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SYNTHETIC TURF: TOTAL GLUE-DOWNS ARE JUSTIFIABLY COMING BACK

Total glue-down by spraying



Total glue-down by squeegee



Loose-laid narrow seams over stone



Synthetic turf technology has greatly improved with time. It is called "progress" and the word is synonymous with change and improvements. While better in many ways over the old ones, these new turf systems also have their own problems, which we think could be solved by total glue-down instead of loose-laying turf. More people are realizing that the higher quality and higher initial cost of a total glue-down is worth it in the short run and even more so in the long run.

HISTORY - In the late 1960's and early 1970's, artificial grass/synthetic turf began to make its mark as an alternative surface in areas where natural grass could not perform such as: a) athletic fields - especially after bad weather or heavily used fields, b) in high foot traffic areas without athletic activities, c) when maintenance is a hazard like highway median strips, d) in areas where grass growing is a problem such as: the desert, boat docks, around swimming pools and areas devoid of sunlight.

In the beginning, most good synthetic turf installations were totally glued-down on both hard surfaces or flexible shock absorbent bases. However, there were problems with the older turf systems (not related to the adhesive) so a slow evolution began to take place, which eventually led to new and better synthetic turfs; loose-laying the turf over crushed stones instead of gluing to a uniform sub-surface; by simply gluing only 6 inches or less of each side of the turf to seaming tape or even less joining area by sewing (called loose-laying). Then sand and/or rubber granules (called infill) is sprinkled or combed between the grass blades. The newer loose-laid systems with infill have their benefits but the major reason for their selection over total glue downs is their much lower price but not better performance.

Even when infill continues to be used, we think that many of the problems and expenses of repairing loose-laid systems could be prevented and/or avoided if the 15 foot wide turf rolls were totally glued down to a hard or shock absorbent sub-surface.

LOOSE-LAY SEAMS ARE THE BIG BAD WOLF -

Artificial turf surfaces that are used for athletic fields, playgrounds, landscaping and other applications, are basically rolls of engineered high-tech carpet joined to make one piece that covers the entire surface. In trade jargon, the joining is called "seaming". Additional seams are created by purposely cutting or shaving the turf in order to insert lines, logos, numbers and different colored turfs.

An artificial turf surface is only as good as its joined seams because, **historically seams are the weakest link of a good synthetic turf installation**. Hence, from a seam standpoint, total glue downs are by far the best because high stress from athletic activities, maintenance vehicles, dimensional turf movement such as

expansion and/or contraction due to hourly and day-to-day changes in weather conditions (hot, cold, wet, dry, wind, etc.) are distributed over the entire installation instead of concentrating it only at narrowly joined seams like loose-lay installations. Total glue downs also prevent game line movement ("dancing lines" in trade jargon).

Whether they are 15 foot wide turf rolls or smaller inserts, strong and tightly bonded seams are **essential** not only for aesthetic purposes, but also to avoid injuries from dangerous installations and hazards like tripping or other injuries due to an open seam or shifting turf.

While the types of loose-lay installations that fill the turf matrix with sand and/or rubber granules hold the turf down due to gravity, they do not eliminate either lateral seam stresses and/or line

movement. Also, infill does not hold the turf down when wind gets under the loose-laid turf, causing the turf to act like a sail. A seam break, whether it be accidental due to high stress or an intentionally cut sewn seam by vandals, can cause a completely loose field. Hence, instead of a small localized and easily fixable seam problem of a total glue down, it is often a major problem with a loose-lay. Also, thieves can cut and

remove large sections of loose-laid turf for their home use or to disrupt an upcoming event.

It was easy to remember the problems with the older systems, especially when new problems with the loose-lay systems had not had enough time to surface. It's no longer the case now that the aging problems of loose-laid installation have surfaced such as: broken or unraveled seams resulting in the entire installation being loose; infill getting underneath cut turf or open seams which must first be removed before repairs; shifting lines, numbers, logos, etc. due to expansion, contraction or machinery moving on the turf; vandalism, such as cutting sewn or glued loose-laid seams; and thievery by cutting and removing a large section of turf.

VALUE SUMMARY BY ANALOGY - We think total glue-downs are gold and loose-lays are silver.

“Total glue-downs
are **gold** and loose-lays
are **silver**”



Norris Legue is a chemist and President of Synthetic Surfaces Inc. (www.nordot.com). In about 1969, he invented the first urethane adhesive that was used successfully to install synthetic turf athletic fields. His company's new generations of NORDOT™ Adhesives are used to install synthetic turf more than any other adhesive in the world. His peers have dubbed him the "Guru of Glue™".



