

Some Analysis of the Scores from
The Majestic 2020 at Blue Ribbon Pines

by

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Focus of Analysis

Because the main feature of this event was the Open competition, the main job of the course was to sort players who are contenders. The lowest rating a player should have to truly compete in Open is 970. Above 1020, there aren't enough players in the world to generate good statistics. So, the focus of this paper will be how to set up the course for players rated 970-1020. This paper will also look at how the holes performed for the entire field.

The scorecard with a map of the layout is on the last page.

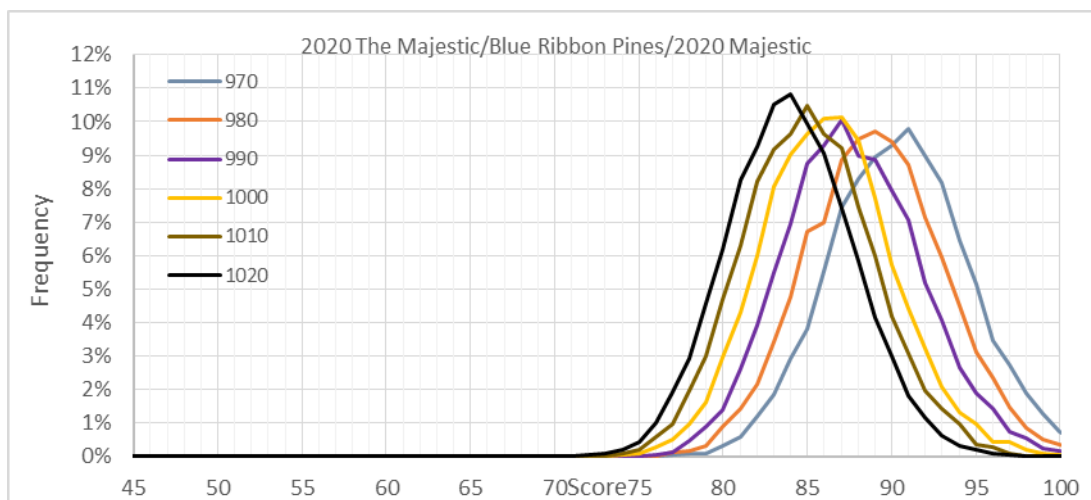
Ability to Sort 970-1020 Rated Players

By computing the scoring distributions of six synthetic players, then running simulations based on those scoring distributions, we can count how often the course would give a better score to the higher rated player.

BRP would give the better score to the higher rated player 67% of the time. That is, out of the 30 pairwise opportunities to give out a better score (980 vs 970, 1020 vs 1000, etc.) it averaged about 20 successes. This 67% figure is below (worse than) the median among 40 or so courses analyzed from other big events.

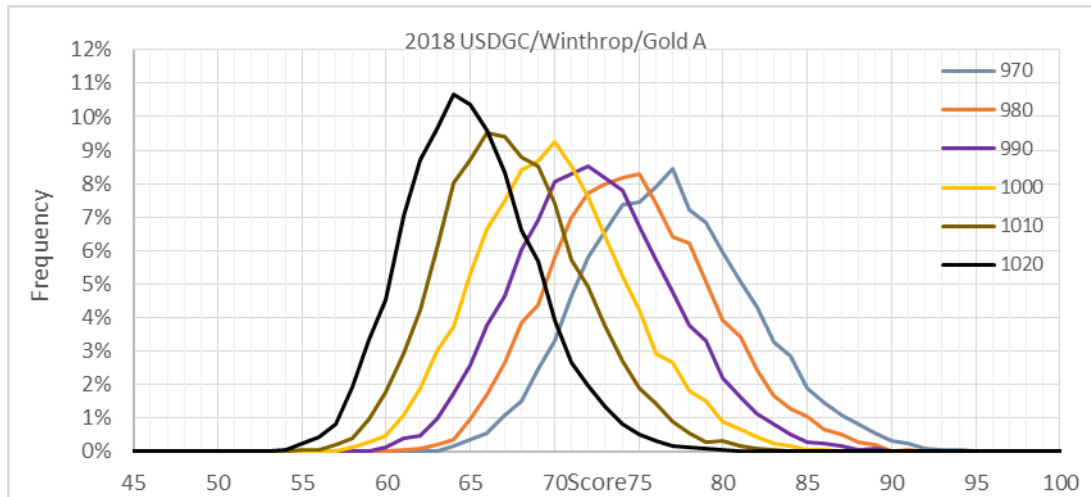
Another way to look at this is to see the distributions of total scores generated by the simulations.

