



PROJECT BRIEF

KIPP Academy Subsurface Investigation

PROJECT PROFILE

CLIENT:

Jacobs Engineering

LOCATION:

Mattapan, MA

VALUE:

- Identified ground improvement as the most economical and efficient method to control differential settlements between the school and gymnasium

SERVICES PROVIDED:

- Performed assessment of foundation reuse for the support of the new building
- Evaluated monitoring data for displacement of existing structures to minimize potential impacts during construction

“The team evaluated potential impacts to adjacent structures and recommendations of geotechnical removal of existing foundations, temporary support of excavation requirements, and associated earthworks and dewatering.”



DESIGN OF EXTENSIVE SUBSURFACE INVESTIGATION

Geocomp was the geotechnical engineer of record for the school construction project. Project work included the design, coordination, and supervision of an extensive subsurface investigation program in addition to geotechnical laboratory testing of collected soil and bedrock samples. An assessment was made on the soils beneath a significant portion of the site area and evaluation of potential differential settlements of the school and gymnasium buildings. The team also evaluated potential impacts to adjacent structures and recommendations of geotechnical removal of existing foundations, temporary support of excavation requirements, and associated earthworks and dewatering.



BACKGROUND

A new 4-story charter school and gymnasium was constructed in Mattapan, MA. The site is located adjacent to an MBTA commuter rail line bridge and careful consideration of potential impacts to the adjacent structures was required to avoid damage to these sensitive structures. The project involved the demolition of several existing structures, excavation and removal of former building foundations, the demolition of existing retaining walls, deep excavations requiring temporary support of excavation systems, and ground improvement of the area of the proposed gymnasium.