

Drainage along cart paths: How to beat the sheet-flow

BY TERRY BUCHEN

WILLIAMSBURG, Va. — Existing golf courses, in most cases, add drainage each and every year, usually because of compaction and trees that keep growing and providing more shade while blocking air movement.

One of the hardest areas to drain properly is next to cart paths, as water "sheet-flows" over the top and then "dumps" into low-lying ground, sometimes with little or no place to go quickly.

The channel drain is starting to gain in popularity with superintendents and course builders. It was originally designed for use in commercial landscaping to help drain along sidewalks and within formal landscape areas. Channel drainage grates come in black, green, gray, sand and brick colors to help them blend.

In many new course projects, the paths are put in first, then the builder finish-grades around them so surface water will flow over the top properly and so the golfer will not feel a bumping sensation when a car enters/exits the cart path anywhere around the course.

The builder sometimes adds a few channel drains during construction as a precaution, and superintendents will add them as needed in the future. Black-colored channel drains obviously blend in better when asphalt cart paths are used; they can be easily mowed over with any type of rough mowing equipment.

Many newer courses have extensive drainage systems on every hole, a series of 6- to 8-inch (or sometimes larger) main lines along with a multitude of lateral lines, each measuring usually 4 inches in diameter. Many newer courses use non-perforated PVC or ADS drain pipe for main lines and 4-inch perforated drainage laterals for greens, bunkers and miscellaneous areas around the course. Main lines usually have larger catch basins, in the 24-inch diameter variety, whereas lateral-line catch basins usually are the 12-inch square sizing. Because of the vast variety of pipe sizing and convenience of having drainage usually close by, the newer courses find it much easier to add the 3-inch channel drain opening into any 4-inch riser.

After the channel drains are installed alongside asphalt cart paths, asphalt cold



An effective way to help alleviate the problems associated with heavy rains over cart paths.

patch material is usually used to fill in the gaps. Heating up the cold patch with a portable propane torch — then compacting it with a hand tamper — works best to blend in the two different asphalt surfaces. Motorized, vibrating compacting machines also work real well.

The top of the grates are removed by taking out a few screws, so cleaning is easy. On top of the 3-inch vertical hub outlet is a plastic screen that helps keep debris from going into the piping. Many times these plastic screens are perma-

nently removed because the plastic grate performs the same function and it reduces the water flow too much, requiring unnecessary extra cleaning.

Channel drains are even used in areas in the roughs where water sheet flows in such a manner that a larger catch basin might not work as well.

Channel drains, along with the grate, come in 2-foot-long sections that can be easily attached end-to-end and come in the shape of Ts, elbows, crosses and 1/8 bends.

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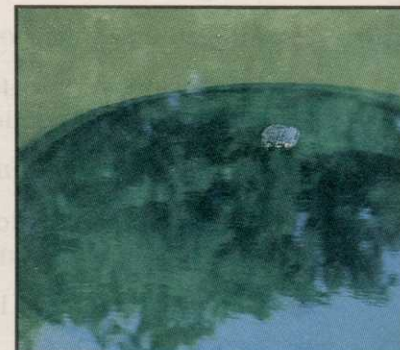
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