Here is BRP:

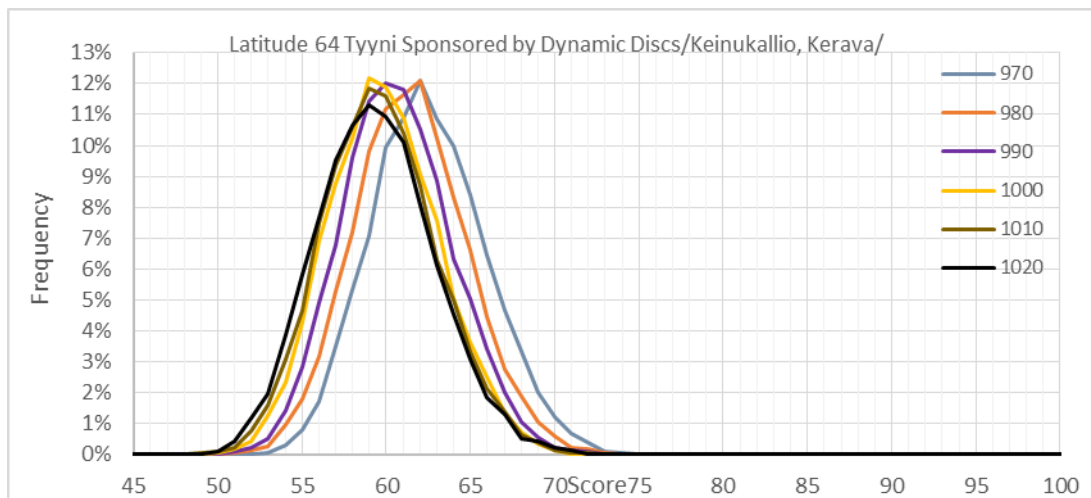


What is important is how much difference (space left to right) there is between the distributions.

For comparison, the course with the widest spacing is Winthrop which would sort the players correctly 76% of the time.



The course with the smallest spacing is Tyyni which would sort the players correctly 58% of the time.



