

# *Veenker Memorial Golf Course ~ Iowa State University*

## *Renovation /Conversion Project ~ 2008*

### *Bunker Renovation*

*Following flooding during the month of June, all of the bunkers on the lower portion of the golf course were unplayable due to the sand being washed out and a layer of silt and debris being left in the bunkers as the flood waters receded. As all of the bunkers on the course were in need of rebuilding, it was decided that this was the appropriate time to address the renovation of all bunkers. A company by the name of The Cutting Edge out of Eagle Grove Iowa was hired to renovate all of the sand bunkers at Veenker.*

**Process:** Work began June 23<sup>rd</sup> and finished the afternoon of July 3<sup>rd</sup> with 2 rain days. Workers began by digging out all the old material that was left in the bunkers with a mini excavator. A vibratory packer was used to create shaping for the new bunkers. Drainage issues were addressed with horizontal drain boxes. A trench was cut into the low part of each bunker and the drain boxes were seated into this area. Drainage tile was installed from the drainage box to the outer perimeter of each bunker. These tile lines will be extended to existing lines when time permits. The drain boxes are a new technology that has been very successful in bunkers, due to the ease in which they can be located for cleaning and/or replacement of the top screen area when necessary. Following drainage, a fresh edge was cut around the bunkers. Finally, 4 to 6 inches of sand was spread throughout the bunker using a material hauler and fairway top dresser. A probe was used to keep the appropriate sand depth consistent around the bunker. A bunker rake was used to finish the top surface for play.

**Playability:** As of July 3<sup>rd</sup>, all bunkers are back to full playability and standing water within them should not be a problem. The bunkers are currently playing a little “fluffy” as the sand hasn’t had much time to settle. As time goes on, irrigation and rain water will help pack and settle the sand creating easier playing conditions.