

Maintaining Synthetic Turf Sports Fields Into The Future



Scope of Maintenance

- While there are numerous types and uses of synthetic turf, today's focus is on infill synthetic turf systems designed for sports fields.
- **Suggested approach to maintenance**
- **Routine maintenance**
- **Comprehensive maintenance**
- **Field rejuvenation**
- **Special circumstances**
- **Usage considerations**



Maintenance Matters

- *Artificial turf requires less time and money for maintenance and can be used for many more playing hours than natural grass but you cannot just install it and forget it.*
- *Maintenance on a synthetic turf field is different but just as important as natural grass maintenance.*



Maintenance Matters

- *Planned maintenance will maximize the lifetime of the installation and ensure many satisfactory years of use.*
- *Maintaining an artificial turf field is fundamental for the following reasons*
 - **Safety**
 - **Playability**
 - **Life Expectancy**
 - **Value**
 - **Aesthetics**



Field Maintenance Responsibility

Understand who will perform the ongoing maintenance, including repairs and infill replacement, and its cost throughout the useful life of the field.

Maintenance can be performed by the field owner with its own equipment and personnel, or outsourced to either a qualified maintenance firm or the field builder.



Accepting New Turf Field

Training--, the proper use of the synthetic turf maintenance equipment you will be operating, and the steps to ensure that optimal benefits are obtained while satisfying warranty requirements.

Expectation—After a period of several months of initial field use and rainfall, the infill material will settle.

Testing—Conduct any on-site field testing by a recognized third-party to determine if the field meets desired performance



Protecting Field

Establish signage-- and local rules for the use of the field to avoid field contamination and damage.

Encourage coaches--and players to rotate activities to different sections of the field to prevent high wear areas.

Route field access traffic-- in such a way as to minimize the tracking of mud and dirt onto the field.

Damage--Field damage or repairs need to be repaired immediately to avoid escalating problems

Perform maintenance--budget one hour of inspection and maintenance for every 10 hours of playing time.



Routine Maintenance

The basic components of effective, routine maintenance are to:

Conduct inspections and perform minor repairs to avoid playing hazards.

Keep the playing surface clean and free of debris and contaminants.

Check and maintain proper infill levels to provide a consistent surface in high traffic areas such as between the hashes, goal kick areas, lacrosse goal areas.

Brush the surface to preserve appearance, keep grass fibers upright, and maintain even infill levels, making sure to use only approved bristles that will not damage the fibers.

Maintain a maintenance and activity log.



Field Inspections

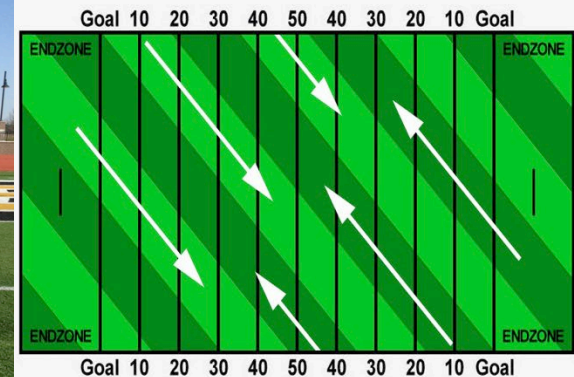
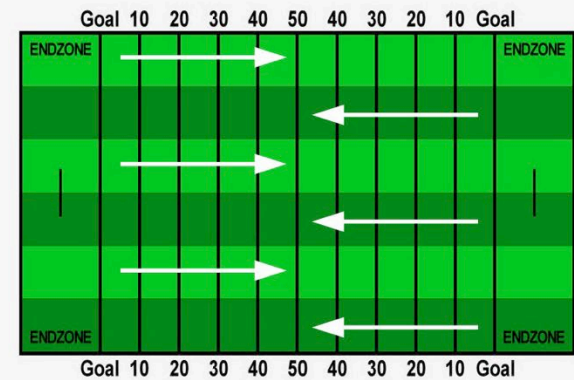
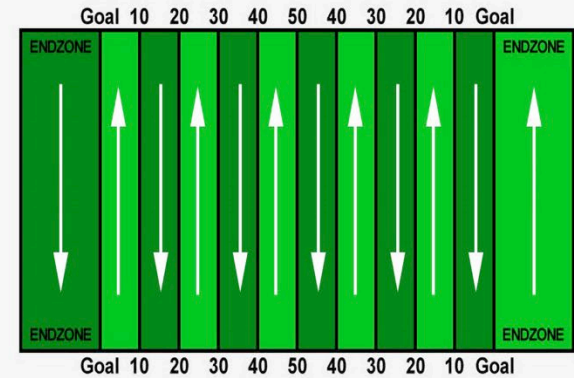
- **Maintenance personal should walk the field daily and report any potential safety hazards items as foreign debris, low infill levels, open seams, etc.**
- **Pay special attention to the most heavily used areas, such as midfield, goal mouths, corner kick areas, etc. Add new infill or redistribute migrated infill, where necessary, to the recommended depth.**
- **Look for foreign debris or contamination.**
- **Check seams and field markings. Open joints can create a tripping hazard and should be immediately repaired**



