

Design for maintenance

No matter how unique or beautiful a course is, it has little value unless it has been laid out for easy upkeep.

By GEOFFREY CORNISH and WILLIAM ROBINSON

Now, more than ever before in golfing history, the contemporary player expects his course to be outstanding.

But no matter how inspired the design, or how magnificent and beautiful the setting, no layout is better than mediocre unless its turf can be maintained at the highest degree of perfection.

Of course, this must be accomplished without excessive monetary outlays. At least that's what the members expect!

Many turf problems are traced to con-

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struction errors and the others to original design and specifications.

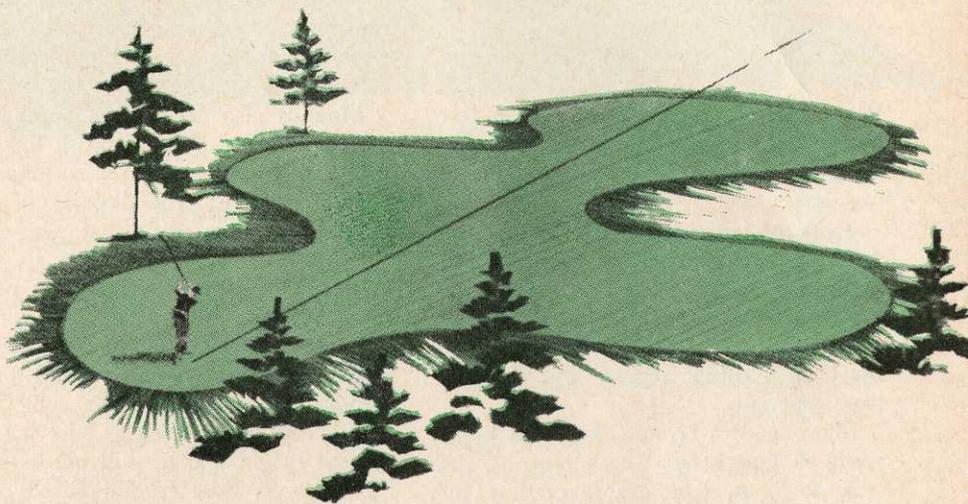
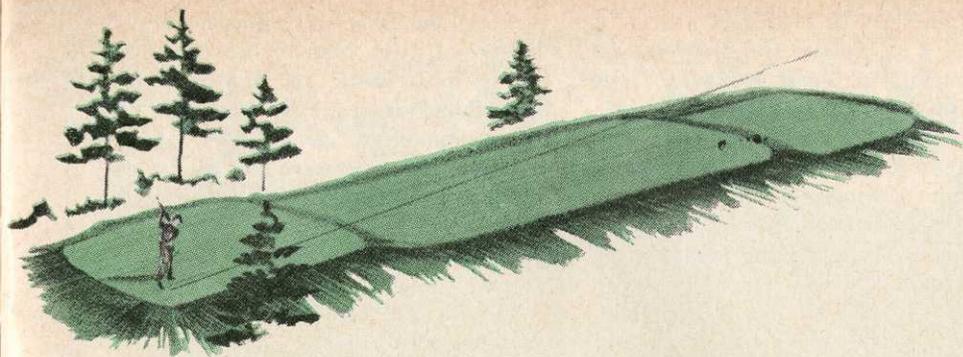
The latter include: depths and types of topsoil; preparation of soils for greens and tees; subdrainage; fertilizers, soil conditioners and grass varieties, together with methods for preparing seedbeds and sowing of seed. Obviously, all influence the future greensward.

At the same time, design, quite apart from these specifications, exerts an equally profound influence on turf.

Greens: — For example, a medium large green of around 7,000 to 10,000 square feet, with gentle undulations, affords eight or more pin placements. This reduces the likelihood of heavily compacted areas on putting surfaces and traffic paths toward the next tee, as is

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Not all tees on the course need be rectangular, but the middle of the tee should comprise most of the teeing surface for regular play. Markers can be moved daily on long and large tees, providing distance variation in long, regular and short yardages.



Planting a magnificent specimen tree too close to the putting surface of the green may jeopardize the green in unfavorable growing periods. Trees and greenery should be placed at least 60 feet from the putting surface.

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so apparent on "postage stamp" size greens of 5,000 square feet or less.

On the other hand, very large greens of 12,000 square feet or more necessitate high mowing, chemicals, watering and top-dressing outlays without always contributing correspondingly to playing interest and aesthetics.

Tees: — Tee size, too, is important. Large tees, 6,000 square feet or more in area, are certainly the most beneficial on courses with heavy play.

At clubs with limited play, smaller tees may suffice. In this era of unusually heavy play, however, 4,000 square feet appears to be the minimum if turf covering is to be maintained at reasonable cost levels.

