

SportsField

MANAGEMENT

Special Edition

The Official Publication of the Sports Turf Managers Association

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STMA Field Renovation Guide

SportsTurf
MANAGERS ASSOCIATION

STMA FIELD RENOVATION GUIDE

Written by Steve Bush, CSFM, Clark Cox, CSFM, Eric Holland, CSFM, Chad Price, CSFM, CFB, and Scott Thompson, CSFM

What is the Problem?

Before considering any field renovation, it is important to understand why the field is underperforming and not meeting expectations. Is the problem a result of improper maintenance practices, poor field construction, old and failing systems within the field, or a combination of the three?

When maintaining natural grass athletic fields, the goal is to provide a safe, consistent and aesthetically pleasing field for the athletes.

This guide is produced to help those with underperforming natural grass athletic fields make decisions related to renovations.



Our Bermudagrass Cultivars Change the Game



Celebration[®] Bermudagrass

Developed in the harsh and dry climate of Australia, Celebration has become a standard bermudagrass across the globe. Used on famous golf courses, stadiums, parks and home lawns, Celebration has a two-decade proven track record of success. Celebration's strengths are highlighted in its exceptional root system and rapid recovery time. Celebration has the best documented shade tolerance for a bermuda variety and features a unique, dark blue-green color.



Latitude 36[®] Bermudagrass

Latitude 36 is one of the highest quality bermudagrasses you will find on the market. Latitude 36 exhibits a fine texture and dense canopy resulting in exceptional ball roll for baseball, soccer and golf. Known for a high tolerance to cold conditions, Latitude 36 stretches the boundaries of the transition zone. Found in stadiums throughout the country and around the world, Latitude 36 is the clear choice for elite playability.



NorthBridge[®] Bermudagrass

For longer seasons of green and a reduced need to oversee, NorthBridge is the choice. Developed by Oklahoma State University, NorthBridge is a tough bermudagrass cultivar known for cold tolerance and early spring green-up. The tensile strength and aggressive rooting of NorthBridge make it a durable choice for sports venues.

Maintenance Practices

Before committing to an expensive renovation project, reevaluate your current field management program. If your sports field is not being maintained regularly, the problem may be solved by adjusting your current maintenance practices. The following is a list of maintenance practices that, if implemented, may improve field performance without renovation:

- **Mowing** – Is the field being mowed on a regular basis at the proper height of cut with a sharp mower? Mowing infrequently or at

the wrong height of cut can lead to weak and thin grass. [Learn more about proper mowing practices.](#)

- **Fertility** – Is the field being fertilized frequently based on soil test data? Athletic fields often require more fertility inputs than other grass areas due to the amount of traffic on them. A fertility program should be based on soil testing recommendations. [Learn more about fertility.](#)

- **Aerification** – Is the field being aerified frequently to reduce soil compaction? Foot traffic from

athletic play can increase soil compaction that can lead to declining grass health. Compacted soils can lead to drainage issues as well. Athletic fields require at least one aerification annually. [Learn more about soil cultivation and topdressing.](#)

- **Water management** – Is the field being maintained at the proper soil moisture level? Having too much or not enough water can greatly reduce the performance of a natural grass field. [Learn more about irrigation best management practices.](#)



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ULTRA DURABLE KENTUCKY BLUEGRASS BLEND

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365ssTM Kentucky bluegrass blend is the most durable sports turf product available. It's fast

germination, aggressive growth

and unrivaled wear tolerance make it an ideal choice for any sports field. It's exceptional turf quality, dark green color and fine leaf texture made it the *only* choice for the Rose Bowl. 365ssTM was developed for the rigors of sports turf use without sacrificing the high turf quality high-end facilities demand.

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- ★ *Dark Green Color*
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When to Consider Renovation

If you have determined that adjusting maintenance practices is not solving problems on your field, it is time to take a closer look to determine the source of the issue. Consider the following:

- If the grass is thinning and discol-

ored in dry soil conditions, irrigation may be needed. Consider the many options for field irrigation or repairing existing systems.

- If the field or areas of the field remain wet for extended periods of time,

creating poor grass quality, drainage or grading adjustments may be needed.

- If skin areas of baseball and softball fields are unsafe, they may need to be renovated.



Irrigation Maintenance and Installation

Water is one of the most essential tools to the success of any sports field management program. Numerous decisions by the field manager contribute to the overall health of the turfgrass and its ability to recover from both environmental conditions and the stress of play. Making the right decisions on the method of application, amount and frequency can be the difference between an average field and a superior playing surface.