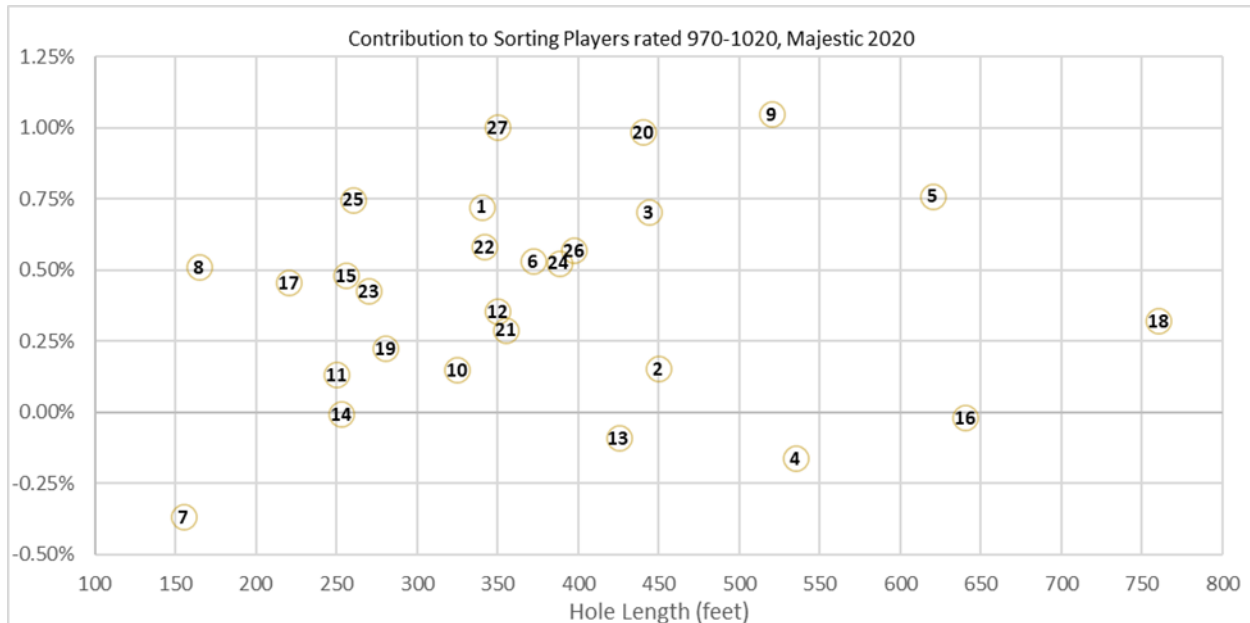
Because BRP is 27 holes, perhaps it isn't fair to compare it directly to 18-hole courses. The extra 9 holes and higher scores should give it an edge. So I looked at all the 18-hole selections from those 27 holes.

- ✦ If the least effective 18 holes were their own course, they would sort players correctly 59% of the time, which is near the bottom of all courses studied.
- ✦ If the most effective 18 holes were their own course, they would sort players correctly 67% of the time - as good as all 27 holes together.

Individual Hole Contributions to Ability to Sort 970-1020 Rated Players

We can calculate the contribution of each hole. This is done by seeing how the ability to sort 970-1020 rated players changes when that hole is included vs. when it is excluded.

Here are the results for BRP:



The vertical axis shows how much the hole helped the course sort players. Higher up means the hole did a better job. Below zero means the course would have been better at sorting 970-1020 rated players if the scores from that hole had been disregarded.

So, the best holes were

- ⌘ #9; 520-foot double-pond to the snack shack,
- ⌘ #20; 440-foot wide open, and
- ⌘ #27; 350-foot island.

The holes that contributed nothing or less were:

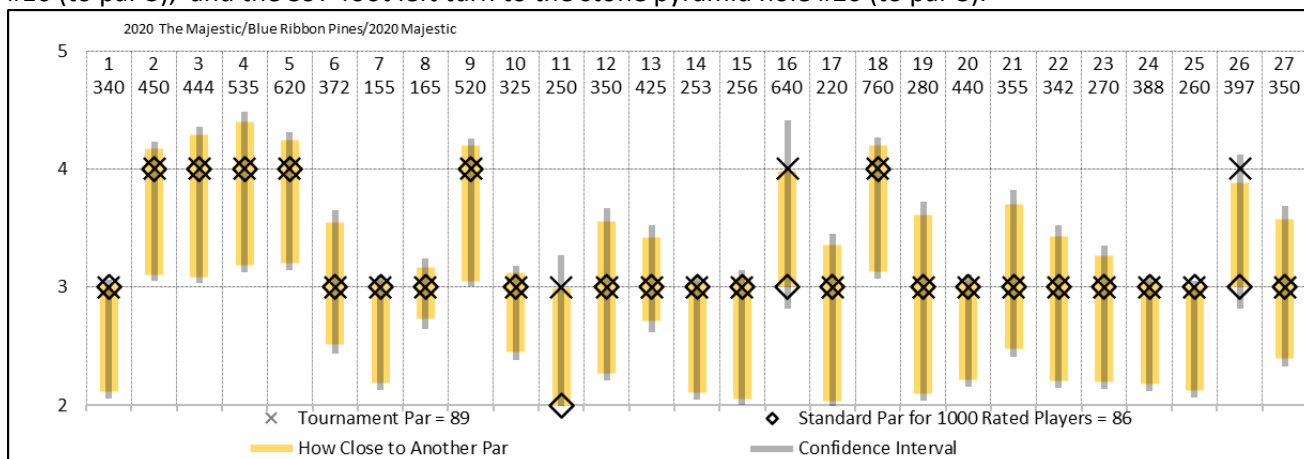
- ⌘ #4; 535-foot combined normal 5&6 with DZ in the swamp,
- ⌘ #7; 155-foot pachinko,
- ⌘ #13; 425-foot sharp left hook (almost) around the trees,
- ⌘ #14; 253-foot in-the-pit, and
- ⌘ #16; 640-foot across the pond past the port-a-potty to the field.

