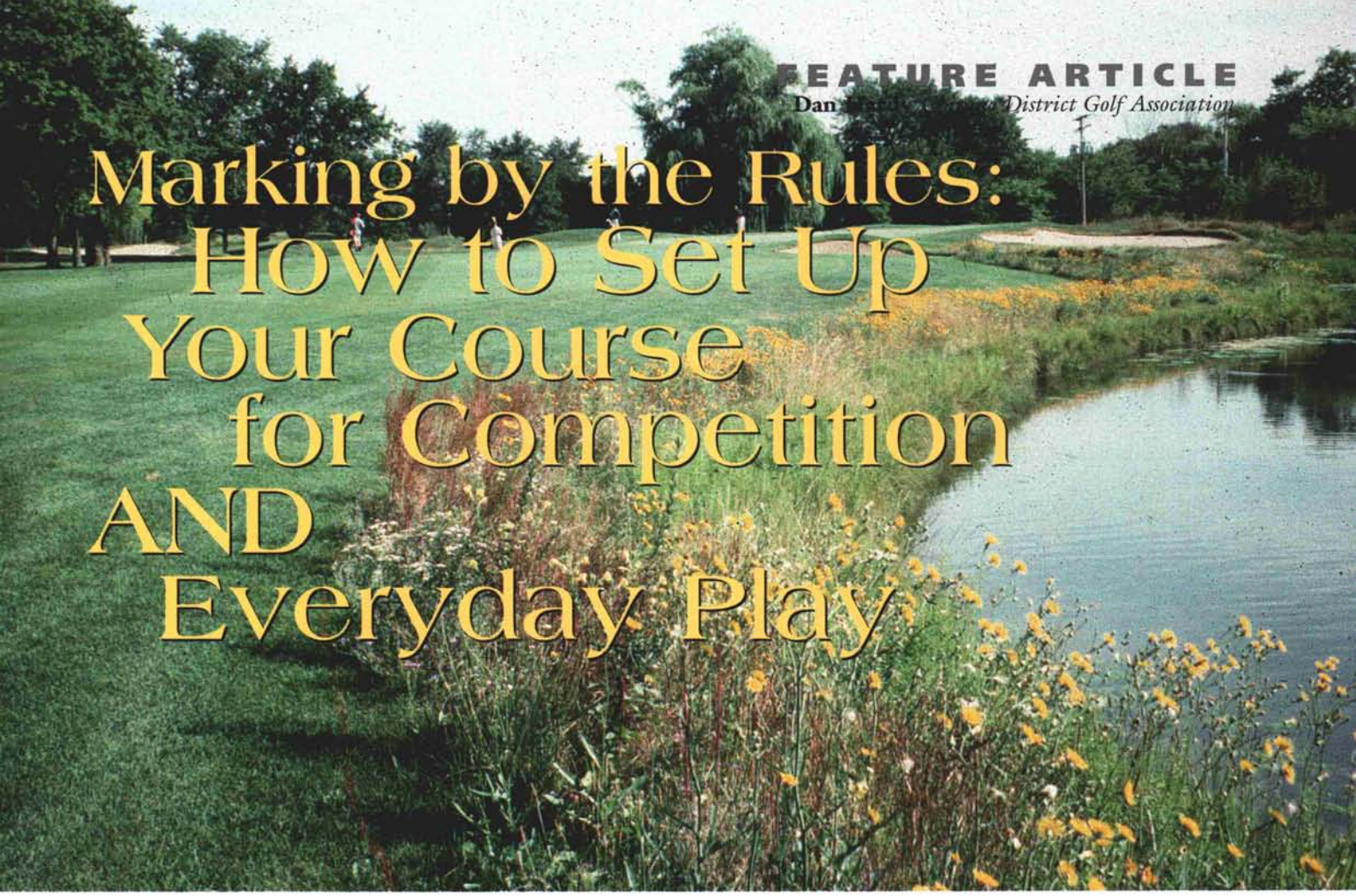

FEATURE ARTICLE

Dan [illegible] *District Golf Association*

Marking by the Rules: How to Set Up Your Course for Competition AND Everyday Play

Imagine going to a football game and the players take to a field with no sidelines or yard lines. Are the players on the field really playing football? Similarly, picture a tennis match with no lines defining the boundaries of the court. If this actually happened at a football game or tennis event, the players in each sport would have an extremely difficult time playing by the rules.