- Watering best practices – Effectively managing your water use maximizes turfgrass health and limits its waste. [Follow these tips to better manage sports field irrigation.](#)
- Irrigation audits – Auditing your irrigation system can give you deeper insight to the overall effectiveness of your system. By doing a routine audit you can minimize over watering but also determine

whether your system is operating efficiently. [Learn how to conduct an irrigation audit.](#)

- Irrigation system design – When installing a new irrigation system, it is important to consider many factors, including the overall design, to make sure you are irrigating what is necessary but nothing more. [Learn more about irrigation and water conservation.](#)



Field Drainage and Grading

One of the most common requests for field improvements involves field drainage issues. Many times, the primary problems are an inadequate surface grade or slope to move the excess water off the surface, or a grade impediment or irregularity that prevents the water from escaping through the intended avenue. Field drainage and field grade are so intertwined in the performance of an athletic field that we usually look at them

together in helping evaluate design or renovation needs.

- **Surface drainage** – A critical component to any sports field drainage solution. If installed drainage is not an option for one reason or another, maximizing the effects of proper surface drainage can keep you playing. [Learn more about surface drainage.](#)
- **Laser grading** – Another important aspect to proper sports field

drainage is making sure the surface is properly graded to be able to positively shed water to planned drainage outlets. [Learn more about laser grading.](#)

- **Subsurface drainage** – In the event surface drainage and grading doesn't correct your water-moving issues, subsurface drainage may be required if schedule and budget allow. [Learn more about subsurface, installed drainage systems.](#)



High quality, low input turf varieties.



STANDARD VARIETY

A-LIST APPROVED VARIETY

Use 40% less water without sacrificing turf quality with A-LIST approved varieties.

The A-LIST is an independent, non-profit, industry initiative, fostering development of sustainable turfgrass varieties and related products that perform their function with less maintenance inputs, thus benefiting the environment. A-LIST monitors a voluntary evaluation program including metrics like water conservation, reduced fertility and traffic, heat, and drought stress tolerances, all with no fungicide or insecticide applications.

Products that meet the acceptance criteria can utilize the A-LIST Approved symbol in their marketing and receive the A-LIST Approved tag for use in packaging.

To become an A-LIST Approved Variety, a variety must have demonstrated superior performance in A-LIST trials as defined by:

- The top LSD group for drought tolerance as measured by percent green cover for each of two years in at least two locations.
- Acceptable or better turf quality for each of the two years in at least two locations.
- Have been entered into an NTEP trial for the species. For new cultivars that have met the approval standards for performance in A-LIST trials, final approval will be withheld until the cultivar(s) have been entered into an NTEP trial.

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DECREASED WATER USE



HEAT TOLERANCE



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Members



Infield Skin and Mounds

The only thing on a sports field with equal importance to the turfgrass itself is the infield skin and mounds. The “dirt” is the only other surface that comes into direct contact with players during an event. Making sure you have the right mixes, appropriate amendments and proper maintenance are covered below.

■ **Infield skin safety** – Whether it is turfgrass or infield skinned

areas, safety is always a sports field manager’s top priority. [Use this checklist to ensure baseball and softball field safety.](#)

■ **Infield maintenance practices** – Proper maintenance of your infield skin and mounds can go a long way in mitigating future damage, safety concerns and significant renovations down the road. [Learn more about managing skinned infields.](#)

■ **Mound building** – Mound construction has always been considered an art form, and many sports field managers pore over the smallest details to make sure everything is perfect prior to the first pitch. Watch this 3-part series on how to properly maintain and reconstruct a baseball pitcher’s mound – [Part 1](#); [Part 2](#); [Part 3](#).



TAHOMA 31[®]

B E R M U D A G R A S S

Planning a Renovation?

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Cold Tolerance: Winter Survivability ❄️ Low Water Use ❄️ Exceptional Turf Quality

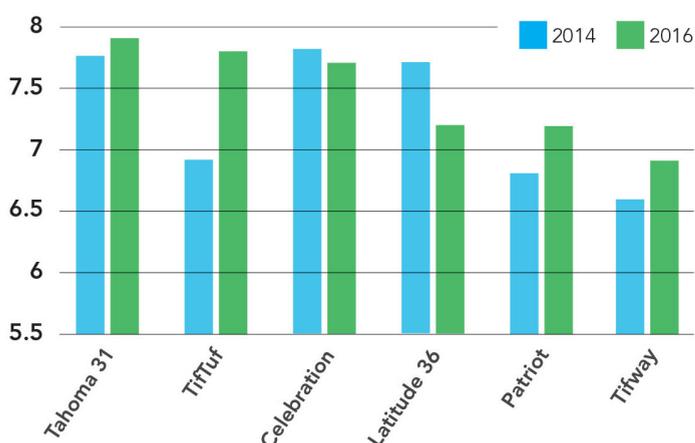
Early Spring Green-Up ❄️ Shade Tolerance ❄️ Traffic Tolerance