Standardized MPO Par

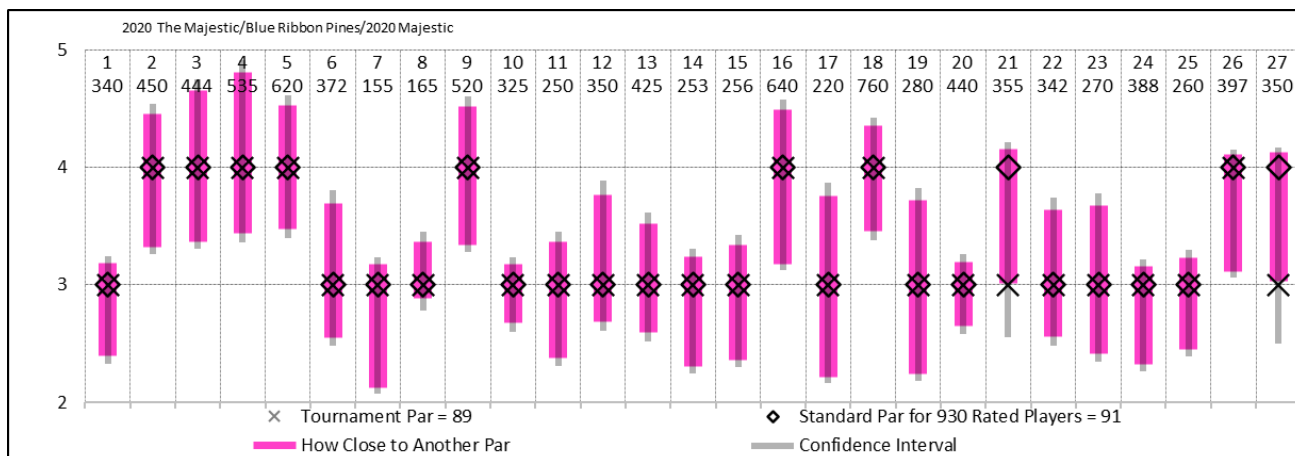
For calculating standardized MPO par, only the first round was used because the second round was extraordinarily windy. Even so, more than 34 player-rounds of data were available to calculate the scoring distributions of 1000-rated players.

Even par of 89 was rated 973, which falls outside the typical range of 990-1030 for appropriately set MPO par. Reducing par by 3 to 86 would result in a 991 rating.

