Despite the controversy over the architecture of the new Soldier Field, Chicago Bears players are only concerned with one thing—the turf.

When 79-year-old Soldier Field reopened September 29 with a Black & Blue Division showdown on Monday Night Football, spectators found improved views of the field, larger concourses and up-graded concessions. The players, meanwhile, have been treated to a new playing surface. The field’s immaculate condition on opening night drew rave reviews on television from Bears legend Dick Butkus and commentator John Madden.

Bears head groundskeeper Ken Mrock wanted a field constructed that would provide a healthy, safe-playing surface for the Bears, their opponents and any other athletic teams that were to play on it. “Players today are bigger, faster and stronger, so it’s that much more important to provide them with as healthy and safe a turf as possible,” Mrock said.

Mrock didn’t have to look far to find a model for which to build Soldier Field after. Halas Hall, the Bears practice facility in Lake Forest, IL, thrives year in and year out throughout the season. The field’s construction enables it to remain healthy and withstand the frigid Chicago climate and daily traffic of 300-plus pound football players, Mrock said.

“We’ve had great success over the years with our practice field at Halas Hall,” he said. “Therefore, we mirrored everything at Soldier Field after that.”

Among the similarities between the two fields are two key features: a sand-based root zone mix and a heating system.

Root Zone Mix
Drainage and oxygen and nutrient retention are two of the most important aspects to maintaining a healthy sports turf field. A field’s root zone make-up determines how efficient drainage and oxygen and nutrient retention are.

At Soldier Field, the custom designed root zone mix is made up of 85% USGA sand, 5% sphagnum peat moss and 10% Profile Porous Ceramic. The root zone depth is 8 inches over a 4-inch gravel blanket. The addition of Profile is meant to help enhance root growth, prevent compaction, provide permanent air porosity and improve drainage.

“Incorporating Profile into our root zone mix has shown me the benefits over and over,” Mrock said. “This same root zone mix has produced a dense, deep root mass, ideal drainage and...
overall turf hardiness. It has helped prevent unstable playing conditions, wear spots and divoting."

Soldier Field groundskeeper John Nolan will topdress the field as needed throughout the year with an 85% sand and 15% Profile mix. With the sod installed in June 2003, John and his staff were able to thoroughly prepare the field before the Monday Night Football season-opener by topdressing, aerifying and fertilizing it several times.

Heating System

Plants depend on sun and heat for survival. Unfortunately, Soldier Field doesn't receive much exposure from the sun once the NFL season rolls along into December and January.

To counter Chicago’s cold temperatures, a heating system was installed underneath the field to provide a warm environment for the soil and turf.

"A heating system is going to help us out a lot," Mrock said. "It will help us keep a healthy turf longer. We'll see growth of grass into the winter months because the system will keep the soil at optimum growing temperatures."

By adding the heating system, Soldier Field is taking after several other NFL stadiums in cold-weather climates, including Lambeau Field in Green Bay.

The heating system was installed 9 inches deep underneath the root zone using more than 40 miles of 3/4-inch tubing. Radiant heat will warm a combination of water and glycol as it is pumped through the tubing.

"It does its job," Mrock said. "It melts some snow and keeps the field from freezing. As a result, it will make it softer and more forgiving for players, and will extend our growing season."

Soldier Field’s sod was custom grown. Mrock chose a Kentucky Bluegrass blend of turf that closely resembles the sod at Halas Hall.

The heating system was installed 9" deep under the root zone using more than 40 miles of 3/4" tubing.

Soldier Field will serve as a multi-use facility. It will be the new home of the Chicago Fire of Major League Soccer and will be a venue for concerts and high school and youth league events.

Nathan Odgaard is a writer with Swanson Russell Associates, Lincoln, NE. He can be reached at nathano@srmarketing.com. Article reprinted with permission from SPORTSTURF magazine, November, 2003.

KEN MROCK: STMA’S GROUNDSKEEPER OF THE YEAR

After speaking at the Ontario Turfgrass Symposium, Ken jetted off to the 15th Annual Conference & Exhibition of the Sports Turf Managers Association in San Diego, California where he was presented with the prestigious Harry C. Gill Memorial Award.

The Harry C. Gill Memorial Award is named for the STMA's second president who served in that capacity from 1982-1983. His commitment to the sports turf industry and his support of the goals and standards on which the STMA is based are legendary. The Gill Award denotes an individual’s long-time service and commitment to STMA and those same goals and standards. Congratulations Ken from the Sports Turf Association!

Photo: STA Director Jane Arnett-Rivers with Ken Mrock at the 2004 Ontario Turfgrass Symposium in Niagara Falls.