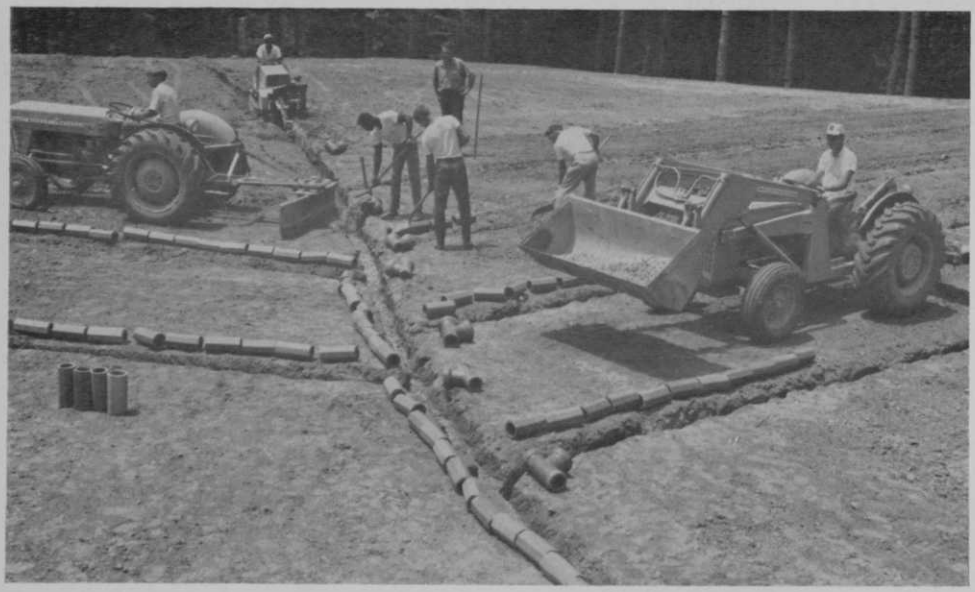

Tractors and trencher prepare ground for underground drainage.

Building greens to last

"Hidden assets" to pay off in later years for MacGregor Downs, Raleigh, N. C., because of fewer drainage, soil and grass problems.

By VERNE FLOYD

Photos by the Author

MacGregor Downs, a new golf course under construction in Raleigh, North Carolina, is building greens that will last indefinitely. Superintendent Lou Oxnevad points out that the new course is planned with less headaches for the superintendent by using the best possible bent grass for year-round play.

Thus, unseen material and labor expended for below-surface buildup will undoubtedly pay off in the years ahead. The surface rough grade is followed through on all greens to show the same grade in putting surfaces.

For drainage, trenches 12″ deep and 8″ wide with 5′ to 1″ slope are cut into the rough grade of subsoil. Greens have one to three main channels with lateral trenches spaced 12′ apart. Average total length of the 12″x4″ drainage pipe per green runs about 800′. The outlets of main tile lines extend from green to rough with added 4′ sections of 4″ terra cotta pipe.

When the crushed stone and tile are placed in the trenches, an overall cover of 4″ to 5″ of ¾″ stone is spread over the green. To prevent soil from seeping into the crushed stone, a 2″ layer of coarse sand is next placed over it.

To get material for the top 12″ of greens a large off-site mixing operation was set up near the golf course where a deposit of sandy loam soil is located. To this area trucks hauled coarse sharp sand and the sand and soil were mixed with loaders, three parts soil and one part sand. This mixture was recommended by

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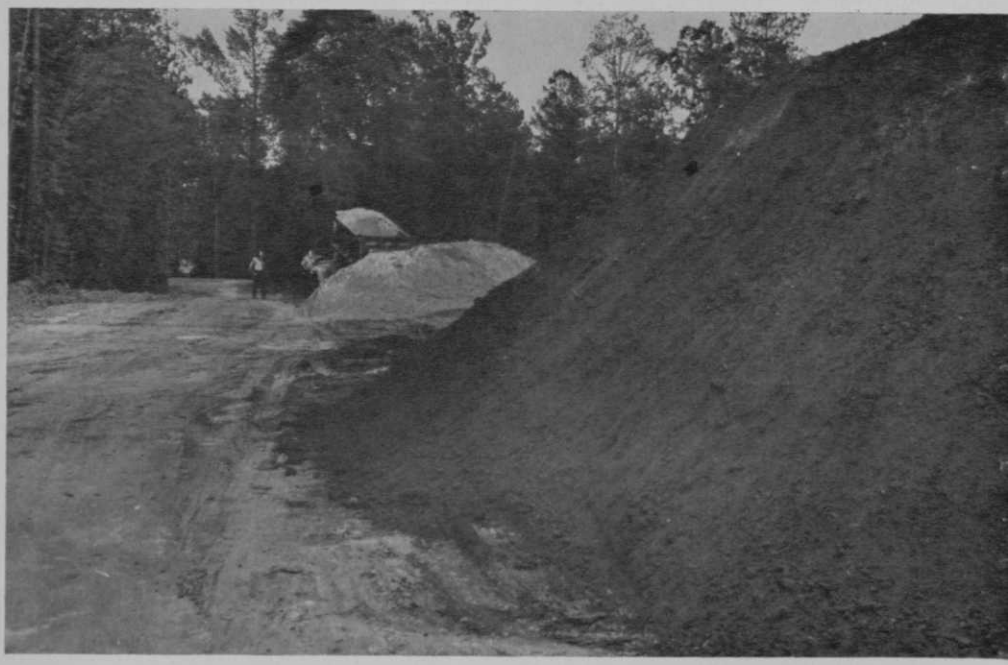
This view shows the 4" of ¾" stone which has been spread over a rough grade to form new golf green at MacGregor Downs.

