



## Millennium on LaSalle



### Deep Foundations – Installing Micropiles

#### PROJECT OVERVIEW

A historic downtown Chicago 13-story office building where movie scenes from the Untouchables and Batman were filmed is receiving a complete conversion and upgrade to high-end apartments that blend contemporary design with the historic elements of the building.

#### REQUIREMENTS AND CHALLENGES

How do you install a deep foundation to support a large-loaded retrofit 14-story elevator structure in an office building that is over a hundred years old in downtown Chicago?

CNC Foundations was contacted about this challenge to design and install a foundation system that would support this retrofit 14-story elevator steel structure.

#### SOLUTION AND RESULTS

The access and logistical challenges became very apparent. A narrow (8' wide) alleyway off of the very busy 29 S LaSalle Street was the only access that could be used to move and locate equipment, supplies, and spoils. In addition, drill rigs and support equipment would need to be moved down into the basement on a material lift with 65" overhead clearance and 60" wide with a load capacity of only 5000lbs. Once in the basement, the overhead clearance for the drilling rig was only 9.5'.

Regulations required a sacrificial test pile to be installed in close proximity to the production piles. Due to limited locations available in the basement to install the test pile and the reaction piles, a specially designed load test was constructed that could be disassembled, moved down into the basement on the material lift and reassembled.

We successfully installed and tested the sacrificial micropile and proceeded to drill and install the production piles completing the project two days ahead of stated schedule.

### Project Details

#### SECTOR

Historic Building

#### LOCATION

Chicago, IL

#### APPLICATION(S)

Micropiles

