GREYSTANES EAST INDUSTRIAL PARK

SBMA PERMANENT ANCHORS

Client: Macquarie Goodman

Contractor: John R. Burton Contractors
Specialist Contractor: Menard Bachy Pty Ltd

THE PROJECT

The Greystanes East Industrial Park site is a redeveloped gravel quarry site which is based along the M5 Motorway in Sydney's outer western suburbs. The old quarry site was subdivided into large industrial blocks which were zoned for large industrial warehouses.

The works for this project involved the drilling, assembly, installation, grouting and stressing of 191no SBMA permanent anchors along a retaining wall 160m long and 15m high. The construction of the retaining wall allowed for the excavation into a hill to form a platform for the construction of a 15,000m^2 industrial warehouse. The anchors were installation through the retaining wall in three continuous stages as the excavation was benched downwards.

MENARD BACHY'S ROLE

Menard Bachy was awarded the project in August 2004 as a specialty contractor. Initially the project was put out to tender as a conventional rock anchor design but from the geotechnical information it was established that rock anchor lengths required would exceed 40m in length. Therefore, Menard Bachy adopted the SBMA technology as a more practical and commercially viable solution. The project was awarded due to this design providing the client with major program, commercial and design benefits.

The project was carried out with the design and execution of the following:

· The drilling and installation of 3no trial anchors along the full length of the retaining wall. These anchors were installed and stressed for analysis before work commenced on the remaining works.
· The drilling and installation of SBMA permanent anchors was then completed in three continuous stages as the excavation was benched along the retaining wall.
· The stressing of the SBMA anchors was carried out with the use of specially designed stressing jacks and stools as each anchor unit within the anchor must be stressed by a separate jack simultaneously.

Menard Bachy was chosen for its alternative design by adopting SBMA permanent anchor technology. All stages of the project were carried out ahead of program allowing for continuous works by other contractors on site. The SBMA technology proved to be an extremely successful design alternative to provide the client with a project completed ahead of time and in a cost effective manner.