

# Case Study

## Wireless Broadband Solutions for Structural Monitoring

### Wireless Monitoring of New Skyscraper a Tall Order.

Ethernet and Serial Communication for Multiple Instruments Necessary in Construction Monitoring of 2nd Tallest Building in New York.

#### Situation

The Foundry Group was awarded the contract for fabrication and installation of a Core Wall Monitoring System for the new residential tower, 432 Park Avenue in midtown Manhattan, New York. At its completion in 2015, 432 Park Ave will become one of the tallest buildings in the United States, as well as the tallest building in New York City to the roof, surpassing both the new and old World Trade Center buildings, and second tallest in total height behind One World Trade Center.

Using patented technologies by Leica Geosystems, the core wall survey system (CCWS) provides survey control for precise alignment and layout of tall structures.

Cellular communications for the monitoring data were considered but proved unreliable, particularly when the construction height of the building exceeded 60 stories.

#### Communication Solution

Foundry installed Intuicom EB3 Plus and EB6 Plus 900 MHz radios to reliably connect the Total Station

Instruments, GPS receivers, and tiltmeters to a software solution which allowed construction crews to have confidence in their positioning during construction, particularly the vertical. Both Intuicom radios support Ethernet and Serial communications.



*432 Park Avenue will be the tallest residential tower in the western hemisphere.*

#### Results

Foundry Engineering has worked with Intuicom wireless solutions since their inception and have participated in dozens of projects together. The robust, reliable products have proven the best solutions for the rigorous demands of these monitoring and often mission-critical projects.



**Customer:** Foundry Engineering

**Web Site:** [www.foundry-engineering.com](http://www.foundry-engineering.com)

**Country/Region:** New York, NY

**Application:** Structural Monitoring of 432 Park Avenue construction

#### Customer Profile

The Foundry Group offers technologies and solutions for engineering, surveying, instrumentation and risk management as well as on-going monitoring, maintenance, analysis services to the Oil & Gas, Mining, Transportation, and Structural engineering market.

#### Products Utilized in Solution

- Leica-Geosystems Total Stations
- Mixed GPS receivers
- Intuicom EB-3 Plus
- Intuicom EB-6 Plus



[www.intuicom.com](http://www.intuicom.com)