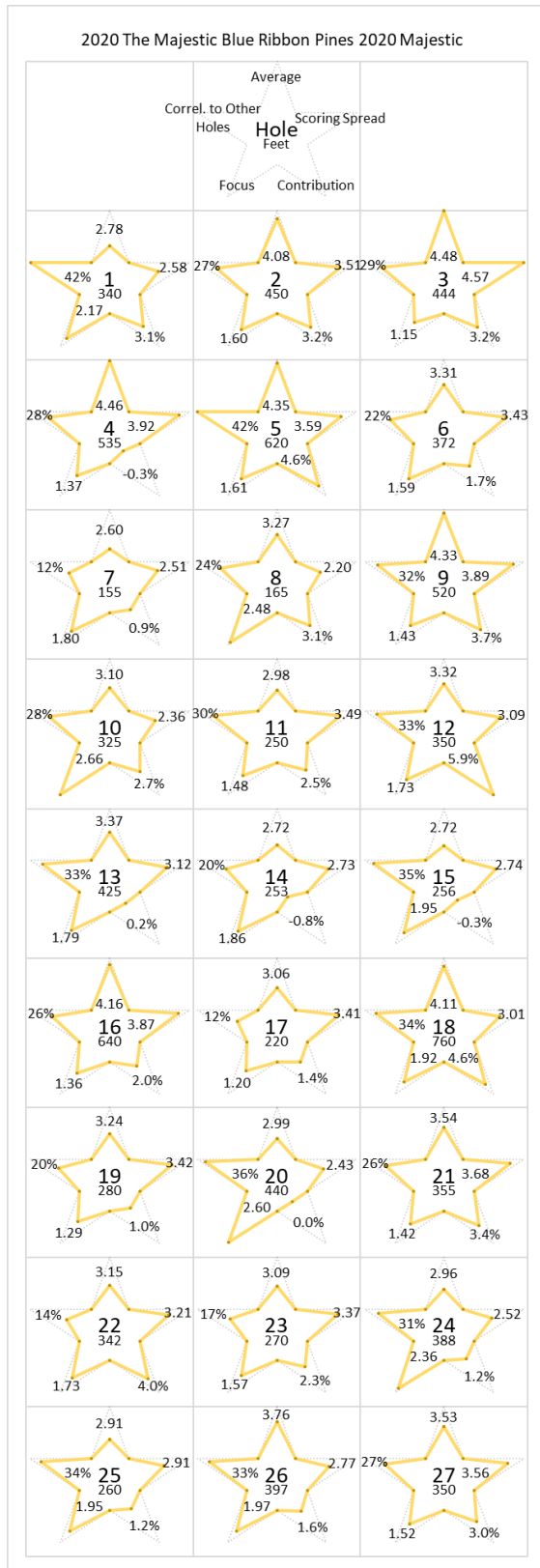
Based on hole-by-hole scores, the holes where par should be reduced are the 250-foot downhill just-clear-the-woods hole #11 (to par 2), the 640-foot across the pond past the port-a-potty to the field hole #16 (to par 3), and the 397-foot left turn to the stone pyramid hole #26 (to par 3).



For FPO, par should be increased for the 355-foot out of the woods across the ditch hole #21 and the 350-foot island hole #27. (Keeping FPO par at 3 for #11, and 4 for #16 and #26). The round rating for a score of 91 was 962.



Multiple Statistics by Hole



The statistics in the chart above are based on all FPO and MPO players, both rounds.

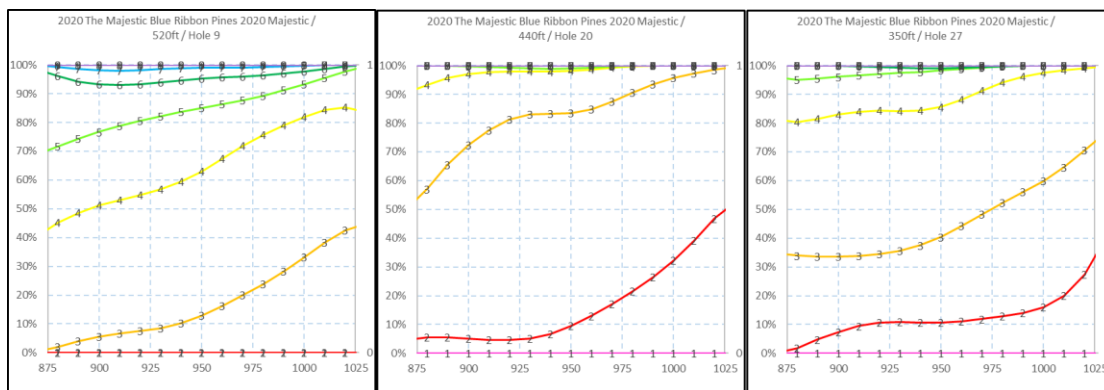
The more well-formed stars - with longer arms - indicate the better-performing holes.