Tar paper is placed over ends of terra cotta pipe, which is laid inside the channels. Pipe is 12" long and 4" in diameter. Note T-joints of pipe where lateral trenches enter the main channel.

A 2" layer of coarse sand is placed over the stone to filter soil from the rock. Third layer of materials helps form solid base for topsoil.



"Mountains" of topsoil are mixed with sand at an offsite mixing area and hauled by truck to the appropriate green site on the course. Soil will form the top 12" of each green.

BUILDING A GREEN

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soil structure analysis laboratories, Superintendent Oxnevad reports.

It is estimated that approximately 5,000 cubic yards of this mixture have been used to form the top 12" of the 18 greens. As the soil is spread, checks are made with soil samples to see that uniform depth is attained over the green. A 2" irrigation pipe encircling the green has an average of five pop-up heads.

Sterilization of the soil is done after placing the soil on the green. Methyl bromide is applied to the soil and immediately covered by a single cover of three mil polyethylene.

Hydroseeding of Pencross Bent at two lbs. per 1,000 square feet this month will complete the MacGregor Downs golf greens to this point. •

Lou Oxnevad, MacGregor Downs superintendent, is shown standing on 12" layer of soil which becomes the top level of green.

The watering system is made up of five pop-up sprinklers which ring each of the greens.

At nearby Wake Forest CC a cover of 3-mil polyethylene has been placed over green so that soil can be sterilized with methyl bromide solution.

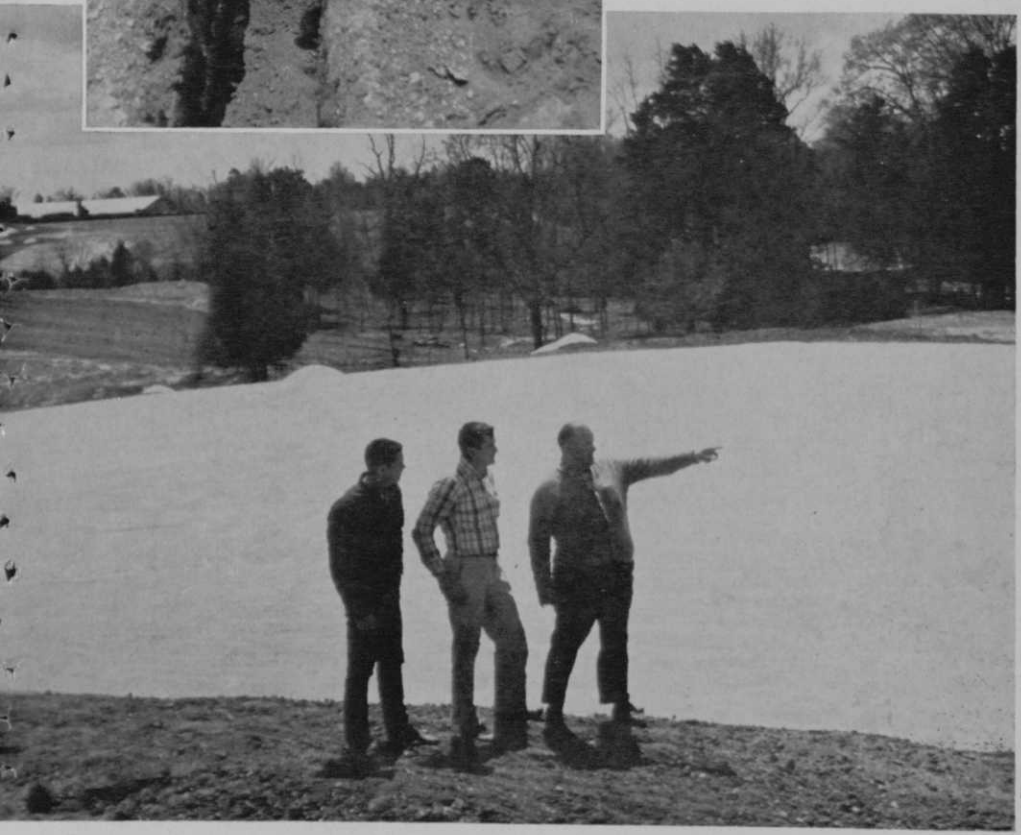

Photo: Leonard Kamsler