In this analogy, the game of golf is no exception. In order for a golf course to be ready for competition, it must be marked and boundaries clearly defined. The committee in charge of play (usually the golf course superintendent and PGA professional) must ensure that the course has been properly marked and any special Rules situations accounted for.

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Marking a golf course completely and properly can be an arduous task. However, defining the boundaries, hazards and abnormal conditions can relieve the committee from addressing any potential conflicts or questions that might otherwise arise. The following are some general guidelines for marking and setting up a golf course for competition and everyday play.

What's Out-of-Bounds?

Defining the boundaries of the golf course is clearly one of the most important tasks for the committee. In most cases, the property line of the golf course defines the out-of-bounds. If this is the case, a fence sometimes accompanies the property line. When a fence defines the boundary, the golf course edge of the fence posts determines the out-of-bounds line. Otherwise, the committee must define the boundaries of the golf course with white stakes and/or a white line.

(continued on page 12)

 (continued from page 11)

It is a common misconception that areas within the property line of the course should not be defined as out-of-bounds. It is perfectly acceptable to mark clubhouses, tennis courts and parking lots as out-of-bounds. It is also permissible to establish out-of-bounds between two holes for safety reasons or to maintain the integrity of a given hole.

When using white stakes to define out-of-bounds, it is suggested to place them a minimum of 30 yards apart. At times it is necessary to place the stakes closer together to afford a line of sight from stake to stake. This is the most essential, and most overlooked, factor when defining out-of-bounds. If a boundary line makes many turns, it is suggested to tie the stakes in with a white painted line rather than pounding in hundreds of stakes. Not only will this save time, but it also erases any ambiguity about whether a ball is in or out-of-bounds. Marking out-of-bounds can take an extensive amount of time and effort, but in most cases it is much more straightforward than differentiating and defining water hazards or declaring areas as abnormal ground conditions.

The Wherefores of Water Hazards

There are two types of water hazards: lateral water hazards, marked with red stakes and lines, and regular water hazards, marked with yellow stakes and lines. The principal task when marking a golf course is determining if the hazard should be defined as a lateral or a regular water hazard. In order to do this effectively, the person marking the hazard must have a firm understanding of the options available to a player under Rule 26. A basic guideline to follow for lateral water hazards is this: the body of water must be situated so that it is not possible for a player to drop a ball behind the hazard *and* keep the point at which the ball last crossed the margin of the hazard between the hole and the spot on which the ball is dropped. An example of this might be a creek that runs parallel to the hole where the terrain on the opposite margin is heavily wooded. In such a case, a player would have to use the stroke and distance option unless the creek was defined as a lateral hazard.

Once the committee has designated whether a water hazard shall be considered lateral or regular, it is time to mark the hazards with stakes and painted lines. It is essential to paint red or yellow lines to indicate the margin of the hazard because players must be able to determine the specific point where the ball last crossed the margin of the hazard in order to proceed correctly under the Rules. The lines should be painted so that they include in the hazard not only the water, but also the bank and the unkempt growth related to the hazard. This is most often accomplished by placing the line where the ground breaks to form the boundary of the hazard. Also, bushes or trees with roots immediately adjacent to the natural margin of the hazard should be included in the hazard. Otherwise, a player whose ball entered the hazard in this area would not have a reasonable place to drop a ball. It is unfair to penalize players twice by having a poorly marked hazard that does not afford the player a sufficient place to drop a ball.

