



Engineering Design Capability Statement

CPC Project Design engineering services are delivered by engineers and designers experienced in the design of mineral processing plant and associated equipment with capabilities across all project disciplines.

The details of the services associated with the disciplines are:

- Full and complete 3D modelling practice in all disciplines, providing a fully integrated plant layout;
- Earthworks modelling and optimisation utilising Autodesk Civil 3D;
- Concrete and structural design utilising Autodesk Advanced Steel and AutoCAD;
- Mechanical modelling and design utilising Autodesk Advanced Steel and AutoCAD;
- Piping modelling and design which can be integrated with intelligent P&ID`s through Autodesk`s Plant 3D and P&ID software;
- Generation of complete 3D model encompassing the above points using Navisworks. This allows for accurate and efficient collaboration with the client for design reviews and approval;
- Material quantities of concrete, steel and piping extracted from the 3D model. This is achievable due to CPC Project Design performing final engineering design in the model system;
- Material handling and Conveyor systems design utilizing both Helix and in house techniques;
- Bulk material flow analysis including bin/ stockpile storage optimisation and design, this for materials that are free flowing through to cohesive (sticky) materials;
- Civil and Structural design for both static and dynamic structures utilising Space Gass and Strand;
- Dust collection;
- Mechanical equipment specification, selection and detailed design;
- Piping fluid flow design incorporating in house techniques and Fluid Flow for network analysis;
- High and medium voltage power generation and distribution;

- Specification of distributed (plant) control systems (DCS/ PCS) and PLCs;
- Utilising some or all of the above to create overall plant layouts for Prefeasibility Studies, Definitive Studies and Final project. This can extend to incorporating plant infrastructure; and
- Conceptual design through to final design for plant infrastructure, including:
 - Camp layout;
 - RO plants for fresh water;
 - Bore field design and layout;
 - Airport and runway design in consultation with specialist personnel; and
 - Mine services and administration.