

GREENS RENOVATION ON THE NORTH COURSE--DETROIT GOLF CLUB

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Detroit Golf Club was established in 1899, starting out as a nine hole private club. In 1914 Donald Ross was retained to build the present 36 hole layout, with greens planted to Washington Bent.

Then in 1956 the Washington Bent greens on the North Course were changed to Toronto C-15 bent. The Toronto C-15 bent was the best bent of the times, more disease resistant and quicker green-up ability in the spring.

To improve the putting surfaces, in 1974 we switched to Dune Sand top dressing. The greens responded great until about 1980. At that time I reported to the Board of Directors that our greens on the North Course were in a declining stage. This is when the problems of thinning turf during the summer stress period began.

Bacterial Wilt was identified along with poor water movement through the one inch sand layer which created a short root system.

During the early 1980's I continually advised the Board that the club could be looking at a major rebuilding program on our greens. Increased aerifying, better water management, etc., did not seem to improve our putting green quality.

Finally in the summer of 1987 my green chairman and I visited Aurora Country Club in Illinois, Wayzata Country Club and Hazeltine Golf Club in Minnesota. These three courses had experienced similar problems and had taken major steps to improve their greens. Aurora Country Club rebuilt their greens completely in the fall of 1986 and seeded then to Pennncross. Wayzata Country Club and Hazeltine Golf Club only replaced the sod on their greens with Pennncross bent sod. We were very encouraged by what we saw at all these clubs.

At this point we secured bids on a complete renovation of our greens and met with our architect (Art Hills) to discuss any contour changes in our greens. Then in October of 1987 we called a special meeting of our membership asking for approval of \$768,000 for this project--\$439,000 for green reconstruction, fairway and bunker renovation and \$329,000 to cover lost revenue at the club and the possible financing of the project.

The presentation was made with Dr. Vargas from Michigan State University and James Latham from the United States Golf Association present at the meeting. Dr. Vargas talked about our disease problems with the present greens, I gave a rundown on the history of our greens, and James Latham talked about the mechanics of rebuilding the greens to U.S.G.A. specifications. A vote of the membership was taken and passed 148 to 32 in favor of the project.

August 9, 1988 was our date to close the North Course and start the project with a possible reopening date sometime between June 15th and July 1st of 1989. The following slide presentation will give you some idea how things have progressed.

The first group of slides shows some of the decisions that had to be made prior to the beginning of construction. Selection of the putting green grass was made by building two 5000 sq. ft. nurseries, one to Penncross, and the other to Pennlinks. Choosing our contractors was also done far in advance of any construction. Quality Golf Construction was chosen to rebuild the greens and Osburn Trucking to supply and mix the materials, with each doing a wonderful job.

One of the most difficult but important decisions was to select the right greens mix. After having several mixes tested, we chose a mix of 75% Grand Haven dune sand, 12.5% Michigan peat, and 12.5% Canadian Sphagnum peat. Osburn Trucking purchased a machine which could mix the sand and peats into a consistent blend.

Construction began on August 9 with each green surface being charted in a five foot grid pattern using a laser. This was done to preserve the original Donald Ross contours on the greens. Excavation began the next day using a backhoe and two tandem dump trucks. The contractors carefully dug to a depth of 18" following the contours they had charted for each green. A clean edge on the sides of the greens was hand edged to make a smooth line between green surface and the banks. Drain tile was then trenched in using a herringbone configuration and tied into existing drain tiles. A vertical plastic liner was staked around the greens edge to avoid drying of the greens collar. Readings of the subgrade were taken to ensure they matched the desired top contours.

The four inch pea gravel layer of a U.S.G.A. green was brought in and hand raked to a uniform 4" depth. Pictures showing all the hand work involved as the front end loader placed the materials. The next step was to cover the pea gravel with two inches of coarse sand, to create a buffer layer. This again involves raking out loader tracks and spreading the sand to a uniform depth.

The top mix involved less hand work, as a small bulldozer works from one end of the green, staying on top of the green mix material. A small trap rake shapes the top to desired contours. Fertilizer is then applied with two pounds of phosphorus in a 13-25-12 analysis being matted in. The seed is then applied in two directions using one pound per 1000 sq ft of the Penncross/Pennlinks mixture. A roller device using a series of sand trap rake tires dimples the surface, and finally a brush again smooths the surface.

The seed germination was excellent and grass was up in as little as five days. Mowing the new greens begins in about five weeks after seeding and was done at 3/8" to promote spreading of the stolons.

The fairway renovation part of the project also began on August 9th by applying Round-up to the front nine fairways. The spray-technician followed painted lines to give us desired contours. He also was instructed to exit each fairway by way of a fairway trap to eliminate tracking of the Roundup.

Aerifying the fairways was the next step using Salsco aerifiers with 3/4" tines. This brought up a lot of soil which would be needed for seed/soil contact. Slicing the fairways using a Roseman Verticut set down to cut into the soil was used to prepare the seedbed. Penncross at 1 lb/1000 sq ft. was

then put down first using a 3' drop spreader around the edge and a 10' Gandy spreader to complete the fairways. The verticuts were used again to promote seed/soil contact. The next step of process was rolling fairways, and within four weeks we were cutting the new fairways. The final step of the fairway renovation was to apply Prograss in two applications, which were done October 7th and November 3rd, 1988.

The North renovation also included reseeding 15' of rough around the length of the fairways, and all the banks of the greens. Much of the same steps used in the fairway renovation were used in these areas. Of course, cleanup around the green areas had to be done so some grading work went along with reseeding these areas. The banks and rough areas were seeded with a mixture of three ryegrasses (Pennant, Pennfine, and Manhattan II), and 25% Scaldia fine fescue. The dark green color of the ryegrasses has given good definition between fairways and rough areas.

A part of the renovation which will start this winter is to replace our bunker sand with Ohio silica. This project will complete the North Course renovation and we hope to begin play between June and July. We are encouraged by the progress, and hope our membership will enjoy an improved North Course.