Generally speaking, when marking water hazards it is best that stakes should be used to identify the hazard and lines should be used to define the margins of the hazard. If a body of water is considered both a regular and a lateral hazard, then a red and yellow stake should be placed side by side to indicate where the hazard changes from regular to lateral (see photo below). In other rare occasions, a water hazard is considered environmentally protected. The criteria for marking and defining these areas are slightly different from regular and lateral water hazards.

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Environmentally Sensitive Areas (ESAs)

In exceptional instances, a governmental authority such as the Army Corps of Engineers or the Environmental Protection Agency will declare wetlands or other parts of the golf course as Environmentally Sensitive Areas (ESAs). If ESAs pre-

sent on the course are defined as water hazards, it is recommended that adequate signage and barriers to entry be posted around the area. Also, to differentiate ESAs from other hazards, it is important to paint the tops of the stakes green.

Sometimes, certain areas of some golf courses are mistaken for or mis-marked as water hazards or environmental areas. In most cases, these are "natural" or "no-mow" areas that the golf course has grown out for aesthetic purposes. In most cases, the areas are left to grow with native grasses and plants that serve to beautify the course and provide sanctuary for birds and other animals. These areas, unless they are immediately adjacent to a hazard, should be left unmarked and considered "through the green." (See photo above.)

Areas on the golf course that are not ESAs but that the committee would like protected from players can be addressed in the Local Rules sheet. Flower beds and young trees are two examples of where the committee

(continued on page 14)

 (continued from page 13)

may wish to prohibit players from playing a stroke if the swing or stance might interfere and damage a flower or tree. The committee must be sure to mark the trees or flower beds with a painted line or stake and indicate on the rule sheet how the players should proceed if they are interfered with by these conditions.

Abnormal ground conditions, such as ground under repair, also require consideration from the committee in charge of course marking and set-up. Before marking any ground under repair, it is vital to tour and thoroughly scrutinize the entire golf course. The reason for this is, with ground under repair it is better to be certain of the areas that need to be marked *before* anything is marked. Generally speaking, it is preferable to be conservative with the markings than to have little white circles all over the course. Bare spots in the rough are, in most cases, not abnormal and thus should not be marked. The person most qualified to mark ground under repair is nearly always the superintendent, as he or she is familiar with any construction or other abnormal conditions on the golf course. Areas that are freshly sodded or seeded should be identified and a Local Rule written that prohibits play from these areas.

Marking a golf course can take a great deal of time and effort. Ultimately it is time well spent, because a golf course that is properly and thoroughly marked, whether for tournament play or everyday play, helps all golfers adhere to the Rules of Golf. Marking areas clearly and correctly can also serve to speed up the pace of play by eliminating ambiguities as to whether a ball is out of bounds, in a hazard or in an abnormal ground condition. Simply put, golf courses should be marked at all times to give every golfer the ability to play by the Rules.

Dan Hardy is the director of rules and competitions for the CDGA.

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Scott Speiden *Itasca Country Club*

Low-Voltage Lighting: The Other White Light

I am a far cry from an expert at lights. But I can and will tell you what I have learned from my recent experience at installing landscape lighting.

Some background: my club decided to install new lights throughout the front entrance. Before this recent installation, I was under the assumption that low voltage was either very expensive or you had to install fixtures such as Malibu lights—not exactly what the club was looking for. When I started receiving quotes from electrical companies, I was shocked at the reasonable prices for the lights. A friend informed me that low-voltage lights were attractive and easy to install, as well as having many benefits other landscape lighting doesn't offer.

This is an adjustable ground-installed light. It would be used for lighting signs, walls, etc.

The Lowdown on Low-Voltage

A lot of companies sell materials and fixtures to do low-voltage lighting. Top-quality companies will sell these materials at a more expensive price tag. I believe you get what you pay for. If you are looking for quality, you will probably be paying a little bit more for it. The options and many styles of lights offered on the market today are exciting. All are constructed of die-cast aluminum and come in your choice of many colors and designs. Depending on what atmosphere you are trying to create in your landscape design, low-voltage lighting can be used for:

This is a fixed ground light. It would be used to light trees, shrubs, etc.

