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HOW GOLF COURSE ARCHITECTS CONSERVE WATER

Water conservation is one of the most talked about topics these days in golf circles. And it seems that every meeting I go to concerning this topic makes me even more aware of future ramifications to the golf industry.

Conservation is a joint task that involves the cooperative efforts of golf course architects, irrigation designers, superintendents, and manufacturers. Golfers can also help in this effort by curbing – or flat out eliminating – their insatiable demands for consistent and lush conditions.

Golf course architects select turf types for drought tolerance, design tree areas in clumps for easier drip irrigation, and logically size the irrigation storage pond to balance evaporation loss against storage needs. However, some would argue that the biggest contribution is in reducing turf acreage.

However, turf reduction isn't simple, and to do it correctly, we consider many things:

SPRAY PATTERNS -SPRINKLERS. In most cases, we retrofit turf edges to existing sprinklers.

Luckily, the typical 65-foot to 75-foot spacing works well to set up some nicely flowing curves. However, picking the right ones balancing all the factors below requires in field study.

If the project calls for a completely new irrigation system or revisions, we coordinate with the irrigation designer. The irrigation designer provides an initial “wall-to-wall layout”, and we prepare our preliminary turf reduction plan.

For the next step, we compare them and adjust both sprinklers and turf edges to perfect the plan work, considering using full- or part-circle sprinklers on the edges, wind and traffic patterns, etc.

SPRAY PATTERNS – GOLFERS!

The average golfer’s “golf shots gone wild” require balance between reducing turf and providing comfortable playing areas for enjoyment and pace of play, knowing that virtually any spot on the course may be an unintended landing zone.

For example, about 90 percent of shots land within 15 degrees of either

maximum carries at about two-thirds of total driving distance expected from typical players on the gold, blue, white and red – or any others – or:

- 178 yards for 270-plus-yard drivers
- 158 yards for 240-yard drivers
- 138 yards for 210-yard drivers
- 118 yards for 180-yard drivers
- 100 yards for 150-yard drivers
- 80 yards for 120-yard drivers

We reduced irrigated turf by 30 percent, substituting as appropriate, native wildflower mixes, bark mulch and drought tolerant salt grass in those areas. We did introduce some forced carries and members and guests do notice a few more lost golf balls, but play remains reasonably paced.

side of the intended line of play with the slice side seeing more misses than the hook side. I strive – but often fall short – to attain turf about 30 degrees wide in main landing zones from 180 yards to 240 yards. I narrow it near the tee and for the 1 percent of long hitters to save turf and encourage less wild play. That translates to about width of 70-90 yards for most players.

Keep in mind that, statistically, almost one tee shot per foursome per hole is “duffed” in some fashion, suggesting limited forced carries for average golfers. It’s usually advisable to avoid/limit forced carries from forward tees, which often leads to new, shorter tees being built at the same time.

However, carry limits should be reasonable for all golfers.

In headwinds, even some Tour Pros have trouble carrying 200 yards. And, knowing that most top amateur and local pro events set the course up to NOT embarrass the shortest hitting competitors, I generally set average

CART PATH ACCESS. It’s easy to use natives just outside the path. However, it should be noted that natives can hide paths and fit landforms better if they intertwine with it, as long as wide access points to the fairway and tees are in logical locations.

AESTHETICS. Turf lines can look naturalistic on plan, but jagged viewed on the ground. I always field review the proposed native lines to make sure it works aesthetically.

While renovating La Costa Champions Course last year, our design team implemented a turf plan as part of the renovation.

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This is the golf course of the future, but it requires some new thinking to achieve great results. **GCI**