golfers fall somewhere between these two limits.

On Hole #5 at RGC, the reported problem area where balls are leaving the property occurs between 150 and 200 yds from the tee, which is where this maximum trajectory (of the faster swing speeds) is generally achieved. The teeing areas on Hole #5 also sit approximately 45 ft **above** the elevation of the fairway, thus the trajectory of shots is somewhat compounded. To provide maximum protection from all swing speeds, a net placed in this location would have to be around 120 ft – 130 ft tall (85 ft trajectory **plus** 45 ft tee height). That said, the vast majority of players at RGC do not generate these higher swing speeds, thus shorter netting could still have a significant impact on stopping a good majority of balls from leaving the property. Even netting of 50 ft to 60 ft in height would be reasonably effective in comparison to no netting at all.

- Pros**
- Most effective method of addressing all potential ball flights and trajectories, though netting companies will generally not guarantee 100% containment
 - Minimal (or no) physical changes required to the golf hole

- Cons**
- Considerable cost for netting of the described height and length
 - Obstructed view of golf course from the housing, and unsightly view of net in general
 - Long-term maintenance expense to keep net in good working condition

Alternative Option #2

Provide netting at heights as described above, but install in a series of panels staggered perpendicularly along the property line in the affected areas.

- Pros**
- Allows for views between the nets from the housing, where only the poles obstruct views
 - Still an effective method of addressing all potential ball flights and trajectories, though does allow some gaps in between nets
 - Minimal (or no) physical changes required to the golf hole

- Cons**
- Nets placed perpendicularly will protrude into the golf course thus effectively narrowing the corridor of the hole and creating difficult rules decisions (and playability) for balls that come to rest between and/or behind the nets
 - Perpendicular layout still allows some gaps between net panels
 - Considerable cost for netting of the prescribed height and length
 - Poles, and some netting depending on viewing angle, still obstruct views from housing
 - Long-term maintenance expense to keep net in good working condition

Alternative Option #3

Provide netting parallel to the property line as described in Option #1, but lower the tees 20 ft to allow for shorter nets.

- Pros**
- Allows for shorter nets, reduces cost

- Cons**
- Given evidence of sub-surface bedrock at the tee locations, it is unknown if the tees could even be lowered to the extent described. It is assumed that to lower the tees at all from their current elevation (in current location) will require considerable rock removal and great expense

- Still a considerable cost for netting of the described height and length
- Obstructed view of golf course from the housing, and unsightly view of net in general
- Long-term maintenance expense to keep net in good working condition

Alternative Option #4

In lieu of netting, install mature trees along the property border in the area of concern.

- Pros**
- Would provide some degree of protection
 - Would be more aesthetically pleasing than netting from both golf course and housing views
 - Minimal (or no) physical changes required to the golf hole
- Cons**
- Extremely expensive to relocate trees of significant size (\$50,000 or more per tree) with no guarantee that they survive the "relocation". Due to the low-lying, wet nature of the area, ground vehicles may not be able to be used for transporting which would require use of a helicopter or other means which compounds the price to install.
 - Mature height of trees still below the effective trajectory of many shot types
 - Golf balls can also get through the voids in trees, thus no guarantee of containment

Alternative Option #5

Require players to use "irons only" from the existing tees.

- Pros**
- Reduced trajectories and dispersion of balls with shorter clubs (irons)
 - Minimal (or no) physical changes required to the golf hole
- Cons**
- Hole #5 is a long, difficult, uphill hole. Requiring irons from the tee makes the hole even longer and more difficult, especially for players of lesser ability who often struggle to hit long irons with any consistency
 - Rule will be very difficult to enforce without full time supervision/management by RGC staff
 - Use of irons does not eliminate dispersion and potential of balls leaving site, but may just move the problem to a different location

Alternative Option #6

Rebuild the back teeing areas moving them forward (and down the hill) and toward the property line while aligning them to hit away from the houses and more towards the interior of the course.

- Pros**
- Pushing tees forward and to the right allows them to be lowered and positioned nearer existing mature trees that could be more effective at knocking down mishit shots
 - Tee alignment aiming to the left directs golfers away from houses
- Cons**
- Relocation of tees as described may reduce the frequency, but does not guarantee elimination of errant shots leaving the property
 - Aiming tees further to the left compounds existing safety issues with golfers in the adjacent fairway on Hole #4
 - Pushing tees forward effectively moves problem area (at 150 yds to 200 yds from tee) further down the hole potentially impacting other properties and also shortens overall course yardage
 - Pushing tees forward also moves primary fairway landing area for the hole to the existing hillside. The hillside presents problems for the following reasons:
 - If hill is cut short as fairway it is likely that balls will not stay in place after landing and

- will roll back down the hill, greatly diminishing the effective distance of the drive
- If hill is left long as rough the ball may stay in place after landing but golfers will be penalized by having to hit from tall grass and a steeply canted lie
- Rebuilding the tees will require considerable expense, including tee construction, irrigation relocation, carpath adjustments
- Potential bedrock removal in order to build tees

Alternative Option #7

Move tees to the base of the existing hill and change the hole to a 200-yard (+/-) par 3

- Pros**
- Alleviates current problem with houses
 - Breaks up the six consecutive par 4 holes (4 through 9)
- Cons**
- Creates an uphill, blind par 3 hole (with potential safety and pace of play issues)
 - Drastically reduces the overall length and par of the golf course, which is already short by modern standards
 - Changes an original hole from the Devereux Emmet routing, which is still largely intact and a factor in the marketing of the facility
 - Still puts driver in a lot of players' hands, which has the greatest degree of dispersion, and thus brings houses into play further down the hole

Alternative Option #8

Realign tees to the left (west) toward Hole #4 green and continue to remove trees between Holes 4/5

- Pros**
- Pulls first half of golf hole away from housing overall
- Cons**
- Actually aims the tee shot to the northeast and more towards the housing rather than away from it (and still requires netting)
 - Requires removal of considerable quantity of mature trees
 - Creates potential safety issues with Hole #4 and #5

Alternative Option #9

Flip routing of Hole #4 and #5 so that #4 plays north to south along the east property border (using #5 corridor) and Hole #5 plays south to north (in the location of existing #4).

- Pros**
- Puts the housing on the "hook" side of the hole where studies show that the angle of dispersion for mishits is less (12-degrees vs. 15-degrees)
 - Makes transition from Hole #4 to #5 and Hole #5 to #6 shorter and more fluid
- Cons**
- While balls tend to be mishit less (and with less dispersion) on the "hook" side of the center line, there is still great potential for balls to leave the site and hit other housing (for comparison look at Hole #2 and Hole #7)
 - Tremendous potential expense to rebuild the holes without guarantee of solving problem
 - Unknown if green can even be built in location of current Hole #5 tees given existing bedrock