Shape of tee is significant, with many architects and superintendents preferring long ones.

These long tees of 200 feet or more allow for a distinct difference in yardage for championship, regular and women's play, especially.

Many modern layouts play from 7,000 yards or longer from back tees, all the way down to 6,000 yards or less for women's play.

Long and large tees allow markers to be moved daily. Nature then does much of the repair work, and endless seeding or sodding as required on smaller tees is not required.

These long tees need not all be monotonously rectangular in shape, but the middle part of the tee, for regular play, should comprise most of the teeing surface available.

Grades and Mounds: — Course superintendents do not appreciate steep mounds. Nevertheless, mounds make a contribution around greens and on fairways, to provide accent and depth perception and increase player interest.

Mounds also add to eye appeal, and are reminiscent of the Scottish linksland where golf has been played so long.

In order to reconcile all points of view, mounds are now made that can be machine maintained, in contrast to sharp "chocolate drops" (sharply peaked mounds) that call for hand mowing.

Immense quantities of fill are required. For just a single mound on flat terrain, a thousand or more cubic yards of fill may be required to raise it to the desired height and to pull out its slope.

Bulldozers have revolutionized course construction and reconstruction. There-

Affording fewer drainage problems, the modern trap is raised above the fairway level and is clearly visible to the oncoming golfer. Hazards should be placed 10 to 12 feet from the green.





Contemporary design calls for gentle fairway slopes and clean roughs that can be machine maintained with a minimum of costly hand labor.

fore, if the problem is merely moving fill, you don't need sharp "chocolate drops."

Fairways are frequently encountered with steep grades and sharp drop-offs, which detract from the pleasures of a round, and, more importantly, increase maintenance costs.

Also, modern design calls for gentle grades and heavy earth moving equipment makes these possible. Gentle grades on fairways and cleared roughs permit machine maintenance, which reduces costly hand labor.

Golf Cars and Carts: — Powered golf cars and pull carts cannot be ignored in contemporary design. Placement of trees and hazards in relation to greens and tees is an important factor in traffic control; as is the positioning of the tee in relation to the preceding green.

Provision of adequate car paths is also required. Some committees prefer asphalt paths, but others find asphalt can be overdone. Therefore, materials such as crushed limestone screenings, sawdust in combination with an oil emulsion base, tanbark, wood bark and wood chips are often used. But most architects and superintendents will agree that the ideal surface has not yet been developed for car paths.

Sand: — Mounds do accent a hole,

but sand provides both contrast and excitement. Because of high maintenance costs, however, committees may feel that all sand traps should be eliminated. This has been tried, without much success. It was found playing values were compromised. Sand is part of the game, and no layout can be truly great without hazards of this type.

A troublesome aspect of trap maintenance is drainage. The modern trap, however, as contrasted to the old fashioned pit trap, which was literally a hole dug in the ground, is raised well above fairway level.

It is made by placing huge quantities of fill to form a mound, then excavating the trap in the face of this mound. This raised hazard is clearly visible to the approaching golfer and affords fewer drainage problems.

Placement of sand, in relation to putting surfaces, is important for both maintenance and play.

At one time, green traps were placed adjacent to the putting surface. Later, the trend was to place them some twenty feet out to prevent sand from reaching the green. However, the only players caught by these distant hazards were high handicappers, with troubles enough!

Therefore, a compromise was reached

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between playing and maintenance aspects. Many contemporary designers now favor sand 10 to 12 feet from the green.

For aesthetic value, traps are designed with capes of turf jutting into the sand, and bays of sand flashing back into the turf to resemble the natural formations of the Scottish coast.

Superintendents point out that the grass capes cannot be mowed with gang units. This is true. However, with care in design, they can be mowed with triplex machines; and, therefore, are not unduly costly to maintain. Furthermore, they act as walk-ins and walk-outs, thus reducing scrambling up the sand; this reduces raking costs.

Trees: — Trees and shrubs affect the greensward through competition and by reducing air circulation. Trees, too close, nearly always mean the putting surface will seldom be perfect in cold spring-times and hot, humid summers. Yet, it is a shame to destroy magnificent specimen trees.

Therefore, trees essential for beauty, shade and depth perception should not be planted closer than 60 ft. to greens.

Similarly, during construction greens are placed so that trees to be saved are at this distance or more from the greens.

Innumerable other maintenance aspects are affected by design. The foregoing examples emphasize the importance of design on the well-being of the future greensward.

In addition, they should remind us that you pay for what you get. No layout can be great, or the design truly authentic, if turf cannot be maintained in nearly perfect condition without exorbitant outlays. ●

Midwest begins expansion

The Midwest Lawn-Saver Equipment Co., Appleton, Wisc., is expanding its manufacturing facilities about 30 per cent. The new building will house the engineering and manufacturing facilities.