

Digital Engineering

DT Infrastructure's proficiency in digital engineering design empowers our clients to leverage the benefits of cutting-edge digital tools such as Building Information Modelling (BIM) and Geographical Information System (GIS). These tools enhance project visualisation, collaboration and efficiency and support successful project outcomes.

DT Infrastructure's Digital Engineering team offers our clients expertise in the design, review and assurance of design and construction elements across a number of industries. Our proven methodology integrates all systems and civil components holistically, helping clients achieve value-for-money throughout project delivery.

Digital engineering

We offer the following digital engineering services:

- BIM
- GIS
- System Information Modelling (SIM)
- 3D design modelling
- 3D construction modelling
- 3D coordination and review
- 4D simulation and activity tracking for site management
- Quantity take-off
- Gamification and signal sighting
- Stakeholder engagement
- Augmented Reality and Virtual Reality (AR & VR)
- Machine control and machine avoidance
- Asset management
- Digital quality records.

Civil component integration

We offer the following civil component integration services:

- Level crossing design and checking
- Combined services route design and checking
- Cable route construction advisory
- Clash review and detection
- Advisory on civil disciplines – overhead wiring, signal gantries, signal mast, foundations, culverts and retaining walls
- Advisory on drainage, design and construction
- Civil correlation from reference design to tender submission to project delivery.



Digitisation of infrastructure creates comprehensive ways to envision design solutions and improve whole-of-life asset performance. Integrating civil engineering, our Rail Systems Engineering capability focuses on rail systems civil components such as combined services routes, level crossing design and verification, culverts and drainages, cable route construction advisory and civil correlation works – from reference design, to tender, through to final handover of assets.

