

# Hammering away at a maintenance nightmare

## Burning Tree CC staff solves drainage problem

By STEVEN RENZETTI

The *ultimate* in deep-tine aerification? That's what a seasoned and sympathetic maintenance worker might have thought we were up to last fall as a jackhammer rammed up and down through the surface of the 15th green at Burning Tree Country Club in Greenwich, Conn.

Either that, or maybe we'd just spent too much time around the 19th hole.

But as crazy as we may have appeared, there was a method to our madness.

Developers built Burning Tree's greens from native soil back in 1962. Subsurface drain tile was omitted. That proved particularly troublesome on the 15th green, where a wet spot and discolored turf appeared from time to time.

Checking past maintenance records and U.S. Golf Association reports, we discovered former superintendent Robert Alonzi (now at Winged Foot Golf Club) had isolated the problem.

He noted the green was built over a natural spring. In addition to occasionally large amounts of water, it also released extremely high concentrations of iron.



Workers at Burning Tree CC install PVC pipe to solve a drainage problem on the 15th green. They first had to drill through the putting surface and underlying ledge with a jackhammer. Superintendent Steve Renzetti reports the 15th is now one of the top greens on the Greenwich, Conn., layout.

Rather than surfacing in one spot, the iron-laden liquid created a large, soggy patch measuring almost 30 square feet. This created an inconsistent green, where it was near impossible to maintain quality grass.

Rebuilding the green seemed inevitable. But first we decided to open it up and investigate.

Lady Luck looked to be on our side when our first test hole hit what appeared to be the main source of water. The simple solution — run drainage tile down the middle of the green, trap the water below the surface and run it out the back before it had the chance to

reach the top.

We brought in plywood sheets, sod cutters, shovels, edgers, utility vehicles and our most experienced crew. An hour into the project, the foreman called on the radio.

"Boss, we hit some rock," he said.

"Well, take it out," I answered.

"No. You don't understand," he came back. "We hit ROCK."

He was right. Ten inches down were huge boulders, some the size of large office desks. So much for the simple solution.

Having committed ourselves to the investigation-before-rebuilding route, we headed to the rental store. There we picked up a 75-cubic feet per minute

compressor and jackhammer with carbide tip bits.

Knowing the granite-like rock would not chip easily, the three-man crew settled into what they knew would be a lengthy job. They took turns hammering the stone. Two days and many tired muscles later, they broke through.

A slow trickle of water passed through the trench they created down the green's center. We laid 4-inch perforated PVC drainage pipe back-filled with pea gravel. That was covered with filter fabric overlaid with 10 inches of top mix.

Even though the rest of the green was formed from native soil, we went with a 80-15-5 topdress mix over the reconstructed area to maximize water percolation into the drain tile.

Such a sandy top mix could have created an impermeable layer between the native soil and new materials. To reduce the likelihood of that occurring, we added a wetting agent and high-phosphorous fertilizer to help the roots dig deeply into the soil.

Solid-tine aerification over the trenched area helped further break down any possible layering in the resodded area.

Six weeks later, I dared anyone to spot the drain tile. Today, the 15th green is considered one of the better and more consistent greens on the course.

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