

# Growing Superstar Roots

Celebrity's LEED Platinum golf course applies hydromulches to improve drainage, create serene greens

By Tom Wedegaertner

It is no secret of the stars that when visiting Memphis, Tenn., one can enjoy a stellar golf experience at Mirimichi Golf Course. The once dilapidated course, then known as Big Creek Golf Course, was purchased by pop star and avid golfer Justin Timberlake in 2007 and redeveloped into the first golf course to earn Platinum certification from the U.S. Green Building Council Leadership in Energy and Environmental Design (LEED) program, the highest honor available for sustainable design.

a natural, sustainable space. It took the entertainer and his team two years and \$16 million to fulfill their revamp visions for the 303-acre course.

To obtain the LEED Platinum certification, the products used on the project site had to exhibit high “green” standards. This included those products used to control erosion and establish vegetation for the course’s trademark ambiance—its lush fairways, scenic vistas, four waterfalls, six lakes and two meandering streams, for example.

## Specification

One of the first orders of business for the renovation was temporary stabilization and permanent revegetation of the newly graded areas surrounding the course. After an initial evaluation, and in keeping with the goal of LEED certification, Mirimichi worked with Blake Ann Elliott, the Tennessee representative for Jen-Hill Construction Materials, Hendersonville, Tenn., to analyze the site and select the proper erosion control solutions.

Project engineers selected two hydraulically applied mulches, North American Green’s HydraCM Steep Slope Matrix and GeoSkin straw and cotton plant material hydromulch. While the mulches were attractive to engineers because of the straw and cotton plant components, they also are manufactured regionally—within an acceptable distance to comply with

LEED standards—and can establish vegetation quickly and effectively to control the erosion often brought on by harsh Southern rainstorms.

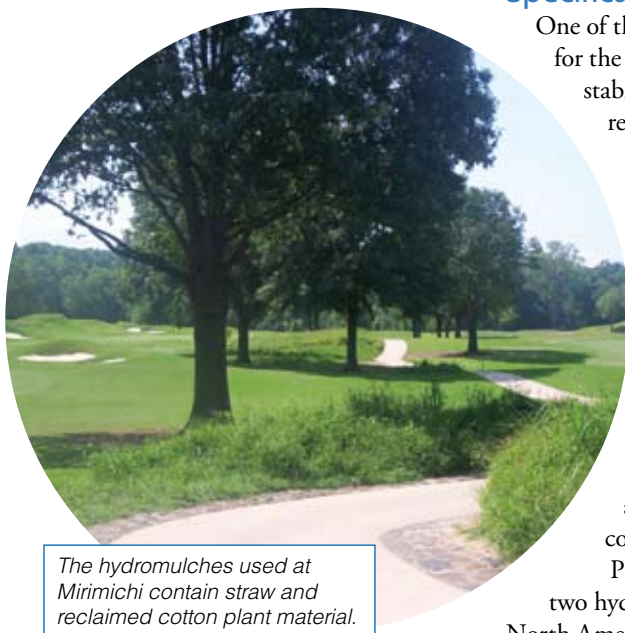
## Installation

Starting in April 2009, workers applied the hydromulches to areas of the course that needed to be naturalized with native species. With Mirimichi’s grand opening slated for July 2009, project leaders had just a few months to bring the land back to its most natural state.

HydraCM hydromulch was applied to the steeper sloping areas, and GeoSkin hydromulch was applied to more moderately flat areas. The products were mixed in a mechanically agitated hydroseeding tank and applied in a one-step process by which the seed was mixed and applied with the mulch.

The mulches were mixed at a ratio of 50 lb of mulch to 100 gal of water. This ratio allows the contractor more mulch product per tank load, thus reducing the overall installation time. A reduced installation time ultimately provides time and cost savings to the contractor, which can create opportunities for increased revenue.

HydraCM was applied at a rate of 3,000 lb/acre over about 15 acres, and GeoSkin was applied at 2,000 lb/acre over 22 acres. Because both solutions are intended for temporary erosion control, contractors stabilized the slopes for the long term using natural plant species that would be low maintenance yet beautiful for those experiencing the golf course’s greens. A wide variety of wildflowers, lovegrass and other natives were used to protect the slopes.



The hydromulches used at Mirimichi contain straw and reclaimed cotton plant material.

Mirimichi, meaning “place of happy retreat,” is a public, 18-hole golf course located in Millington, Tenn., 15 minutes north of Memphis. Timberlake’s vision was to offer players the highest-quality golfing experience while maintaining



## How It Works

Developed by Mulch and Seed Innovations LLC, Centre, Ala., along with Cotton Inc., the solutions applied are hydraulic erosion control products made with mechanically processed straw fibers and reclaimed cotton plant material.

“These hydromulches have been designed for water retention in the seedbed and allow rainfall to trickle down into the soil through the porous interlocking matrix so that water and nutrients can be taken up by the roots of emerging vegetation,” said Wae Ellis, vice president of sales and marketing for Mulch and Seed Innovations. “It is our intention to avoid excessive water retention within the mulch layer, thereby encouraging the roots to become well established in the soil. It is also important that the material does not wick moisture away from the root zone during drought conditions.”

Featuring post-industrial waste from the cotton ginning process, the cotton plant material is a new reclaimed option that has proven to be an effective and sustainable alternative to virgin wood and recycled paper, which previously have dominated the erosion control industry.

## Performing Up to Par

Within weeks of the application, Mirimichi was greening nicely both on and off of the course. The naturalized areas were such a success that the course was honored by the Audubon Intl. with a Classic Sanctuary classification, the first U.S. project to receive such an honor. This classification is awarded to renovation or restoration projects that add and integrate wildlife conservation; habitat restoration and enhancement; water conservation and water quality protection; and other areas of environmental protection and improvement.

“Being a part of the success at Mirimichi is monumental to the redevelopment and revitalization of the Memphis metro area,” Elliott said.

With the success of the project to date, Mirimichi has plans to expand its green offerings, including adding a second 18-hole course. Management also plans to incorporate additional sustainable products and technologies as Mirimichi grows. For now, however, they are simply letting Mother Nature take her course. **SWS**

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