

General Motors / Adam Opel Motor Vehicle Manufacturing and Assembly Plant

Rayong, Thailand, 1996-2000



Client

General Motors / Adam Opel

Designed By

Ove Arup & Partners

Project Managers

Morrison & Knudsen

Constructed By

Christiani & Nielsen (Thai) Pcl.

Technical Description

The Contract was awarded in three phases.

Phase I. Comprised site preparation and earthworks. Overall site of 481,100 m² required 536,977 m³ excavation, cut and fill and with 6,000 lin.mtr. of drainage. Site security and fencing 2,300 lin. mtrs.

Phase II. Comprised all piling and foundation works with 5,057 No. 400 mm square precast piles; 798 No.600 mm dia spun concrete piles; 6,092 m³ R.C. pile caps and ground beams; 7,034 m³ R.C. deep foundation pit structures.

Phase III. Comprised building structures including 15 No. Buildings with GFA 60,000 m²; 146,107 m² roofing & cladding; Site Infrastructure included 76,100 m² concrete roads, 25,500 m² asphalt roads, 8,850 Lin. mtr.concrete storm water drainage ditches, 2,600 lin. mtr.fencing, landscaping, etc

M&E works comprised detail design, installation and commissioning of mechanical site utilities inclusive of 21MW chilled water and 1440Nm³/h @ 3 bar cooling water, 20 MW medium temperature hot water, 370 Nm³/h @ 0.5 bar gas distribution, 18.5 Nm³/h @ 7 bar deionised water, 14.0 Nm³/h @ 7 bar demineralised water, 32.4 Nm³/h @ 7 bar service water, treatment plants, 4170 Nm³/h @ 6 bar compressed air, complete air conditioning to offices, ancillary buildings and high level ventilation systems to production buildings. Works included public health and sanitation, fire protection and sprinklers to NFPA / IRI standards for all buildings with fire ring main system. Electrical works comprise S7 state of the art control systems, XOS building management systems and electrical supplies to all plant and equipment.

Date of Commencement

8th November, 1996

Date of Completion

20th September, 2000.



CHRISTIANI & NIELSEN