- ⌘ Average is just the average score.
- ⌘ Scoring Spread is a measure of how many different scores the hole handed out.
- ⌘ Contribution is the hole's contribution to the scoring spread of total scores.
- ⌘ Focus is how well the hole gave out scores which did not deviate much from the expected score for each player's rating.
- ⌘ Correlation to other holes measures the agreement between each hole's scores and the total score of other holes.

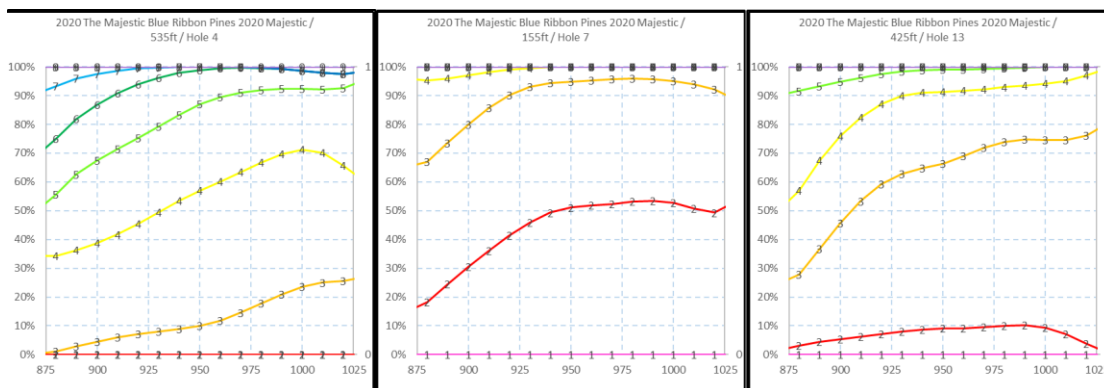
Sample Hole X-rays

The following charts show the scores as a function of rating. Each line represents the percentage of players who got the indicated score *or lower*. So, a hole that gives out lower scores to higher rated players should have lines that always go up to the right.

The best holes:



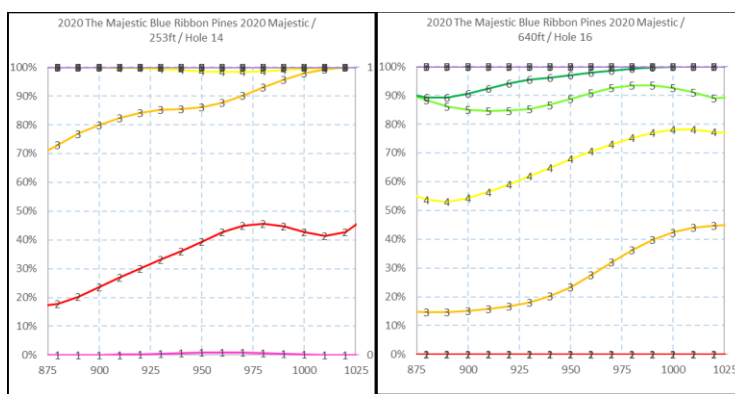
Suggestions for improving the worst holes (the holes that do not help the course sort out players rated 970-1020):



Hole #4 is the 535-foot combined across the swamp hole. This hole gives more high scores as player ratings get above 1000. This hole also has back-ups. One thing that could be tried is to place the target in the ideal first-throw landing spot; down toward the swamp from the short (normal hole 6) tee. Players who make that throw would always be rewarded, rather than facing a risky upshot to the current target. Then, the players can move on and get out of the way. Perhaps a par 2 could be inserted alongside the right side of the fairway to use the basket location.

