

Getting it right:

# where turf meets track

By Mary Helen Sprecher



Vestavia Hills (AL) High School complex, built by Sports Turf Company, Whitesburg, GA

**O**ne of the biggest challenges facing a sports field maintenance crew is the area where the field meets the edge of the track or where one type of field, grass or synthetic turf, meets the other.

On natural grass fields, problems can be caused by overzealous use of weeders, mowers, or edgers. This equipment can easily damage the track surfacing system. Granular materials that wind up on the track may cause problems, too, when they are ground into the surface, contributing to early wear.

That's not all, say industry members. There are maintenance challenges inherent in synthetic turf fields, too, at the junction of the track and field.

Robert Delmonico of RAD Sports in Andover, MA says that properly addressing this problem for synthetic turf fields starts from the ground up, literally. "When constructing a track surrounding a synthetic turf field, one of the main issues is damage to the turf when the

contractor is paving the track. In some cases, the synthetic turf is already in place before the top course of paving is placed."

This, according to Delmonico, is where the problem starts. "The issue is the confined space between the paving equipment and the edge of the turf. Often, the raker is stepping on the asphalt and can inadvertently step on the turf causing asphalt to end up on the turf, which can either burn or stain it. One way to prevent this damage is to require a person on the paving crew to stand on the turf side of the edge along the inside lane of the track and the field side of the D-areas during the entire paving process. As time-consuming and tedious as that might be, this simple step can prevent turf damage. Such damage is serious; once the turf is burned, it is extremely difficult to repair if it can be repaired at all."

Once the track is in place, says Sam Fisher of Fisher Tracks, Boone, IA it is more likely that the sports field will need maintenance than the track. Planning for field maintenance in the design phase, therefore, is key.



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"One area that I think is overlooked on most installations is an access ramp on and off the edges of the track for infield maintenance work. We've always known that natural grass fields need regular maintenance, but as everyone is now learning, these synthetic turf fields need considerable maintenance as well. They need to be groomed often. These groomers are no different than a decent-sized lawn mower."

Driving, dragging or pushing maintenance equipment over the track, says Fisher, not only can contribute to early wear of the track, it can also cause damage that might not be visible at first.

"At some facilities, the turf continues right up to the edge of the track surface. The constant on and off with a vehicle for grooming tends to compact the rock at that area. That creates a depression at the edge that

becomes so deep the machinery is actually catching on the edge of the track. In addition to the depression, eventually mud can be generated by the traffic and wear. It would be a very small task to install an asphalt ramp on both the inside and the outside for the crossing of maintenance equipment," says Fisher.

Creating a physical barrier between the track and the field, such as a flush curb, is one of the most effective ways of avoiding problems. Ed Norton, RLA, of Holcombe Norton Partners, Birmingham, AL says that the delineation will help keep maintenance equipment and the occasional person who uses it with perhaps more enthusiasm than finesse, from coming into contact with the track.

"In addition to providing the track paver an edge to work to when building the track, it establishes a maintenance line that keeps the

