

# Miller Park Bearing Replacement

Milwaukee, Wisconsin

## **Client/Owner**

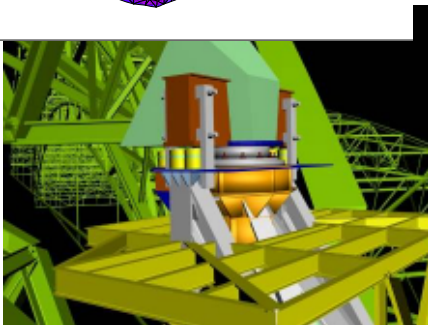
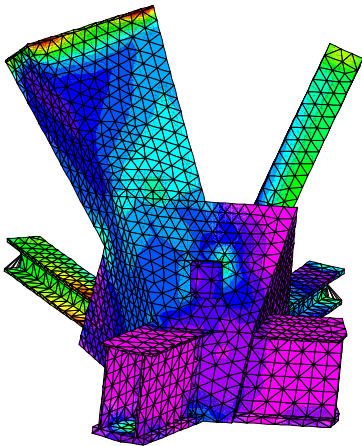
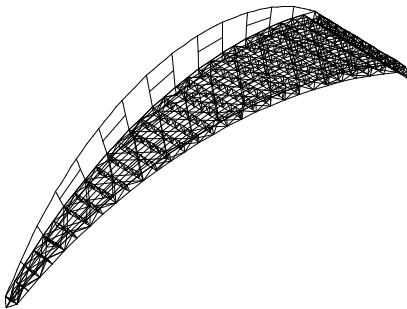
Southeast Wisconsin Professional  
Baseball Park District and  
The Milwaukee Brewers

## **Completion Date**

2003

## **Construction Cost**

\$5 million



As the 2002 season was winding down for the Milwaukee Brewers Professional Baseball Team, the Southeast Wisconsin Professional Baseball District (SEWPBPD) expressed the desire to initiate a major off-season repair. After only two years of service, the pivot bearings of all five of the moveable roof panels of Miller Park Stadium supporting as much as 2,400,000 lbs. of steel and roofing required replacement. Provisions for the bearing replacement were never included in the original stadium design. Tight quarters, severe time constraints and winter weather conditions were among the challenges addressed and resolved by Thornton Tomasetti.

Thornton Tomasetti developed a series of 3-D graphical simulation models and finite element assemblages for planning the replacement program. The finite element analyses included a thorough review of the global behavior of each of the five 600-foot long roof panels under wind and snow loads while on an operational pivot bearing and while jacked up, a review of the roof support structure for the additional jacking loads, and detailed FEM assemblage models of the panel end and support structure in the immediate vicinity of the pivot bearings with the added jacking brackets.

Thornton Tomasetti provided on-site assistance during the entire construction phase, enabling a virtually immediate turnaround for information and shop drawings requested by the contractor. The project was completed on time for the opening of the 2003 baseball season.