

DIAPHRAGM WALLS

Diaphragm Walls are mechanically excavated deep trenches into which reinforced concrete is placed to form reinforced concrete panels. Excavation is accomplished by using a mechanical or hydraulic clamshell grab and/or the state of the art trench rock cutter that are owned by Avopiling.

Diaphragm walls can be used to provide both permanent and temporary foundations or earth retention systems for a wide range of situations. They are also able to support a structural load when the structure is founded directly onto the diaphragm wall panel.

They are utilised well where movement control is critical and where ground water is present, as diaphragm walls are virtually impervious, they are ideal where it may be difficult to carry out any groundwater lowering.

They are ideally suited for the construction of multi-level basement structures, where a high degree of accuracy is required in verticality and the position of connection systems between the retaining wall and the structure.

Advantages

Ideal for top down construction projects.

Can be installed in virtually all soil conditions including high strength rock.

Reduced noise and vibration compared with other shoring techniques such as sheet piling.

Very accurate method of construction with high tolerance levels.

Removes the requirement for dewatering the site.

Can be used in the immediate vicinity of existing buildings.

Can be designed to carry structural loads thereby reducing the foundation costs.

Specifications

Trench thickness can range from 640mm to 1500mm.

Trench depth can range up to 75m.

Rig weight may range from 150t to 170t.

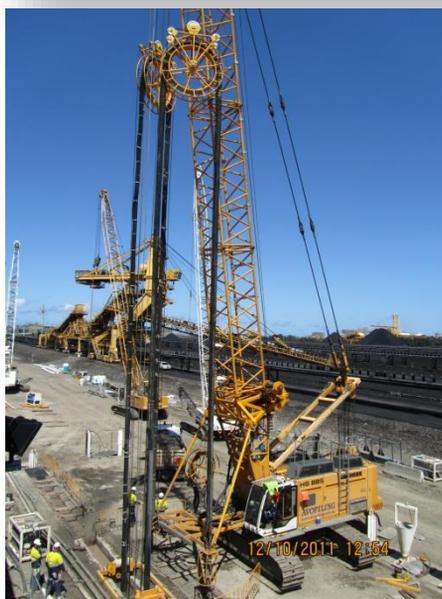


PROJECTS

One One One Eagle Street, Brisbane, QLD

PROJECT OUTLINE: Located at the heart of Brisbane's exclusive riverfront setting and the Central Business District (CBD), this iconic and modern building is centrally located with a wide range of amenities and services, both within the building and close by as well as being on the door step of the well established Riverside Precinct.

AVOPILING SCOPE OF WORKS: Design and construction of Diaphragm wall (83m of guide wall and 1200m³ of diaphragm wall) total number of 27 panels 640mm x 2800mm, the max excavation depth 24m. Up to 10m of rock cutting, in excess of 220Mpa.



Port Waratah Coal Services, Kooragang, NSW

PROJECT OUTLINE: Port Waratah Coal Services Limited ('PWCS'), located in the Port of Newcastle, NSW, Australia, operates one of the world's largest coal handling operations. PWCS operates two coal terminals, Carrington and Kooragang. Carrington Coal Terminal has a ship loading capacity of 25 million tonnes per annum ('Mtpa') and Kooragang Coal Terminal has a ship loading capacity of 108 Mtpa. These terminals receive, assemble and load Hunter Valley coal for export to customers around the world.

AVOPILING SCOPE OF WORKS: Construction of Diaphragm wall (360m of guide wall and 4400m³ of diaphragm wall) total number of 73 panels 640-800mm x 2800-7000mm, the max excavation depth 28m.

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