



Location
Brisbane, Australia

Ludowici Offices

STRUCTURAL / MINING AND RESOURCES

Brisbane, Australia

Mining Industry Supply Specialist Ludowici required structural and civil engineering for a 2 level office facility and large span maintenance and operation facility located on the outskirts of Brisbane in a low lying area of Eagle Farm.

Extremely poor ground conditions, car parking, overland flow issues and storm water retention presented many challenges which were resolved through consultation with local authorities and the client.

The original design involved extensive piling, but with such poor ground conditions, an alternative approach was needed to eliminate the need for piling below the main workshop facility. We provided a competitive and practical solution in the face of deep marine clays.

By using a progressive solution combining post tensioning, ground improvement and logical movement allowances we saved our client nearly \$1 million.

The resulting slab was designed as a 'floating' post-tensioned raft with an articulated perimeter raking slab to aid the connection to the main portal framed building's piled superstructure.

The slab was designed to settle long-term in accordance with detailed geotechnical modeling.