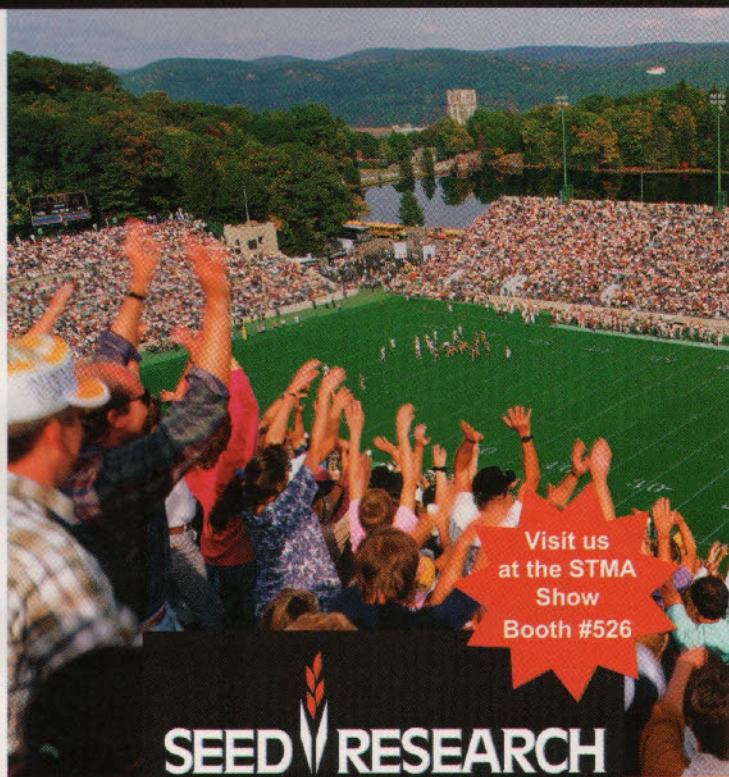
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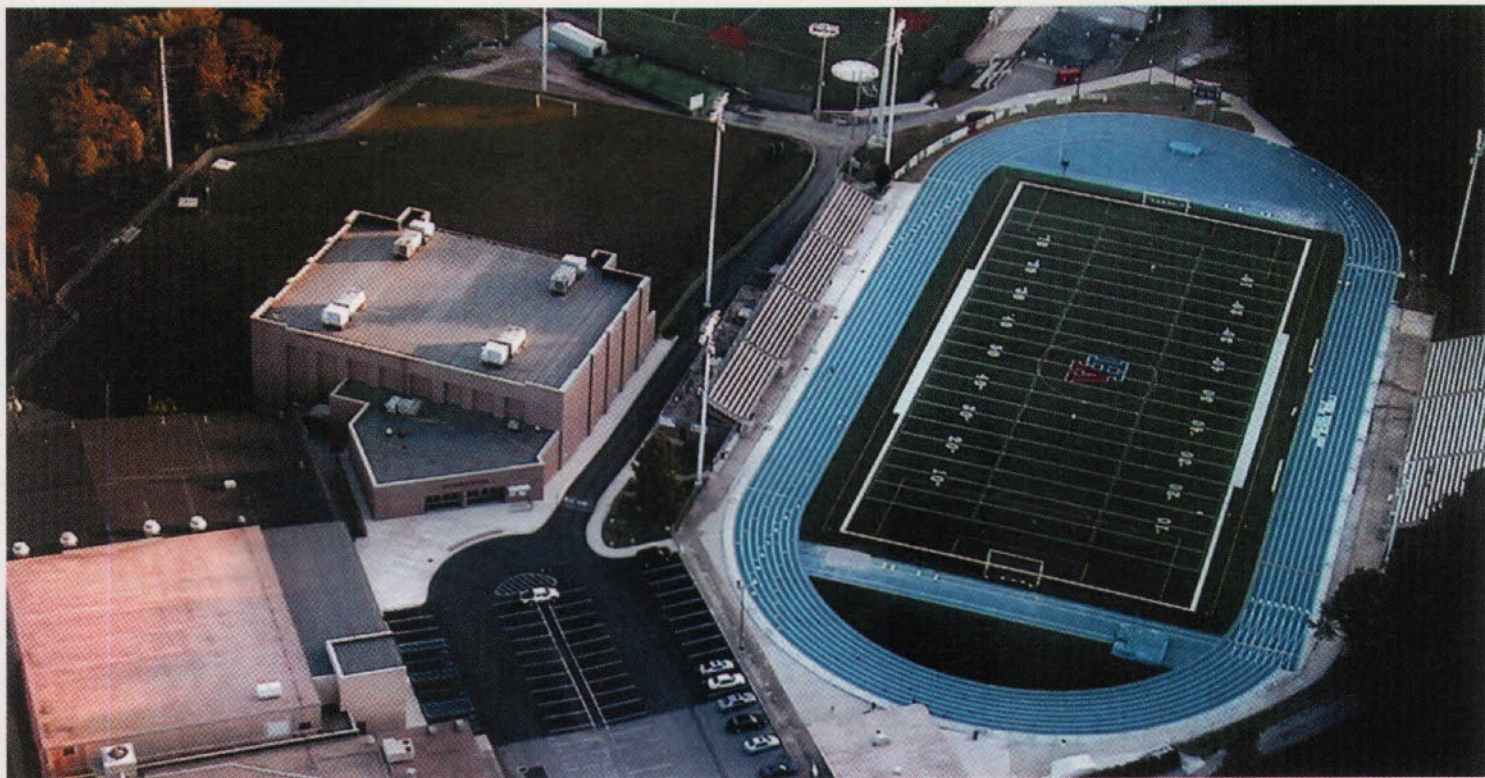


