

Inflation has added its punch but do you want a Cadillac for a Chevy price?

What makes a golf course cost as much as it does?

By Joseph S. Finger & Associates, Golf Course Architects—Planners

"I know of a course that only cost \$60,000 to build just 30 years ago! Don't tell me it costs nearly a million dollars to build one now! Somebody is crazy!"

It doesn't, and we aren't! We hear this all the time. The trouble is, what the person is really saying is: "We were able to get a bicycle for only \$50 twenty-five years ago. Don't tell me a Cadillac costs \$15,000 now! Somebody is crazy!" After all, a bicycle and a Cadillac can both be called a "vehicle".

A \$60,000 golf course built 25 or 30 years ago was a "push-up" golf course. No style; no mounded, contoured trapped greens built to USGA specifications; no contoured, irrigated fairways with good drainage and the latest grasses; little "tee boxes" instead of large contoured tees, etc. It was really a "place to hit a golf ball", not a challenging, beautiful golf course. You can still build a "push-up" course for about \$250,000 (plus \$80,000 worth of maintenance equipment, left out in the open to rust); and that's about the same rate of price increase that a loaf of bread has enjoyed.

So what does make a golf course cost so much? Demanding golfers do! They've been around more. They've played better golf courses in other cities. They've seen beautiful courses on television. It makes them want one, too! They're not content to ride a bicycle or a Volkswagen; they want a Cadillac! But we can't understand why the costs should be that much more.

Let's examine briefly the elements of cost of a golf course and see who and what are responsible for such extravagant expenditures - the architect, the contractor, and/or the members. The big costs come from three categories of work:

1. Clearing and "excavation and fill" (cut and fill), commonly referred to as "rough grading" and done by big bulldozers, scrapers, draglines, etc.
2. The watering system
3. The greens

The fairways, tees, and roughs are really not that expensive to condition and plant after the rough grading and contouring and watering system (items 1 and 2) have been completed. Disking, dragging, fertilizing, and planting are still essentially "farming operations", done with smaller tractors. If you're good enough or lucky enough to pick a piece of undulating, well-drained land with trees in just the right places, you can eliminate about 80% of the rough grading costs and save about \$250,000. If you must build on flat, heavily treed, poorly drained, or rocky property, you're going to have to spend a small fortune to make it into an acceptable, challenging, beautiful golf course. If there are no trees, you'll have to plant 500 to 1,000 of them, or create a "Scottish moor" type of course (which can be very handsome!). Or, you can just smooth out the existing terrain, plant grass, hope it grows, and start hitting the ball, if that is what you want.

Rough Grading

A good set of tees will require 500 to 1,000 cubic yards of fill per hole, depending on several factors. That's 10,000 to 20,000 cubic yards per golf course. To make good greens with side, back, and front mounds on flat terrain requires from 1,500 to 3,000 c.y. per green, or 30,000 to 60,000 c.y. per course. If you are on rolling terrain, the requirements are usually 50% less.

Each fairway bunker calls for 200 to 1,000 cubic yards of fill. Creating rolls or undulations on relatively flat land can require from 5,000 c.y. (just to get the water off!) to 30,000 c.y. per hole! A good range of fill requirements for fairway modification on relatively flat land is from 50,000 c.y. to 150,000 c.y.; and it is not uncommon, where affordable, for these figures to double. On extremely hilly land, such large cuts and fills may be mandatory, unless players are willing to have blind holes, steep climbs, and virtually stand on their heads to address the ball, etc.

Add it up! 90,000 cubic yards, or more! Unless you own the earth moving equipment or are able to find a very hungry contractor who is willing to do the work just to get his operators salaries and make payments on the equipment, you'll have to pay \$125,000 up to \$400,000 for "rough grading". This emphasizes the need for being more selective of the site for the course.

Watering System

That \$60,000 course you built 25 years or more ago had 2-inch lines down some of the fairways to water the greens and tees only. Occasionally a 3-inch line was installed with quick coupling valves; and sprinkler heads on roll stands were attached to the valves, via 100-foot rubber hoses, and parts of the fairways were watered. When you played, you fought the hoses all the way around the golf course. Not bad, however, with 50¢ per hour labor.