Grooming

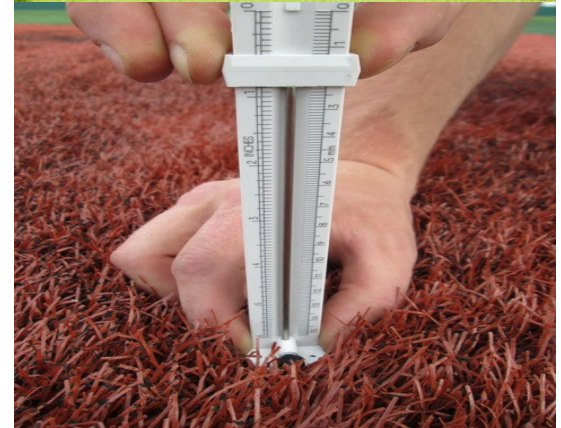
Brushing helps to maintain uniform infill levels, keep the grass fibers upright, remove debris, and improve the field appearance. Conversely, the flattening of grass fibers can create a possible acceleration of wear as well as reduced field performance.

- Equipment
- Method
- Direction
- Brush Height Setting
- Frequencies



Infill Management

- On average, an athlete will carry off field 2-3 pounds of infill materials in a season
- The proper amount of infill is vital to the performance of the field. Infill also protects the fibers from UV damage, and helps keep them upright.
- Brushing, drag mats, and proper rakes can help redistribute infill evenly.
- Decompaction of infill will create a safer playing surface.
- Replacement infill should meet the field builder's specifications.
- Using an infill depth gauge or a nail and tape measure on a grid pattern is the preferred way to measure infill depth and consistency.



Comprehensive Maintenance

Over a period of time, the following situations may arise which will require the need for more comprehensive maintenance:

Grass fibers become significantly bent, creased and flat.

The playing surface becomes hard and compacted.

While common to infill systems, this impacts the players and also can create drainage issues.

Dirt, debris and metal accumulate on or within the system despite routine maintenance.

Seams become loose or panels shift creating a safety hazard.



Maintenance Options

- Professional Field Inspection
- Infill de-compaction
- Infill redistribution
- Deep cleaning
- Metal Removal
- Weed Control



As Needed Maintenance

- Infill Scrape
- Untangling Matted
- Removal of debris
- Disinfectant



Special Circumstances

- **Field Markings**
- **Heavy rains**
- **Snow & Ice**
- **Static electricity**
- **Stain removal/spray paint**

Foreign Objects & Contaminants Removal

- **Chewing gum**
- **Sunflower seeds**
- **Metal objects**
- **Moss & Mold**
- **Weeds**

Turf Usage Considerations

- **High Traffic Areas That Each Sport Creates/Use Patterns**
- **Monitor Field Performance**
- **Vandalism**

- **Certain Activities / Concerts/ Graduation**

- **Sub base**

- **Footwear**
- **Vehicles**