Developed by the turfgrass experts at Oklahoma State University

#1 in Turf Quality

Turf quality ratings in NTETP tests at 17 locations over 5 years show Tahoma 31's exceptional turf quality among bermudagrasses, when tested against both vegetative & seeded varieties.

Cultivar	Mean
Tahoma 31	6.8
TifTuf	6.8 (tied)
Latitude 36	6.6
Patriot	6.4
Tifway 419	6.3
Celebration	6.0



#1 in Traffic Tolerance

Turfgrass quality under traffic in NTEP National Bermudagrass Test at Knoxville, TN

Tahoma 31 exhibits excellent traffic tolerance compared to all other bermudagrass cultivars tested.

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Turfgrass Establishment

Once you have undergone renovation, it is paramount to determine the appropriate turfgrass you plan to grow. Below are a few resources to assist in making this extremely important decision.

■ **Turfgrass selection** – One of the most important decisions that any turfgrass manager must make is ensuring you have the right plant for your use and your geographical area. [Learn more about the turfgrasses best suited for athletic fields.](#)

■ **Planting options** – There are so many different options to consider when initiating a replanting of your field. Schedule and timeline will determine a large part of this, but budget will ultimately be the driver in making the final decision. [Learn more about seeding, sprigging, and sodding options.](#)

■ **Soil preparations** – Once a direction has been determined regarding plant type and schedule, the last and very important piece of turfgrass establishment is making sure your soil is prepared

properly to receive the new plants. [Learn more about turfgrass rootzones.](#)

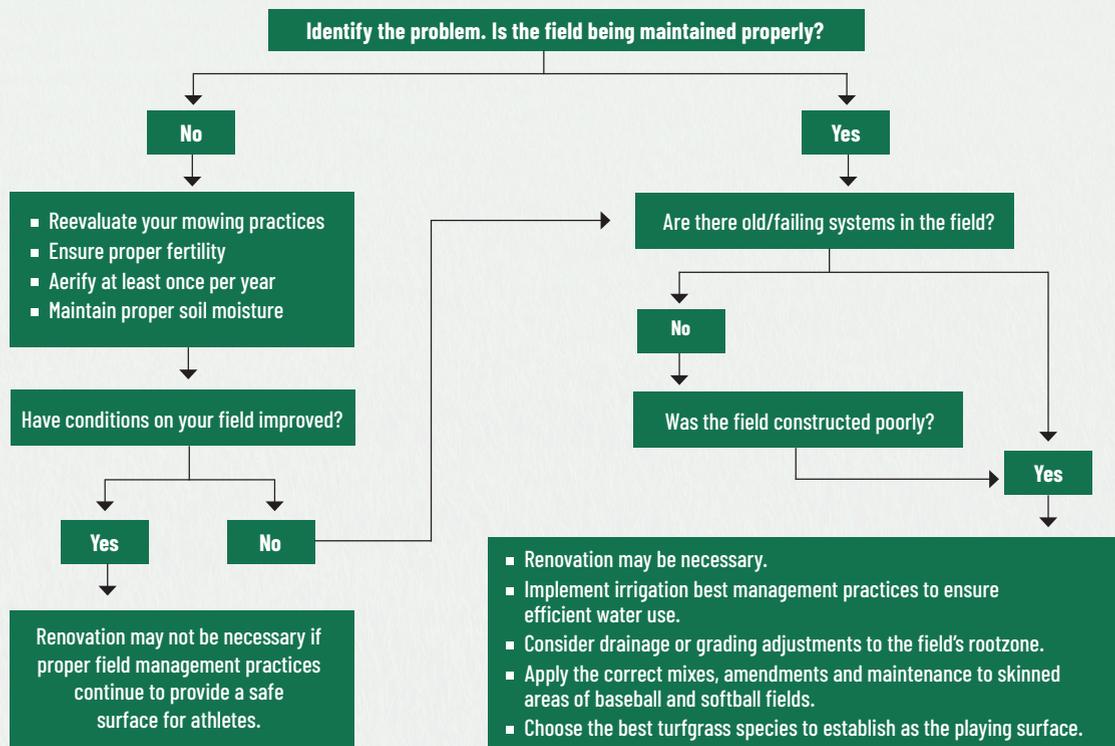
Identifying why your athletic field is underperforming is the first step to making a decision about whether field renovation is needed. By evaluating current maintenance practices, field construction, and any old or failing systems within the field, sports field managers can determine the corrective procedures to put into place to provide a safe, consistent, and aesthetically pleasing field for the athletes. **SFM**

