

## 96th Avenue

Surrey, British Columbia, Canada

Keller provided earth retention for a new building and completed the project in eight weeks with zero lost-time incidents.



### The project

Weststone Developments was constructing a new apartment building with 2 levels of below-grade parking. The soil conditions present were not conducive to traditional shotcrete shoring methods so Keller was called in to design a wall system to suit the job.

## The challenge

The main challenge was installing piles and keeping them vertical, as the pile overlap was a mere 100mm. Keller had already selected Continuous Flight Auger (CFA) as the installation method and had secured the project based on an optimized schedule than traditional cast-in-place pile installation.

## The solution

A scalloped, cast-in-place guide wall was constructed to lock the piles together at the top of the wall. A deviation sensor was installed to measure the pile verticality. If there were any deviations above the specified 1% they were reconstructed to ensure the interlock was guaranteed across the depth of the proposed excavation. The secant pile system was made up of 400 no. piles at 600mm diameter.

## Project facts

### Owner(s)

Weststone

### Keller business unit(s)

Keller

### Main contractor(s)

Vancouver Shotcrete & Shoring Ltd.

### Engineer(s)

GeoPacific

### Solutions

Support of excavation

### Markets

Residential

### Techniques

CFA (auger cast) / ACIP piles

### Email address

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