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## IT IS CRUCIAL THAT THIS AREA IS CLOSELY REVIEWED PRIOR TO GRASSING TO INSURE THAT POSITIVE DRAINAGE AND A SMOOTH TRANSITION IS MAINTAINED."

mower or string edger from gouging the track surfacing."

John Huard, Jr. of the South Portland, Maine-based Northeast Turf, Hue Inc., advises clients to use a curb in order to divide the track and the synthetic turf or natural grass surface. The materials most often used to create that curbing are recycled plastic timbers, concrete, pressure-treated wood, the so-called 'U' drain, and a 'rope tuck.' Each, Huard points out, has its pros and cons.

"The recycled timbers are fairly easy to install and they do make a nice edge detail. But even installed properly, they tend to move over time and they do not take paint very well. Concrete is nice, but the drawbacks are that the shelf anchor is not consistent (very little to glue to, and the height varies, giving different exposed fiber heights) and there tend to be voids in the shelf. Since the glues that are used to anchor the turf are fairly expensive and become "fillers" for the voids in the concrete, this can get costly. Pressure-treated wood is easy to work with, but is on the lighter side for turf anchoring. The pros are in the ease of handling and installing, the cons are it tends to splinter if run over by field maintenance equipment and if unpainted; the faded color can look 'moldy'."

The typical 'U' drain, Huard says, "does a nice job of collecting water run off from the track before going onto the field, although the composites used to make them are fragile during handling and installation. Some people fail to realize or don't correctly calculate the amount of water draining off a track or coming off surrounding grandstands. All that water eventually makes its way to the field; the 'U' drain addresses this by not allowing the water to reach the field. In terms of maintenance, these drains are easy to clean with tops that come off and can be replaced if they break or bend."

The final method mentioned by Huard is the "rope tuck" method of curbing. This, he explains, "gives the flexibility to remove the turf without causing any harm to it, but this

area tends to fill in with debris, trash, leaves, pine needles and so forth. That debris is difficult to remove. We have only done one of these installs but we maintain this field on a regular basis. The edge detail takes the most time to clean because of the rope tuck."

It is important to think through the drainage issues of the field before choosing a curb type. Norton believes that thoughtful consideration of drainage issues can spare the maintenance crew and the facility users a lot of grief down the line.

"A channel or trench drain around the inside perimeter of the track solves a lot of problems. This allows the builder to utilize

laser technology right up to the drain when finish grading the field. The drain also provides a field maintenance edge away from the synthetic surfacing of the track," Norton says.

Of course, Norton says, the ever-important bottom line has to be taken into consideration, since a channel drain system is one of the more costly installations. "The alternative to a channel drain," Norton says, "is a series of drain inlets around the outside of the field. The builder can laser-grade the field itself, but will have to hand work around the inlets and up to the edge of the track. It is crucial that this area is closely reviewed prior to

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# FACILITY & OPERATIONS

## IMPROBABLE THOUGH IT MAY SOUND, THE SEED OFTEN TAKES ROOT IN THE INFILL OF THE FIELD, CREATING AN ADDITIONAL CHALLENGE TO THE MAINTENANCE STAFF.

grassing to insure that positive drainage and a smooth transition is maintained."

How the surrounding surfaces are maintained, says Huard, and what effect maintenance has on the turf has to be considered closely. "The number one maintenance issue I see from in connection with synthetic turf fields surrounded by natural grass areas is the direction of the mower discharge. If the synthetic field is separated from a natural grass area by only the curbing, the maintenance staff mowing the lawns tends to blow the discharge onto the turf, introducing unnecessary foreign debris that needs to be removed. By simply discharging the mower away from the synthetic field, the maintenance staff can reduce the amount of debris they need to remove from the playing surface."