No more. We want "wall to wall" watering, a completely automatic watering system so computerized that it will tell you the date, the amount of watering time still to go, and the odds on the third race at Belmont! And we want to water at night, so we don't get wet while playing. "Whatdayamean - ya can't get laborers to water at night even at five dollars per hour!"

Single row watering systems with

sprinkler heads big enough to water not only the fairways but well into the roughs, eat up large quantities of water and require thousands of feet of 4", 7", and 8" pipe. Each electronic field controller costs about \$500 and requires literally miles of hydraulic tubing or electric wires, all of which must be carefully buried. This type of system costs from \$180,000 to \$240,000, depending on location, terrain, rocks or trees, and the mood of the bidders.

In windy areas, it is usually desirable to install a double row system to be sure everything is always green. And "it takes green to make green" — about 80% more than a single row system.

Oh, it's possible to cut drastically the costs of a watering system. Let the roughs be natural color; don't water the first 100 yards from tee to fairway, etc., etc. (See "Urban Land" - May 1980 - "Future Golf Courses - The Economy and the Ecology".) But what do you really want; and what are you willing to pay for?

The Greens

Fifty years ago, golf at country clubs was a sport and exercise. It still is, except the carts have taken most of the exercise out. But it has become far more popular with everyone, especially with women. The average number of rounds per week has probably doubled. "And we want smooth greens, like on T.V.; not those slow, bumpy kind with bare spots." Okay. So pay for them!

Until about 25 or 30 years ago, most greens were built by shaping an area to some sort of configuration, finding the best topsoil available and blending it with equal parts of sand, adding a little peat and planting it. For the first two or three years (long enough for the developer to sell out, or the contractor to leave the country), the greens held up well. Then the greens started failing. Disease, fungus, bare spots, "won't hold a shot", all started showing up.

"Must be something the superintendent is doing wrong", said the developer, the contractor, or the so-called "golf course architect". "They were great for even two or three years after we left." So they were, while they were compacting every time someone walked on them. Finally, the compaction was so great that air could not get to the grass roots, and the rest is history.

Thanks to the USGA, through its

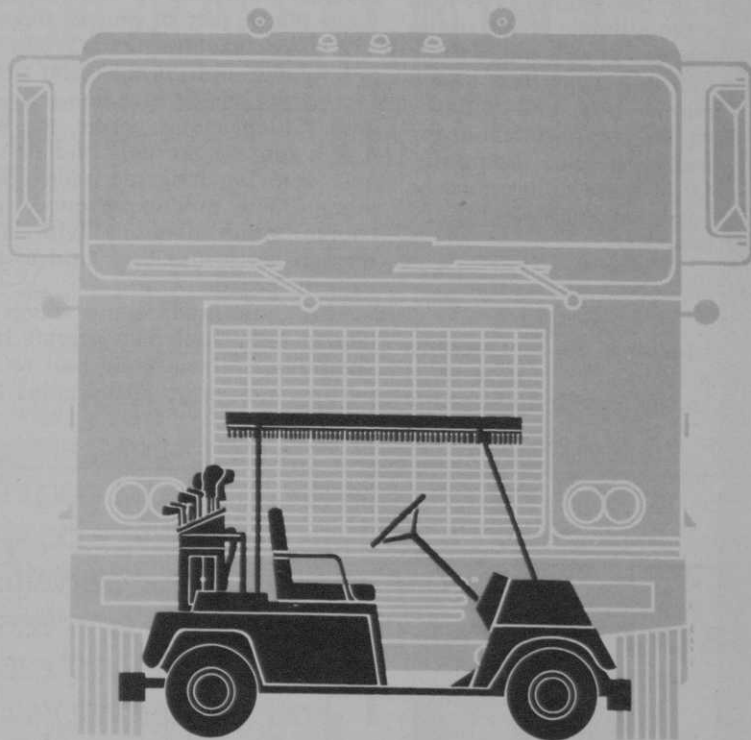
"Green Section", and to many universities, the problems were analyzed, and solved. Far more sand, a gravel blanket under the sand, sub-drains to remove excess water, etc. and the problems virtually disappeared. And so did the dollars! Today, a properly constructed green which will stand up to low mowing, high traffic, and adverse weather, costs from \$9,000 to \$12,000 each, or

up to \$240,000 or more per course. But good greens are the heart of any good golf course. This is not the place to economize.

