The Tree Doctor Is In

And he has saved the famous and frightening 100-year-old oak tree on the 13th hole at Firestone CC

Problem

The massive oak tree on the 13th hole at Firestone CC is in danger of dying because its trunk is rotting to the core. If you take the towering tree from the hole, you take away its biggest hazard – and the hole becomes a walk in the park.

Solution

Tree surgery, as in removing the rotting wood and filling the gaping tree cavity with a thick mix of masonry sand, Portland cement and water.

BY LARRY AYLWARD, MANAGING EDITOR

From the tee, the 80-foot oak tree looms in the distance — its monstrous branches stretching over the fairway like Frankenstein's arms.

You feel the tree's ominous presence as you prepare to hit your ball. You swear you hear its perverse voice whispering in your ear. "Watch out for me," the tree says with an evil hiss. "If your ball hits me, I'll bounce you in the rough, and you'll never make par."

The tree is to the right, about 225 yards from the tee. You have the muscle to hit the ball that far, but the tree has you spooked. So you aim left and end up hooking your ball over a slope and into an adjacent fairway.

"Fore!"

Angry and shaken, you glance at the tree, which seems to wear a sinister smile on its expansive trunk. You scatter like a goose being chased by a border collie. You'll gladly take double bogey to be done with this hole.

Welcome to the 13th hole at Firestone CC's South Course in Akron, Ohio, where the famous — or infamous — 100-year-old oak tree has messed with the minds of many golfers for years. But the tree doesn't mean to terrify them — it's all in the name of fun and challenging golf.

Competitive players realize if you took away the towering tree, the par-4, 457-yard hole would play as free and easy as a character from a Jimmy Buffett song. They don't want the hole to be smooth sailing. And they're thankful it's not because they know it could have been. The cruel world almost took the awe-inspiring tree from the 13th hole. One can only say, "Thank god for technology of yore."

PHOTOS BY DAVEY TREE EXPERT CO.

Once the cavity was cleaned and filled, the tree began its healing process. Two years later, it appears to be in good health.

The problem

It's a wonder the tree has stood this long. "It's a giant lightning rod," says Mark Connor, the South Course's superintendent.

What lightning couldn't do, however, decay caused by weathering nearly did. It started when the tree's huge lower limb broke off its side several years ago.

All was well, but more than two years ago the tree's massive secondary trunk began rotting on the side where the limb broke off. Carpenter ants, recognizing an opportunity to feast, swarmed

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over the barkless trunk as if it were a huge crumb. They dug toward the core, and the tree's base weakened.

A summer storm with a stiff wind could have flattened the tree — and tamed the 13th hole.

Options

Connor and the folks at Firestone weren't about to chop down the tree, even though that's what you do these days with old, sickly hardwoods. They knew they had to stop it from rotting — but how?

Brian Mabie, Firestone's director of golf course maintenance, phoned the tree doctor — in this case, Stow, Ohio-based Davey Tree Expert Co. Davey's Gordon Matthews, a certified arborist, agreed to examine the tree.

What he saw — a hideous 7-foot-high deterioration — was not pleasant. What he told Mabie was worse.

"I said, 'Brian, I have to be honest with you. I don't know what I'm getting into,' " Matthews says.

Solution

There was no magic potion to turn the 5-foot-wide trunk solid again. In fact, there was no state-of-the-art solution. So Matthews opted for an old method of tree surgery.

The operation began with a chain saw. Matthews' crew cut portions of the rotted wood in blocks and removed it. "They cut into the heart of the tree," he says.

Matthews discovered another grapefruit-sized rot pocket had formed on the trunk's opposite end. He figured the two rotted ends would meet in the middle of the tree.

Fortunately, he was wrong. Only about 2.5 feet of the tree's 5-foot-wide trunk was decayed. The middle 2.5 feet of the tree was solid.

After the rotted wood was removed, Matthews began researching the old art of filling a gaping tree cavity, which is similar to the way a dentist fills a tooth. He dusted off old maintenance books and researched other information from the 1940s. He contacted a retired Davey foreman, Ivan Frank, who worked for the company for more than 40 years and specialized in tree surgery.

"He sent me some notes and gave me an overview about how to do it," Matthews says.

After the trunk was cleared of decayed wood, Davey Tree's Gordon Matthews (right) and Roger Hays installed rods to help provide additional support for the cavity.

This type of tree surgery was in vogue in the '20s and '30s, Matthews notes. But over the years, the technique became less popular because of rising costs and time-consuming labor.

"People stopped seeing the importance of it," Matthews says. "They figured that a hollow tree was a hollow tree, and it goes when it goes."

But Matthews knew it was the only method to save Firestone's oak tree. And yes, the doctor was sweating over performing the surgery like a pilot on his maiden flight.

Matthews and his assistant Roger Hays first installed rods to help provide additional support for the cavity. When the rods were in place, a protective covering was used to line the inside of the tree.

Matthews and his assistant then built a base anchored by a wood form filled with concrete, much like a sidewalk. It provided a horizontal surface to fill the cavity.

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▼ A cavity filling requires much more than dumping concrete into a hole in the tree. In fact, filling a cavity in a tree is similar to the way a dentist fills a tooth cavity. One of the first steps is to carve out the decayed area and remove any rotted wood.

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The job turned tricky when the two men began working to fill the cavity. The problem was getting concrete to hold in a 7-foot-high vertical area. The mix couldn't be soupy or it would slip out of the cavity.

"It took us about a day to figure the right mix," Matthews says.

The thick mix included masonry sand, Portland cement (made from limestone and clay) and a small amount of water. The workers placed pieces of tar paper between layers of mix laid in the cavity. They had to wait for a layer to dry before starting another.

"The tar paper between each layer gives the cavity filling a little flex and sway to it," Matthews explains. "When the wind blows, there's some give. If the cavity was filled with one solid piece, it would eventually crack."

The cavity took about six days to fill and cost about $4,500, but only about $200 for materials. "You can't rush a project like this," Matthews notes.

After the covering was in place, a worker began to fill the cavity with a specially mixed Portland concrete to serve as a surface for the tree's callus to grow over.

Outcome

People always talked about the mammoth oak tree on the 13th hole, but now they also chat about its huge cavity filling, as did TV announcers who covered the NEC Invitational golf tournament last summer. From a distance, people will tell you the filling looks like tile in a bathroom shower. But Matthews says grooves were added to the final layer for aesthetic reasons.

"It would look terrible if it was a flat surface," he adds.

Matthews visits the tree after powerful storms to make sure it's holding up. On a recent day, he fertilized it with slow-release tree food.

Matthews is keeping a close watch on a callous that surrounds the filling. The idea is for the callous to grow from both ends and eventually cover the filling with bark. It's growing slowly, but the filling might not be covered until Tiger Woods hits the Senior Tour.

But the bottom line is the oak tree has been saved — and it's as big and bad and unnerving as ever. ■