Huard also sees problems in cases where freshly spread grass seed finds its way into the edges of a synthetic field. Improbable though it may sound, the seed often takes root in the infill of the field, creating an additional challenge to the maintenance staff.

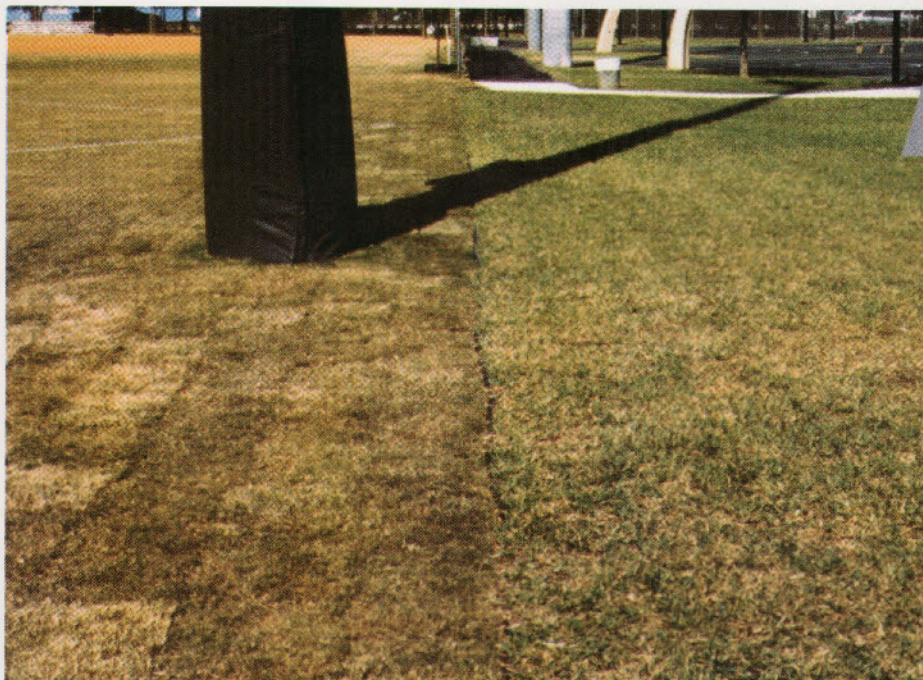
Water, either from irrigation systems or from rain, can carry seed and other contaminants onto a synthetic turf field or onto a track, according to Sam Fisher. It happens naturally, but there is no reason to tempt fate by carrying watering to extremes.

"One of the biggest problems we see across the country with the natural grass fields is the desire to water (and in some cases almost flood) the grass to the very edge of the track. The drainage is not adequate to handle all of this water and asphalt stripping begins to take place. It is nearly impossible to design a sprinkler head that is going to hold a perfect edge when spraying water and, of course, wind will move that water such that the track is inundated on a consistent basis."

With proper placement of irrigation equipment, says Ed Norton, the potential for problems can be minimized.

*Mary Helen Sprecher wrote this article on behalf of the American Sports Builders Association. See [www.sportsbuilders.org](http://www.sportsbuilders.org). ■*

## John Mascaro's Photo Quiz



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## Answer: from page 28

The black line between field and common area of this newly sodded sports complex was actually plastic landscape edging. This edging was inserted between the bermudagrass athletic field and the St. Augustine grass common area as a barrier to keep the bermudagrass from invading the St. Augustine grass. The original plan for this area was to have the sidewalk intersect these two areas creating a walking path and also a barrier for the different varieties of grass. In an attempt to save money, the city decided to eliminate the sidewalk. In its place, a contractor inserted the plastic landscape edging to keep the different grass varieties separate. This is a good example of how changing one small detail on paper does not necessarily translate well on turf. Interestingly enough, the city eventually ended up installing the sidewalk that was in the original plans, which solved the problem of keeping the two varieties of grass from encroaching and continued the walking path around the ball fields.

Thank you to Loren Matthews, Director Parks and Recreation Department at the Village of Pinecrest, for allowing me to take this photograph. ■