

GROUND IMPROVEMENT CASE STUDY

MAJOR WAREHOUSE PROJECT MELBOURNE

KEY INFORMATION ON THE PROJECT

GROUND CONDITIONS
LANDFILL / UNCONTROLLED FILL

METHOD
DESIGN & CONSTRUCT

TOTAL SITE AREA
14.3 HA

SECTOR
INDUSTRIAL

TECHNIQUE
CMC

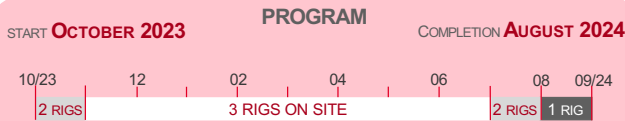
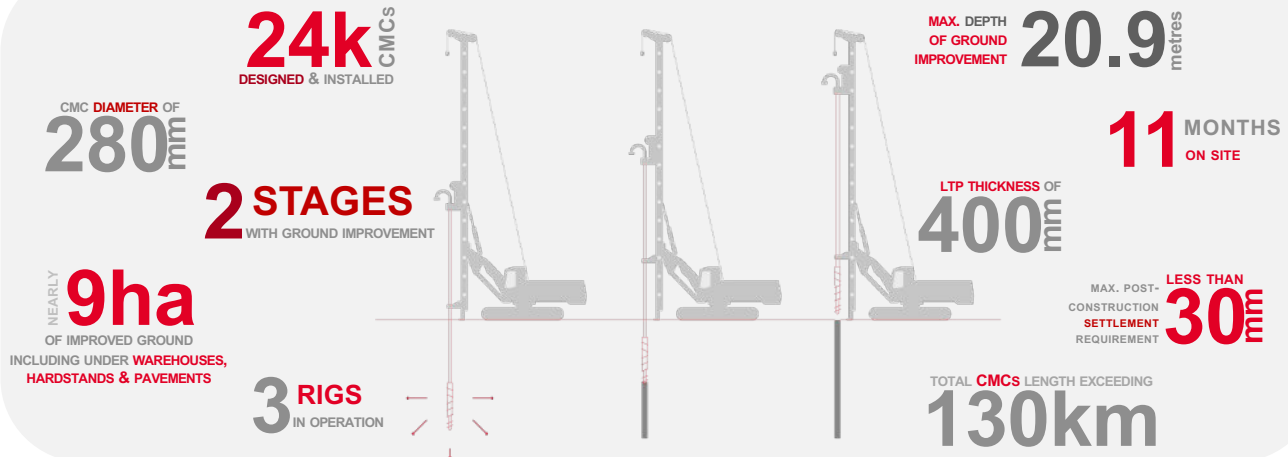
PROJECT OVERVIEW

A PORTION OF THIS SITE WAS PREVIOUSLY USED FOR **QUARRYING** ACTIVITIES AND THEN BACKFILLED. THE COMPREHENSIVE SITE INVESTIGATION REVEALED THAT THE SITE IS COVERED WITH **COMPRESSIBLE SOILS** WHICH ARE EXPECTED TO UNDERGO **SETTLEMENT** UNDER THE INCREASED EFFECTIVE STRESS IMPOSED BY THE PROPOSED STRUCTURES AND THE SITE ELEVATION.

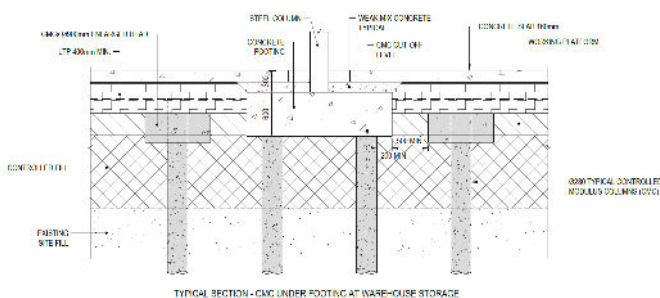
MENARD OCEANIA HAS BEEN ENGAGED BY THE CLIENT AS A SPECIALIST CONTRACTOR TO **DESIGN AND INSTALL GROUND IMPROVEMENT** SCOPE OF WORK. THE FINAL SOLUTION COMPRISES THE CMC COLUMNS WITH EXPANDED HEADS AND LOAD TRANSFER PLATFORM.

THIS UNIQUE APPROACH MEETS THE TECHNICAL SPECIFICATION OF THE PROJECT WHILE ALSO REDUCING THE OVERALL CONSTRUCTION COST AND ACHIEVING THE CLIENT'S STRICT PROGRAM.

IN NUMBERS



TYPICAL SECTION



BENEFITS OF THE CMC TECHNIQUE

- ✓ DENSIFIES THE ADJACENT SOIL MATRIX (SPECIFICALLY IN GRANULAR SOILS) THEREBY IMPROVING THE LOAD SHARING AND DEFORMATION CHARACTERISTICS
- ✓ MINIMUM SPOIL REDUCING THE NEED TO DISPOSE OF CONTAMINATED SOILS, WHICH RESULTS IN CLEANER PROJECT SITES
- ✓ OUR CMCs CAN PROVIDE SIGNIFICANT SAVINGS ON BOTH COST AND TIME OVER MORE TRADITIONAL TECHNIQUES
- ✓ THE TECHNIQUE IS VIBRATION FREE AND CAN BE USED IN THE CLOSE VICINITY OF SENSITIVE STRUCTURES
- ✓ IDEAL FOR LANDFILL SITES DUE TO UNCERTAINTY OF QUARRY FOOTPRINT / ROCK LEVEL AND POTENTIAL UNSUITABLE BACKFILLING MATERIAL
- ✓ UNIFORMLY SUPPORTS SLABS-ON-GRADE AND SHALLOW FOOTINGS
- ✓ VERY HIGH PRODUCTION OUTPUTS

Less is MORE MENARD.