

# ***Akron-Canton Airport Runway 5/23 Safety Area Improvements-Instrumentation*** ***Summit/Stark Counties, Ohio***

## ***Project Description***

Pro Geotech, Inc. (PGI) was retained by Baker & Associates (BA) to provide geotechnical instrumentation services for the construction of the approximately 1300 feet extension of Runway 5-23 to the southwest in order to satisfy the Safety Area requirements. This extension required construction of an embankment approximately 1525 feet in length. The height and width of the embankment ranged from approximately 45 feet to 70 feet, and 875 feet to 1000 feet, respectively. The foundation soils that were encountered below the proposed embankment consisted predominantly of non-cohesive soils in most of the boring locations. However, layers of wet and weak cohesive soils were encountered particularly at the wetland area. This wetland area raised some concern due to long term settlement and potential short term slope instability of the proposed embankment during construction. PGI's technicians installed four (4) settlement cells at the top and bottom of cohesive soil layers to monitor the immediate and consolidation settlements and the installation of 15 vibrating wire piezometers in cohesive soils to monitor the excessive pore water pressures. All instruments were installed in accordance with manufacture's instructions and connected to a remote station via buried cables and tubes. Piezometer and settlement readings were taken weekly using a readout box during embankment construction for two years. After the data reduction at the office, settlement and pore water pressure vs. time graphs and embankment elevation vs. time graphs were plotted and analyses with recommendations were provided to client.

### **Client:**

Akron-Canton Airport  
c/o Baker & Associates  
100 Airside Drive  
Moon Township, PA 15107

### **Contact:**

Mr. David Folmar, P.E., PMP  
(412) 269-6300

### **Performance Period:**

June 2007 to March 2009

### **Project Costs:**

\$129,000 (Fee)

### **PGI's Role:**

Geotechnical Instrumentation

