

The McFarland Park Golf Course lies on a floodplain separating the business and residential section of Florence, Ala.

18 Greens In The Air

THERE may be another golf course in the nation that can boast of being downtown. That would be enough distinction for any course. But a new course in north Alabama goes one better. It's not only less than 7 blocks from the heart of a city of 36,000, but it was designed to survive more than 6 feet of fast moving flood water.

These are the reasons a lot of people are talking about the McFarland Park Golf Course in Florence, Alabama. Completed last summer, the 18-hole municipal course is part of a park complex bordering the Tennessee River. Besides the course, there is a driving range, baseball playing fields, a boat harbor, swimming areas, picnicking, and a large



The maintenance and equipment building is elevated and equipped with a ramp. During high water, tools are moved from below to the upper part of the building.

camping area.

The entire park is on a flat wooded floodplain designated by the Tennessee Valley Authority as an overflow area which is part of TVA's flood control system. From the beginning, park planners knew that the course would have to be "waterproofed."

All 18 greens with a total area of about 160,000 square feet are elevated to an average of about 7 feet above the surrounding area. That's high enough, say the engineers, to keep them out of the water under almost any conceivable high water condition along the Tennessee.

But even in dry weather, golfers aren't too far from water. The course has 10 lakes averaging about an acre in size; the largest covers 4 acres. Water comes into play on 13 of the 18 holes.

If that weren't enough of a challenge, the course also has 4 mud flats. They're mud for about 3 winter months when the Tennessee River is normally at its lowest. The rest of the year, they're covered with shallow water.

Water levels in the lakes are controlled by valves equipped with trickle tubes to allow water to flow (continued on page 32)



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Aquashade's light reduction principle that "starves" aquatic growth from the sunlight, is being employed successfully in a broad range of applications including golf course ponds, architectural fountains, conservation farm ponds, industrial ponds, cooling towers, irrigation canals and aquariums.





The 15th (1) and 17th greens stay high and dry as nearly five feet of flood water covers fairways and rough.

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both ways. Seven of the lakes are interconnected by drain pipe and are served by one valved outlet to the river. Two more form a similar network. The 10th is connected to the river by its own valve. As the river level rises, water floods the course gradually by spreading out from the lakes which receive water through the valves. During times of heavy rainfall, surface water drains from the course in reverse — from the lakes to the river. Clever. Yes.

Besides this system for controlling natural water, the course is equipped wtih an automatic electric irrigation system for watering greens and tees. Water is pumped from the river by two pumps with a total capacity of 695 gpm. Delivery is controlled by 8 satellite time clocks which can be overridden for syringing several greens at the same time.

The McFarland Park Golf Course was designed by Earl Stone, a golf course architect in Mobile, Alabama. Course superintendent Jack Green made sure that Stone's plans were properly executed. In fact, he added a lot of touches of his own. Says Green, "I've been working on golf courses for 20 years and I've always wanted to build one and do it right. I had a chance to do that here in Florence. And I did it."

Green selected Tifdwarf Bermuda for his greens and tees because he believes it presents a smoother putting surface. But it also knits together to form a tougher sod that holds soil better — an important point since the elevated greens are vulnerable to erosion. Common Bermuda is used on the fairways. "Several people say this soil is too wet for common Bermuda," says Green. "But we're growing it and I don't see any difficulties ahead."

Although confident of his and Stone's planning, Green had his first anxious moments this past December. As with much of the country, the southeastern states had more than their share of rain. The Ten-

Here's the type of apparatus used to control water level on the course's 10 lakes. Two lakes separating fairways 11 and 12 and 9 and 11 have yielded over 300 balls put there by erring golfers.



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nessee quickly rose to its highest level in 7 years and by December 10, the course was under water. The flooding lasted for two weeks. Some of the course was covered with as much as 5 feet of water for three weeks. A few days later, the area was sheathed in ice by an ice storm and hit by the coldest weather of the winter. "But," says Green, "everything passed the test, including our ryegrass winter greens."

Not noticed by golfers but of constant concern to Green and his 8-man crew, is the soil on which the course is built. Says Green, "It's been washing down this river for a long, long time. It's so acid that we have a tough time keeping the pH up. And it holds water so well that we have to wait about 3 days after a big rain before we can really do much on the course."

He adds: "Another thing. It's a mile from one end of the course to the other. But there's only 5 feet of fall. We use a transit every time we dig or fill an area because being off by just a few inches can create a big drainage problem."

Technically, the soil is a loamy silt with clay. And it's deep. Test borings show that there's no change in the soil for 8 feet. Below that



Jack Green, superintendent of the McFarland Park Golf Course, checks one of his elevated permanent greens protected by plastic during the winter.

there's blue clay.

Before planting, the course received the following fertilizer and lime: Greens and tees, 100 pounds of basic slag and 30 pounds of 8-8-8 per 1,000 square feet; fairways and green slopes, 2 tons of agricultural limestone per acre and 1,000 pounds of 8-8-8 per 1,000 square feet.

Clearly, the unique location of the course offers a real maintenance challenge. But the course itself is no pushover for the golfer, either. More than 5,200 have played the course since it was dedicated last August 28. Many of them have learned to respect it.

Says course pro, Chip Enlow, "This is a sporty course. You've got to keep the ball in play and hit placement type shots. So far, we haven't worried too much about putting in the planned sand traps. With all that water, those trees, and every green in the air, we haven't missed 'em!" \Box



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