

## Case Study

### AUGERCAST PILING

An auger cast pile, often known as a CFA pile, is formed by drilling into the ground with a hollow stemmed continuous flight auger to the required depth or degree of resistance. No casing is required. A high slump concrete grout mix is then pumped down the stem of the auger. While the grout is pumped, the auger is slowly withdrawn, lifting the drilling spoils on the flights. A column of fluid grout is formed to ground level. Reinforcement placed to the designed depth through the fluid grout.

Auger cast piles cause minimal disturbance, and are often used for noise and environmentally sensitive sites. Auger cast piles are not generally suited for use in contaminated soils, due to expensive waste disposal costs. In ground containing obstructions or cobbles and boulders, auger-cast piles are less suitable as damage can occur to the auger



**Less noise** - Auger cast piles are a drilled and pumped pile, not a driven pile. This eliminates the hammer impact noise created by driving piles.

**No vibration** - The elimination of a pile-driving hammer allows the installation of auger cast piles adjacent to existing structures without the danger of settlement or damage to existing footings, walls, other structural components, or nearby equipment.

**No casing** - During the installation of an auger cast pile, the earth filled auger maintains the shape of the pile hole during the drilling phase. The pressures produced by the grout pump during the withdrawal and grouting phase exceed the lateral pressures exerted by the soil, and while the grout is still fluid, the lateral pressures per foot of depth of the grout exceed those pressures per foot of depth of the soil.

**Low Head Room** - Auger sections can be manufactured to accommodate installation of auger cast piles inside existing buildings with a minimum clearance of 7 to 10 feet.