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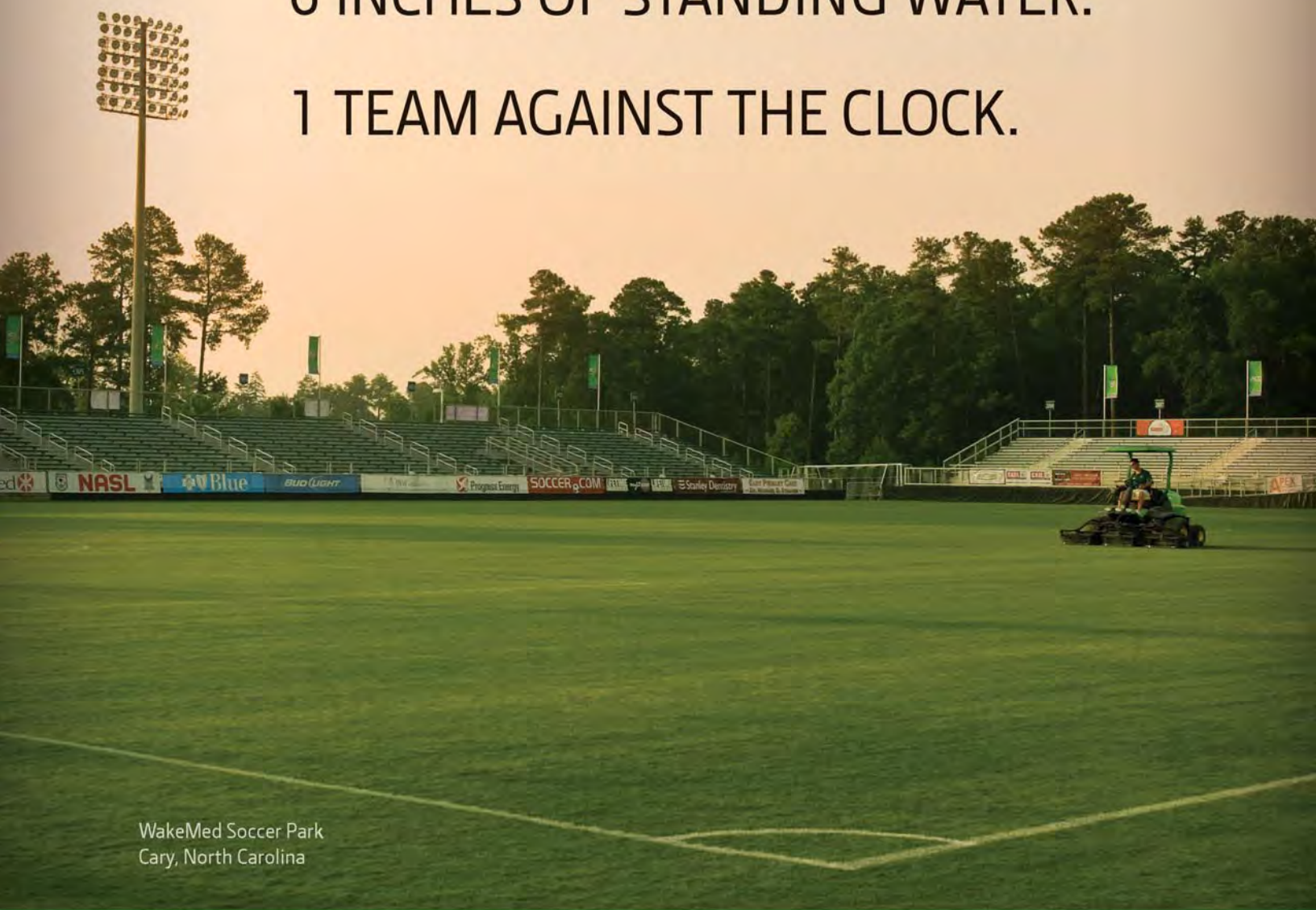
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On the cover: Located 20 miles south of Los Angeles, Long Beach offers visitors oceanfront hotels, attractions, shopping, recreational activities, art and culture, restaurants and nightly entertainment.

1 TORNADO.
6 INCHES OF STANDING WATER.
1 TEAM AGAINST THE CLOCK.



WakeMed Soccer Park
Cary, North Carolina

April 16, 2011. A tornado ripped through Wake County in North Carolina leaving this field underwater. Thanks to the rigorous focus on safety and excellence of the Town of Cary's Sports Turf team, play went off on schedule three hours later. Get the whole story. Scan here to watch how Cary works with its local John Deere dealer on Sports Turf solutions.



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From the Sidelines



Eric Schroder
Editor

eschroder@m2media360.com

717-805-4197

No escape from Mother Nature

MY LOCAL DOUBLE A HARRISBURG SENATORS made the Eastern League playoffs last summer and earned some home games at cozy Metro Bank Park, which sits on an island in the middle of the Susquehanna River. Tropical Storm Lee had other plans however and unleashed enough rain in early September to cause serious river flooding, forcing their entire playoff series to be contested in Richmond, VA.

