“Using sheep shears to accurately put in field markings is like using a chainsaw to accurately cut crown molding.”

**SportsTurf:** How long have you been installing synthetic surfaces?

**Fowler:** Nine years.

**ST:** How many have you done?

**Fowler:** More than 160, as well as being a part of just as many. I have trained many crews on various aspects of installation and also assisted crews with installations that were running behind so I don’t have an exact figure on how many [but] it’s a lot.

**ST:** How did you get started?

**Fowler:** I worked for a major airline as a maintenance engineer until shortly after 9/11 when I was laid off. I knew various people that were just starting to install new age synthetic turf fields. Two things I really enjoy are sports and aviation. Since aviation jobs were nowhere to be found, I decided I wanted to be a part of this new sports field technology.

**ST:** What is the most important part of the installation process in your opinion?

**Fowler:** There are so many. Assuming the base is hard and draining properly and assuming a good quality turf is being used there are three main parts to a typical field installation:

1. Accurately measuring and laying out the field with an understanding of the rules of the game and what each line represents.
2. Applying the proper amount of infill evenly across the playing surface. Many companies have cut back on the amount of infill to lower costs. This reduced infill level causes more wear to the fibers making for a much shorter life span.
3. The most important step—SEAMING. Seams are the biggest problem on turf fields nationwide. Many companies will sell the idea that sewing is stronger than gluing. Unfortunately this is simply not correct. The material being sewn is actually the carpet salvage. Salvage is the outside scrim of the carpet. Salvage is the weakest part of the carpet. It should be cut off and thrown in the trash. Turf companies call it a “sewing flap” and use this excess garbage to hold everything together. In reality they sew because thread costs much less than adhesive.

A properly glued field will outperform a sewn field every time. If sewing was stronger than gluing NASA would sew the space shuttle together. Instead they use multi-part adhesives that are designed for specific products. Synthetic turf should be installed with an adhesive designed specifically for synthetic turf. Carpets are designed to be cut and glued in place. Synthetic turf is no different and using the proper adhesive is a must. Some companies will try and sell the customer on the concept of shearing and hot melting to “avoid” seams and cuts in the carpet. This process is used because the hot melt or tar is cheaper not...
because it is better. It would be hard to sell a field if a company said the reason they sew and hot melt is because it is cheap, the lines will be crooked, your in-lays/seams will be elevated, and it will all be held together with roofing tar.

Telling the customer that sewing and hot melting is stronger has a better ring to it. Using sheep shears to accurately put in field markings is like using a chainsaw to accurately cut crown molding. Sheep shears should be used on sheep, carpet knives should be used on carpet. Roofing tar should be used on roofs; synthetic turf adhesive should be used on synthetic turf.

ST: What do you think installers do incorrectly most often?
Fowler: Measure incorrectly and use installation processes which adversely affect field symmetry.

ST: What aspect gives you the most trouble as installer?
Fowler: Without a doubt dealing with engineers. It seems like every project we go to there is always a new engineer on site who has done a couple of fields but somehow has all the answers. Schools have much better luck when they do design build projects. It saves money and leaves the fields in the hands of the people who build them everyday.

ST: How important is the adhesive choice and installation? I’ve heard that’s a typical problem.
Fowler: This is very important. Two-component adhesives are recommended for strength and durability. In the early days turf companies would use whatever inexpensive glue they could get their hands on to install their fields. This caused seam failures and gave gluing a bad reputation. The gluing procedure was not the problem. The improper adhesive products were the problem.

ST: Have you used anything but crumb rubber as infill?
Fowler: We have installed fields with recycled rubber, EPDM rubber, sand, coated sand, and various organic infills.

ST: What about the new organic infill? What do you think is the best infill material or is that not a concern of installer?
Fowler: Rubber is the best infill. When these fields first started everyone said how great they were for the environment by recycling tires and building new sports facilities. Ten years later everyone is concerned that their kids are playing on old ground up tires and the effects from the dust particles. There are more airborne rubber dust particles on every road in America than there are on any synthetic turf athletic field. EPDM rubber is considered cleaner and safer but it comes at a much higher price.

Justin Fowler is president of Sports Turf Direct, which supplies seaming materials (including STA-1000) and installs athletic fields for most major turf companies as well as lower cost private field projects.