



Photo by Wayne Kryduba, Minnesota Twins

Target Field opens in Minneapolis

ON APRIL 10, 2010 what started as a dream years ago for the Minnesota Twins will become reality. Target Field in downtown Minneapolis opened its gates for its first-ever Opening Day. There has been a lot of excitement throughout the Twins community as well as in Major League Baseball. No more indoor baseball after 30 years. It is exciting for Twins, as well as the players, fans, and everyone who likes the great outdoors of the National Pastime.

The process was all but dead before it finally began. There was discussion of

selling the team and relocating. There was even the rumored possibility of league contraction with the Twins. Finally, after the negative alternatives were dismissed, a positive outcome of a new open air stadium venue was decided upon and plans began for the yet-to-be-named Target Field.

Initial groundbreaking began more than 3 years ago in an old parking lot at the edge of downtown Minneapolis. In fact, one section of the parking lot remained within the ballpark internal playing field until it was excavated in June of 2009. It was to be used as a surface for off loading of the large precast concrete forms to construct the

seating bowl of the ballpark.

Sports Fields, Inc. of Canton, GA was selected by Mortenson Construction and the Twins to tackle the huge, time-constrained undertaking for building the playing field for the Twins. In normal circumstances, the entire area of the playing field subgrade is cleared and ready for construction process to begin. However, Target Field was no ordinary circumstance. Large cranes would occupy the playing field area. Only center field and right field would be available at the beginning of the playing field construction. Space was extremely limited outside the ballpark due to the dense development of the urban city that had existed for years prior.

Due to these conditions, the performance of all major construction activities such as seating, lighting, and concessions had to be performed from the future playing field surface.

In close coordination with Mortenson, the Twins Head Groundskeeper, Larry DiVito, and several other subcontractors, we were able to alter the field construction activities to accommodate the conflicting conditions without compromising the extremely demanding schedule. The constant need for perfection that coincides with professional sports continued to be a challenging obstacle to fulfill with consideration to the aggressive duration of the field installation.

Without hesitation, the process of establishing the subgrade began. It was discovered through the geotechnical reports that existing soil present on the site was not suitable for subgrade fill, and therefore would



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have to removed and disposed off site. Next, 18 inches of select fill was to be installed, compacted, and laser graded. Additionally, it was also tested and approved to meet the stringent specifications of the field design.

Following the select fill, installation of subsurface drainage began. Cranes still occupied the infield and left field sections, therefore the centerfield and right field sections were completed first. Drainage laterals were installed using 6-inch perforated HDPE pipe connected to an 18-inch solid HDPE collector from the field access gate in left field to first base.

In addition, a looped 18-inch collector line would encircle the entire playing field and connect to a concrete drainage detention vault just in front of the bullpens in left center field. Once the drainage installation was completed then it was time for irrigation installation in the NE and SE sections. After installation of a geotextile fabric over the subgrade, a 4-inch depth gravel blanket was installed above the select fill, drainage, and irrigation piping.

As the erection of the precast continued in a clockwise direction throughout the bowl, the use of cranes would decrease as the final sections of left field were completed.

According to original schedule, the last crane was to be disassembled and transported off the field on August 20, 2009. Realizing that this date would not allow adequate sod establishment before winter, Mortenson achieved an actual date of July 30, which allowed the field construction to begin before the original scheduled date. Good weather, diligent execution by experienced contractors, and a lot of hard work allowed an early finish for this section of the playing field.

Target Field would then become one of the only MLB stadiums to have a state of the art hydronic heating system which was designed to accommodate the seasonal shading of the field. We and our team designed and installed approximately 38 miles of Pex tubing, control valves, and header pipe above the pea gravel layer. The tubing would be filled with around 8,000 gallons of a 40% glycol solution to prevent freezing during Minnesota winters and carry heat to the rootzone for optimum growing temperatures during the fall and early spring. The process will also keep the ground from freezing solid during the harsh Northern winters.

The rootzone mix profile is 10 inches in depth composed of a specially blended mix that is 97% athletic sand and 3% peat. The

selected sand was different from the typical USGA specification that normally is the industry standard and the change was made at the direction of the architect, Populous, and the Twins in order to more closely replicate the characteristics of the rootzone on the custom grown bluegrass sod.

According to the project specifications, the sod installation was to be completed within 24 hours of harvest. This duration included an 830-mile refrigerated truck journey originating in Colorado. Additionally, the Twins requested the sod installation not to occur to the peak daytime temperatures. The sod deliveries were received late in the afternoon with installation occurring throughout the night.

After sodding was complete in late August all that remained were the finishing touches on the infield skin, warning track, and mound. Each layer was laser graded, compacted and surveyed for a total of five times through all the lifts to meet the exacting tolerances. ■

Steve Peeler is the Director of Sports Field Project Management, Sports Fields Inc., Canton, GA.

NTEP requests your participation and comments

THE NATIONAL TURFGRASS EVALUATION PROGRAM (NTEP) wants to hear from its




customers. An eight question survey is now posted on the NTEP web site at www.ntep.org/contents2.shtml. NTEP wants to know where you are from, what cultivar information is important to you, why you visit the NTEP site, and how NTEP may improve its data presentation. There are also several opportunities to provide comments on NTEP's programs and services.

The survey is a new vehicle in NTEP's efforts to better connect with its customers, step one being finding out more information about who visits the NTEP web

site and why. This survey will help NTEP redefine its programs, data collection and presentation methods, to provide the best information for customers and clientele. NTEP will share the results of its survey with anyone that provides contact information when completing the survey.

NTEP, established in 1981, coordinates evaluation trials and publishes objective data on turfgrass performance. For additional information on NTEP or the trials, visit <http://www.ntep.org> or contact Kevin Morris, NTEP Executive Director, at (301) 504-5125.

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