



PROJECT BRIEF

Harvard Allston Science Complex Instrumentation & Monitoring

PROJECT PROFILE

CLIENT:
Harvard University

LOCATION:
Allston, MA

VALUE:

- Monitoring to prevent damage during construction on surrounding structures

SERVICES PROVIDED:

- Automated monitoring of slurry walls during excavation
- Real-time 24/7 automated data monitoring

“Geocomp implemented a mixture of automated and manual monitoring systems. All of the monitoring data from these different systems were collected and reported through *iSiteCentral*®, available to all authorized users.”



GEOTECHNICAL INSTRUMENTATION & MONITORING

Geocomp’s challenge was to oversee the installation, operation and maintenance of a robust and automated system for monitoring the slurry walls during excavation and to detect effects on the surrounding buildings and services. Per project specifications, Geocomp implemented a mixture of automated and manual monitoring systems. All of the monitoring data from these different systems were collected and reported through Geocomp’s *iSiteCentral*® web-based data management and reporting system and were available to all authorized users, including the construction contractors. The system was also capable of issuing emails/alerts if any of the project threshold values were reached or exceeded. During the excavation and tie-back installation, the recorded observations were closely monitored by the geotechnical engineer and project construction team who worked together to evaluate the observed performance of the excavation support, and to manage the excavation/construction activities to minimize the potential effects on adjacent properties.



BACKGROUND

The Harvard Allston Science Complex is a four-building research facility in Allston, Massachusetts, that is the home of a number of Harvard interdisciplinary scientific initiatives. Construction for the complex began in early 2008 with the installation of deep, reinforced slurry walls to provide retaining support for a nearly 6-acre area, 48-ft deep excavation into Boston blue clay. An extensive program of tie-back installation at 4 different depths was performed in concert as the excavation progressed. The bulk of the excavation was completed in January 2009, along with a significant portion of the 5-ft-thick reinforced concrete-base slab.