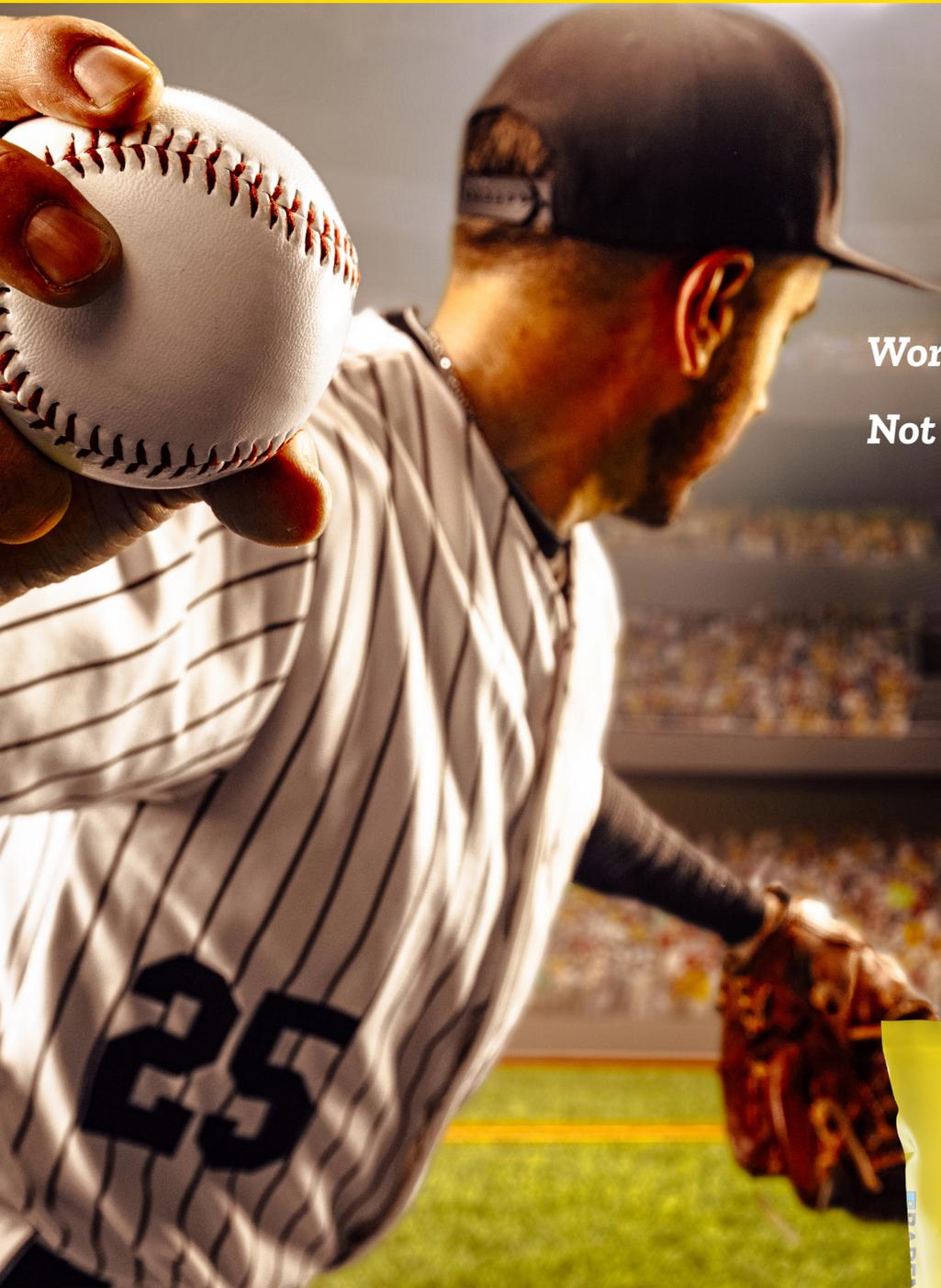




RENOVATION DECISION TREE

Wondering if your sports field needs renovation?
Follow this guide and find out your options.





*Worry about the game.
Not the turf.*



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