The Mid-Atlantic region has seen record rainfall this year and it's not over yet. Plenty of fields have suffered damage and anyone relying on natural drainage has seen a ton of wet ground for months. The sun was a stranger for sustained stretches here.

Over-the-top weather across our country has been relentless for so many seasons now that perhaps we should start considering the new normal is intense weather and lots of it. Hurricanes, tornadoes, floods, wildfires, earthquakes—it seems like most of America has been nailed by an uncontrollable fit of nature over the past few years.

In Texas the scourge has been drought. I asked Jim Wiggins, a good friend of this magazine and the athletic grounds supervisor for the Tomball School District, north of Houston, how bad has it been?

“It has been real bummer of a summer down here! Since April 15 until last weekend (when we received 3 inches) our total rain has been 10.5 inches. We have been on water rationing all summer and with the opening of our second high school in August we have really had to plot and plan to get the eight new fields adequate water,” he replied.

“We are able to irrigate and have been all summer and with some help from the MUD district at the new school. We have somehow made it through these harsh times. We set records almost daily and weekly for highest temps ever, 31 days of over 100 degrees, set the record for consecutive 100-degree days at 24 days, and was the driest summer of all time with 5.60 inches received from May through September.

“We also set the record for the all-time hottest day in city history August 27 with a high of 109 and a low of 81. Overall our 28 fields have made it through these radical days, [but] it was really tough at the new high school because they had just been sprigged in early spring and were still in a grow-in period. Even with rationing we used about 1.7 million gallons in August on those eight fields. Thank goodness for our Hunter Irrigation systems they have helped us make it through these 5 months and counting of drought.

“We just need to have all the rain systems this winter pushed down here to our Texas coastline or I have to learn to do a better rain dance to keep our energy [police] off our backs.”

Life ain't fair or certainly some of the rain we've had here back East would have found its way west. A lot of you put in mucho hours battling Mother Nature's effects and should be recognized for it though I realize most of you aren't. It's a “hope for the best, prepare for the worst” world.

SportsTurf

1030 W. Higgins Road
Suite 230
Park Ridge, IL 60068
Phone 847-720-5600
Fax 847-720-5601

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MANAGERS ASSOCIATION

PRESIDENT: Troy Smith, CSFM
IMMEDIATE PAST PRESIDENT: Chris Calcaterra, M.Ed., CSFM, CPRP
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STMA Office
805 New Hampshire Suite E
Lawrence, Ks 66044
Phone 800-323-3875 Fax 800-366-0391
Email STMAinfo@STMA.org
www.STMA.org

Editorial

EXECUTIVE VICE PRESIDENT Charles Forman
EDITOR Eric Schroder
TECHNICAL EDITOR Dr. James Brosnan
ART DIRECTOR Brian Snook
PRODUCTION MANAGER Karen Kalinyak
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STMA Editorial Communications Committee

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Member of BPA Worldwide.

President's Message

Troy Smith,
CSFM

troy.smith@broncos.nfl.net



M2MEDIA360 PRESIDENT/CEO

Marion Minor

VP OF FINANCE AND OPERATIONS

Gerald Winkel

VP OF CIRCULATION AND COLLATERAL SALES

Joanne Juda-Prainito

PRODUCTION & OPERATIONS DIRECTOR

Mary Jo Tomei

DIRECT MAIL LIST SALES

Cheryl Naughton 678-292-6054
cnaughton@m2media360.com

SUBSCRIPTION SERVICES

Phone 845-856-2229 Fax 845-856-5822

REPRINTS

Cheryl Naughton 678-292-6054
cnaughton@m2media360.com

Account Representatives:

Joy Gariepy

16267 W. 14 Mile Rd., Ste 202
Beverly Hills, MI 48025 • Ph: 248-530-0300,
ext. 1401
jgariepy@m2media360.com

Bruce Loria

626 Wilshire Blvd., Ste 500
Los Angeles, CA 90017 • Ph: 213-596-7226
bloria@m2media360.com

Classified Sales/Marketplace:

Glenn Datz

Phone: 213-596-7220
Fax: 213-624-0997
gdatz@m2media360.com

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Looking forward to Long Beach

AS REGIONALLY COLDER WEATHER BEGINS TO SETTLE IN, I am reminded that winter is coming upon us quickly. By January, the conference in Long Beach will be a welcome change of temperature and scenery! Long Beach has so much to offer to our attendees. Besides the weather and the beautiful, very long beach, the city is full of culture, great venues and entertainment. We detail what you can expect to see and do outside of the conference in Long Beach, see page 30.

