Safety Risk Analysis

Safety for surrounding residents and homes has been at the forefront for most of the physical layout changes to the Tyandaga Golf Course.

In December, Council released a Confidential report and appendices (L-54-23) of Tyandaga's Site Review and Safety Analysis completed by Miller Golf Design. All 18 holes at Tyandaga Golf Course were reviewed, internally and externally, regarding any safety risks to adjoining private and residential lands and within the golf course itself. There was a focus on Hole 18 at this time.

Internal Risk:

Inherent safety concerns within the golf course, such as stray golf balls within the course or shots taken at peculiar angles, cannot be eliminated through renovations or alterations due to the limited 108 acres that Tyandaga sits on unless we continue to reduce the number of Pars. To mitigate internal risk, staff have recently installed signs indicating that playing golf at Tyandaga comes with assumed risks. Moreover, holes with limited visibility feature bells to signal players when someone is taking a shot. Lastly, the traditional warning cry of "Fore" can be used to alert all golfers to be aware of their surroundings.

External Risk:

External risks were based on anticipated shots from a variety of different types of golfers, safety angles and anticipated shots. External risks in the Consultant's report included safety issues on Holes No. 4, 5, 6, 9, 11, 12, 14 and 18 as these holes are adjacent to existing residential developments. Two other holes number 15 and 16 are identified as these are adjacent to vacant lands. In the past, staff through the consultant's recommendations, have reduced potential external safety issues associated with holes number 9 and 14 by adding netting and moving the location of the tee boxes.

Below is a chart depicting the Consultant's primary concerns as it pertains to risk and safety:

Hole #	Identified External Risk	Present Situation
4	Townhomes behind the green.	Netting was put up behind green and have received zero complaints.
5	Homes along the left-hand side of the tee box	To date, have received one complaint every 4- or 5-years regarding balls entering hole 5 properties.
6	Homes along the left-hand side of the green	Fence was erected and we have received no complaints regarding balls.

Hole #	Identified	Present Situation
	External Risk	
9	Tennis courts on left side of hole	Netting was erected and moved the tee box; received no complaints from the tennis club regarding balls.
14	Homes along left side of hole 14.	Hole was changed from a par 4 to a par 3. Since the change was made, we have received only one complaint of golf ball damage and that was during the off-season when the course was closed.
15	No current safety concerns.	Holes to do run adjacent to any homes nor alongside of any holes.
16	No current safety concerns.	Holes to do run adjacent to any homes nor alongside of any holes.
18	The City received claims regarding damage to homes	After review with the safety consultant, changes to the layout and length of the hole 18 into a par 3.
	along hole 18 when it was played as a par 4.	No complaints since changing hole 18 to a par 3.

Mitigating External Risk:

As seen from the chart above, majority of claims and risk were mitigated with the change to Hole 14 and 18; however, potential risks still exist on Holes 4 and 5. Furthermore, as stated in the chart above, there is an assumed risk for Hole 5 where we get 1 complaint every 4-5 years about a stray ball landing on the property. To minimize potential safety hazards, changes could be made such as reducing crowning on the tee boxes, installing netting in most compromised areas, strategically planting trees in noted risk areas, filling sand traps to redirect where golfers will aim their shot, and increasing signage. Future mitigation would include planting of smaller trees to maintain the area's safety. Continuous monitoring will also be implemented to ensure ongoing safety.

Note that no amount of safety angle or safety feature can stop 100% of golf shots or guarantee 100% safety as there are other factors that can alter the situation outside of the anticipated golf shot and shot line. There is also an assumed risk for the homes that back onto the golf course.

Summary:

In summary, there are both internal and external safety risks associated with running a golf course. Based on the Safety Analysis Study of the entire 18-hole golf course, the Consultant recommended we consider several options for the 108-acre property. Introducing some of the mitigating options starting next year include adequate risk and safety signage throughout the course, in addition to pruning of trees for increased visible sight lines. Other options to continue to mitigate risk include putting up netting, planting mature trees, or planting of smaller trees for future risk mitigation. In addition to

the one Consultant's recommendations, Golf pros also recommended that fixing the tee boxes and correcting the mounds by increasing the putting areas can help with safety mitigation. Finally, the Consultant also considered the reduction of the golf course to a 9- or 12-hole layout to fix all the external safety concerns. However, as seen above, there are options to mitigate risk without having to change Tyandaga into a 9- or 12-hole course.