

FOUNDATION ENGINEERING

The Address Residence Sky View Downtown Dubai

RESIDENTIAL & COMMERCIAL • LUXURY • ICONIC • ROTARY BORED PILES • DIAPHRAGM WALL • SECANT PILED WALL



Client

Emaar Properties PJSC

Consultant

Turner Construction

Architect

Skidmore, Owings & Merrill

Main Contractor

NSCC International

Location

Dubai, UAE

Start Date

July 2013

Completion Date

August 2014

Project Details

This flagship development for Emaar will be an iconic 50-storey hotel, residence and serviced apartment twin-tower complex atop a grand podium, designed by SOM the architects of Burj Khalifa.

Diaphragm Wall

Perimeter	: 601 m
Retained depth	: 14.1 – 15.1 m
D-Wall depth	: 18.5 m
Thickness	: 800 mm & 1000 mm
Top I Beams	: 27 tons
Precast concrete planks	: 1200 m ²

Ground Anchors : 678 nos.

Strutting System : 2 layers of 1500 mm dia. struts along one corner, 140 tons

Main Piles

1000 mm dia. piles	: 67 nos., 31 m deep
1500 mm dia. piles	: 539 nos., 31 m deep

Excavation volume	: 275,700 m ³
Concrete volume	: 47,000 m ³
Reinforcement steel	: 9,300 tons

Special Application

To protect the existing Metro station pedestrian bridge, NSCC had to design tied back secant piles (900 mm dia.) supported by anchors & two layers of struts to limit deflection to a mere 10 mm.