- Up and accent lighting, floodlights, in-ground and well lights. Perfect for the highlighting of trees, shrubs, gardens and architectural features like the exterior walls of buildings and artwork. These lights create drama and draw attention to focal points that would normally be lost or go unseen in the dark of night.
- Path and spread lights. Used to illuminate dark areas along walkways, paths, decks and steps. Lighting in this manner increases safety by reducing risk of injury around these areas. Path and spread lighting also serves as a directional feature along front drives or entranceways, leading customers and guests to a main door or point of attraction, without the glare of traditional floodlights.
- Underwater lights. Used to enhance the beauty of a pond, fountain, waterfall or any other body of water. These fixtures draw attention to your water feature by dramatically lighting it from above with floating lights or below with submersible lights. Use in combination with other lighting techniques to create dramatic effects.

Low-voltage lighting has many benefits. Low-voltage systems are safe and

(continued on page 20)

energy-efficient. These systems convert an ordinary 120-volt current to a safe 12-volt current. There is no risk of electrical shock if the cable were to be accidentally cut. Economically speaking, too, low-voltage lamps consume less energy compared to 120-volt lamps, and last much longer. Low-voltage lighting is also cost-effective. A 12-volt lighting system can cost up to three times less to operate than a 120-volt system. Lamps use less wattage and still provide comparable performance to higher-wattage lamps. With the large selection of designs to choose from, many fixtures can be discrete to the eye, hidden in the landscape to provide maximum illumination without the fixture itself being visible. Automatic operation is also a major bonus. These low-voltage systems can be easily automated. Your landscape lighting can come on at dusk and shut off at dawn, or any hour desired.

Simple Installation

To install the low-voltage lights is very simple. A pipe puller or two people with spade shovels will be needed to do the job. Low-voltage cable can be buried in a shallow trench or even run on top of the ground, under groundcover or mulch. The cable does not need to run through conduit or be buried deep in the ground. I found that burying the wire approximately 8″ to 12″ in the ground worked best for us. Where the light is to be located, you pull a loop, for use later in the job (see Figure 1). Continue to pull the wire to your desired location.

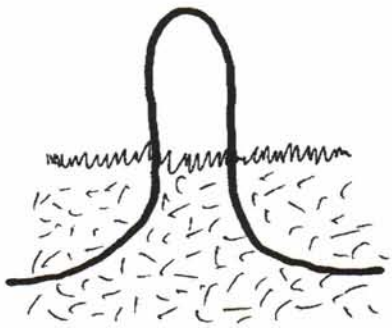

Figure 1

Figure 2

To install the lights, simply use a post-hole digger and dig a hole to the desired depth of the light fixture. Cut the wires (loop) (see Figure 2). From there, you simply have to perform these tasks.

This light is used to light sidewalks, driveways, etc.

- Connect the wires.
- Set the fixture.
- Adjust light, as needed.
- Backfill the light.

A low-voltage system is flexible, allowing more fixtures to alter lighting effects. Next, figure the total wattage for the area and the length of wire that needs to be run for the job. Some Web pages have a calculator that will help you figure this out. If too many lights are being powered by a single transformer, or if a cable is run too long, noticeable voltage drop may occur. To minimize voltage drop from occurring, try:

- Shortening cable lengths.
- Reducing individual fixture wattages.
- Reducing the number of fixtures on a run.
- Using multiple transformers or a higher-rated transformer.
- Using a heavier gauge wire.

Low-voltage systems require the use of a transformer to reduce standard 120-volt power to 12 volts. To determine the transformer size, add up the wattages of all the lamps that you plan to use. A transformer is then selected that matches as closely as possible to the total lamp wattage. As a rule of thumb, the total lamp load should not be less than one-third the transformer's wattage rating, nor shall it exceed its maximum watt capacity.

This light allows downward illumination from a tree or building.