I hope that you have spent some time reviewing the excellent program that Conference Education Chair Pam Sherratt, Tour Chair Jeff Salmond, CSFM, and Exhibition Co-chairs Rene Aspiron and Chad Price, CSFM, CFB and their committees have put together for you. STMA exists to provide education, and the STMA conference is the most comprehensive educational program held for sports turf management in the United States. The conference education tracks allow attendees to choose the topics that will benefit them the most. An important component of the educational program is the trade show. On the show floor, you will see the latest technology, meet with suppliers and have the opportunity to compare the benefits of these products and services. You also will not want to miss the Top 10+ Turf Monitoring Tools educational session being presented twice during the trade show.

Throughout the conference you will have the opportunity to participate in another educational activity that is less formal, but of critical importance. It is networking with your peers. Take advantage of the time before and after the formal learning sessions to meet others and find out how they are solving their problems. Their real world strategies complement the classroom presentations and can spark ideas for you to take back and apply at your facility. Each year, STMA has greater attendance from international professionals. Networking with these attendees will bring another excellent perspective to your management practices. As our international membership grows, we will continue to expand our education program to include international speakers and relevant topics. Please help to make our international attendees feel welcome!

STMA is fortunate to have an active and engaged student membership. A majority of these bright, young people compete in our Student Challenge. This is a highly regarded competition, and the two winning teams take home \$4,000 each to create a learning lab at their schools. This year, we have adjusted the student program so that they can be a part of the annual meeting. These are our future leaders, so please introduce yourself, share your advice and be a resource for them.

Coming to your mailbox late this month is the STMA annual election ballot. It will also contain an amendment to the Bylaws that creates a Retired category of membership. Please take the time to cast your vote. You can vote electronically, too. Just be certain that you follow the directions on the ballot.

I wish you and your families a wonderful Thanksgiving together.

A handwritten signature in black ink, appearing to read 'Troy Smith'.



Images courtesy of Destinations Magazine

Opportunities Abound as STMA Heads West!

STMA heads west, to Long Beach, Calif. from Jan. 10-14, 2012 for the 23rd Annual STMA Conference and Exhibition. Settled along five-and-a-half miles of sandy coastline, Long Beach is the quintessential vacation getaway, boasting both the ambience of a sophisticated urban center and the charm of a seaside community. Located just 20 miles south of Los Angeles, California's fifth largest city offers visitors a dynamic range of attractions, shopping, recreational activities, art and culture, restaurants and nightly entertainment that make it an ideal destination for attendees.

As has been the case for several years, STMA has expanded the educational track, with more than 65 education sessions to choose from, organized into nine different educational tracks (you'll learn more about these later in this article). All of this year's sessions were selected with one thing in mind... you and your facility coming away with new opportunities, ready to be capitalized on when you return home.

As usual, there will be ample opportunity to network, visit with STMA commercial members and vendors at the trade show, and take away valuable, actionable lessons from world class educators. Make sure and check out page 21 of this article for What to Do Next, to ensure that you and your crew are able to attend this invaluable investment in you, your staff and your facility.

Conference Highlights

STMA Networking Sessions Wed., Jan. 11, 4:30 - 5:30 p.m.

Members say that networking is one of the top reasons they join STMA. Thus, in addition to all of the networking opportunities throughout the conference, we've created a formalized networking kick-off. Network with professionals from facilities similar to your own! The forum is divided by category into separate sessions for schools K-12 facilities, colleges and universities, facilities used by professional athletes, parks and recreation facilities, academics and students.

Welcome Reception

Sponsored by Toro and Covermaster

Wed., Jan. 11, 7:30 - 10 p.m.

First-Time Attendees Reception – 7 - 7:30 p.m.

A must-attend networking event! Kick off the conference in style with the other influencers who are in Long Beach. Enjoy food and drink courtesy of Welcome Reception sponsors Toro and Covermaster.

SAFE Casino Night at the Welcome Reception

Wed., Jan. 11, 8:30 - 10 p.m.

The SAFE Foundation will be debuting Casino Night at the Welcome Reception at 8:30 p.m. with many games and opportunities to win prizes while supporting STMA's charity.

ESTIMATED INVESTMENT TO ATTEND

Complete Conference Package (Including meals and preconference workshops) – STMA Member – \$375

Ground Transportation – \$50

Misc. meals – \$40

3 nights lodging at STMA official hotel – \$639

Air Transportation – \$340

Total – \$1,444

Remember, that's an investment - not a cost! STMA's previous conferences have delivered a return on investment of 1,375 percent! For a detailed ROI report, go to www.STMA.org and click on the Conference tab, 2011.

*There are ways to reduce your costs significantly. Just splitting the ride to and from the airport and sharing a room with one other person can reduce these costs by more than \$340!



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