What have we spent so far? Let's see:

1. Rough Grading	\$125-400,000
2. Watering System	\$180-440,000
3. Greens	\$180-240,000
Totals	\$485-1,080,000

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"Hey, we still don't have fairways, roughs, fairway drainage, bunkers, maintenance equipment, a maintenance barn, sand in the traps, a service road, cart paths, water fountains, restrooms - - - how do you expect us to play golf on something like this?"

I don't. Dig deeper! And if you think I'm going to design you a beautiful place to play golf "for free", you're nuts! The butcher, the baker, and the electricity-maker are already breathing down my neck! They need money for gasoline!

So you're looking at \$1 million up, probably up to \$1.5 million if you really want "class". But that's only \$3,000 per membership in a 500 member club. You'll still have to bring a picnic lunch because you forgot the clubhouse.

What can be done to reduce these ever rising costs before the game of golf meets the same fate as the 16 cylinder Cadillac? We can all do something, if we really want to.

What we can not do is:

- ◀ Change the cost of maintenance equipment, maintenance buildings (only slightly), sand, fertilizer, labor, sprinkler heads, electronic controllers, bulldozers, bricks, or lumber.
- ◀ On a given piece of extremely flat, extremely hilly, heavily wooded, or rocky terrain, wave a magic wand and end up with the Augusta National.

We can:

- ◀ Take a good look at what we *really* want in a golf course and what the members *can afford*. The golf course architect usually does *not* control the cost of the course to an extent more than 20 percent. He can't change the costs of the dozers, sand, sprinkler heads, or contractors' labor costs, any more than you can. He can (and some occasionally do) *oversell* the amount of earth moving necessary,

the area to be watered, the size of the greens, the number of traps, etc. But a competent golf course architect tries to reflect in his design the desires or necessities of the owner or members, tempered by the architect's experience with the end results in appearance, engineering, and agronomy, and not at all least - the game of golf.

Is it really necessary to have 60 to 160 sand traps? They're awfully pretty. But at \$1,500 per trap and \$200 plus per year maintenance, couldn't we really get by with 18 to 24 traps, strategically placed, along with tree traps, mounds, and grass bunkers?

Do you really have to have "wall to wall" watering? Would not a single row system with roughs of native or improved different grasses, actually give more "character" to the course? Do you have to water and maintain the first 100 yards of fairway? Where winds are significant, or where roughs crack badly when dry, could not a few extra sprinkler heads be placed in the important hitting areas instead of trying to maintain verdant roughs from tee to green? Remember, water is growing more critical every day, and pumping charges are eternally higher.

Do you have to see the ball land on every shot? Could you not walk up a 10 or 12 percent slope once in a while if it were not too long (chances are you're in a golf cart anyhow), or do you insist on easy slopes?

Your golf course architect can only do so much by changing his design.

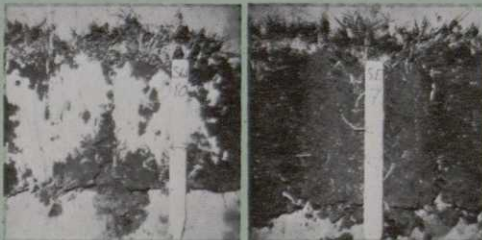
It's possible to reduce costs only so far by reducing the amount of cut and fill, size of greens, and sand traps, until your new "country club" course begins to look like the old one, with bare fairways, hard greens that go out with the first heat wave, etc., at a cost ten to twenty times more. Granted, a good architect will get you a lot more for your money than a mediocre one, a part-timer architect, or a touring pro. That's his business.

You are the only ones who can reduce golf course construction costs. Get together with a good golf course architect and find out what basic costs cannot be reduced significantly, and what costs are being added solely because of your desires to "keep up with the Jones"! (No pun intended, Trent!) If you can afford it, fine! But don't blame the architect if you want a Cadillac for a Chevy price.

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