

## Beechwood Mansion

Newport, USA

As part of the Beechwood Mansion development, the building shell was to be jacked up. The building, therefore, needed to be monitored for any movement.



### The project

GEO-Instruments were asked to provide real time monitoring throughout the building's interior to ensure that the building and its foundations were stable and safe during these critical works, which involved piling for a new basement.

### The challenge

Installation of all the sensors had to be completed from a MEWP inside the building where works were already being carried out by other contractors. This required a great deal of planning and liaising with the site teams to ensure no works were held up and that they were completed safely.

## The solution

GEO-Instruments installed 40 displacement transducers, 20 strain gauges and 16 tiltmeters to key structural elements to accurately measure the building shell and foundation response during the jacking works, being completed by Hayward Baker. The data from all sensors was displayed on Getec's QuickView website with email trigger alerts. Site activities were also recorded in the Journal feature to allow for effective shift reporting.

## Project facts

### Owner(s)

Confidential

### Keller business unit(s)

GEO-Instruments

### Main contractor(s)

Hayward Baker

### Services

Software/web-based data presentation  
Deformation monitoring

### Markets

Buildings

### Technologies

Tiltmeters  
Geotechnical instrumentation

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