Hole #7 is the 155-foot pachinko hole. This hole gives out almost the same percentage of 2s and 3s to all skill levels from 940 and up. Perhaps this hole cannot be improved. One thing which could be tried is to block off the lucky gaps, leaving only a select one or two preferred gaps. Or, block off the currently preferred gap to make players take a creative blind route.

Hole #13 is the 425-foot sharp left hook (almost) around the trees hole. This hole simply had too many 3s. The too-tucked away target did not allow for a lot of parked drives. The tight OB behind the target also converted some 2s into 3s. The simple solution is to use the middle target location.

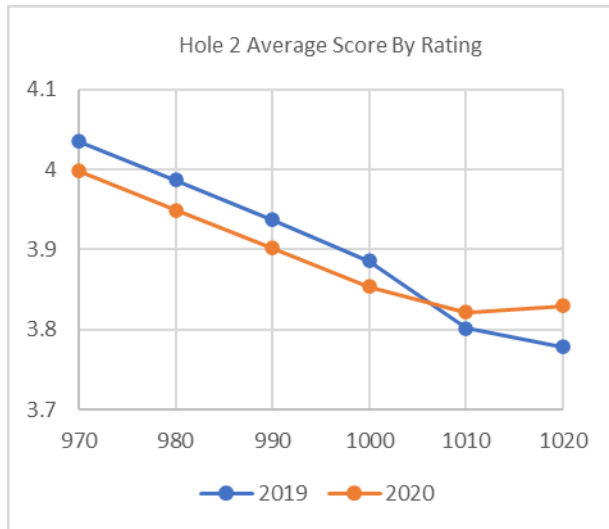


Hole #14 is the 253-foot in-the-pit. The 2s it gives out are not related to ratings in the 970-1020 range. Clearing a few obstacles may help, or the basket could be located behind the pit (so some players would be putting from the bottom of the pit), or a trickier line to the basket could be featured.

Hole #16 is the 640-foot across the pond past the port-a-potty to the field. The problem here is the 6s and 7s across all skill levels. There's too much random punishment. Converting the OB areas into Relief Areas could help directly by reducing penalties. It could also help by allowing players to be more aggressive in pursuing low scores. Clearing the right side rough a little would give players a chance to recover. Removing the last tree on the right before the pond could also help.

Hole 2 Changes

Hole 2 was modified by adding a secondary fairway. We can see whether this was an improvement by plugging last year's scoring distribution into this year's model. It turns out last year's layout would have helped the course do a slightly better job of sorting 970-1020 rated players. We can see why by looking at the average scores by rating:



Perhaps most players used the old route (except when a lucky bounce gave them a look at the new fairway) while the highest rated players opted to try for the possible 2 off the tee and got burned. In any case, the new fairway reduced the correlation of ratings to hole scores across this range. The new route may need to be eased a bit.

Scorecard



Majestic 2020

Blue Ribbon Pines

Hole	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	Total
Par	3	4	4	4	4	3	3	3	4	3	3	3	3	3	3	4	3	4	3	3	3	3	3	3	3	4	3	89
Length	340	450	444	535	620	372	155	165	520	325	250	350	425	253	256	640	220	760	280	440	355	342	270	388	260	397	350	

Name																												

OUT OF BOUNDS

- 1 - Klondike (main road) or across/inside mow line.
- 2 - Any area marked with white stakes.
- 3 - Any shot that lands in water.
- 4 - The drainage ditch.
- 5 - Anywhere in parking lot.
- 6 - OB for all ditches is the mow line, OB for all ponds is the water.

AIRBORN

DROP ZONES

Drop Zones are to be used only when your drive goes OB.

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