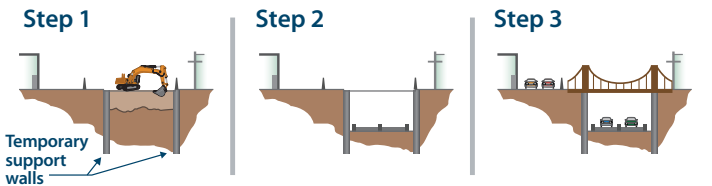




Top-down construction

With top-down construction the trench walls are constructed first, using the intersecting concrete piles which are drilled into the ground (the secant pile method). This provides the strength in retaining the trench walls.

Next, bridges are constructed and connected to the walls to provide support to the excavation walls. The earth below the bridge is then excavated underneath the



functioning bridge. Once excavation to the final level is complete, the floor is constructed and tied into the trench walls. Finishing panels are installed along the trench walls, along with completed road surface.

1
The walls of the trench are constructed using intersecting drilled concrete piles

Secant pile method

2
A bridge abutment is formed above the piles and a bridge deck is constructed

3
The earth is excavated away from the trench side walls to reveal the concrete piles

4
The side walls are finished on the way down

5
The road surface is laid