



Reshaping West Manhattan!

Always referred to as ‘The Final Frontier’ in real estate market, Hudson Yards will transform 28 acres of western Manhattan into a dream city. Regarded as the largest private real estate development in the history of the United States, Hudson Yards brings together culture, commerce & cuisine, an engineering marvel that pairs style with sustainability and a convergence of parks and public space. Once complete, the site will include more than 17,000,000 ft² of commercial and residential developments and 14 acres of open park space, as well as a cultural venue, 750-person public school and 200-room luxury hotel.

The Hudson Yards area soil is primarily made up of soft clay and silts at the surface which is underlain by a bedrock of Gneissic Schist. Loadtest assisted East Coast Drilling New York (ECDNY) in completing 6 test caissons, 48 inch in diameter (with 42 inch rock socket) and varying from 66 to 150 feet in length. Loadtest provided an O-cell[®] assembly at the bottom of 3 test caissons to evaluate the compression capacity of each shaft. Lateral load tests were then carried out in the other 3 shafts using the O-cell[®] caissons as reaction. Special bond-breaking casing helped in isolating shear resistance of the upper portion of the rock socket and confine the applied O-cell[®] load to a smaller area.

Loadtest conducted both static and lateral tests one week after concrete placement. The goal of the load test was to provide as much information as possible about the side shear and end bearing values in the rock socket. An average combined side shear and end bearing resistance of 17,600 kips was mobilized during each O-cell[®] test and an average maximum load of 250 kips was achieved during each of the lateral tests. This information was then used by the geotechnical engineer to value engineer their deep foundation design.

Project Info	
Owners:	The Related Companies L.P., Oxford Properties Group Inc.
Architect:	Kohn Pedersen Fox
General Contractors:	Tishman Construction Tutor Perini
Geotechnical Consultants:	Langan Engineering; Mueser Rutledge Consulting Engineers
Drilling Contractor:	ECD NY
Project Cost:	\$1 billion
Completion Date:	December 2022

Services Provided
<ul style="list-style-type: none"> ■ 3 Single Level O-Cell[®] Load Tests. ■ 3 Lateral Load Tests ■ Load Test Program Design ■ SONICALIPER shaft profile



Architectural Rendering

<https://www.6sqft.com/>