

Digital design and visual planning services

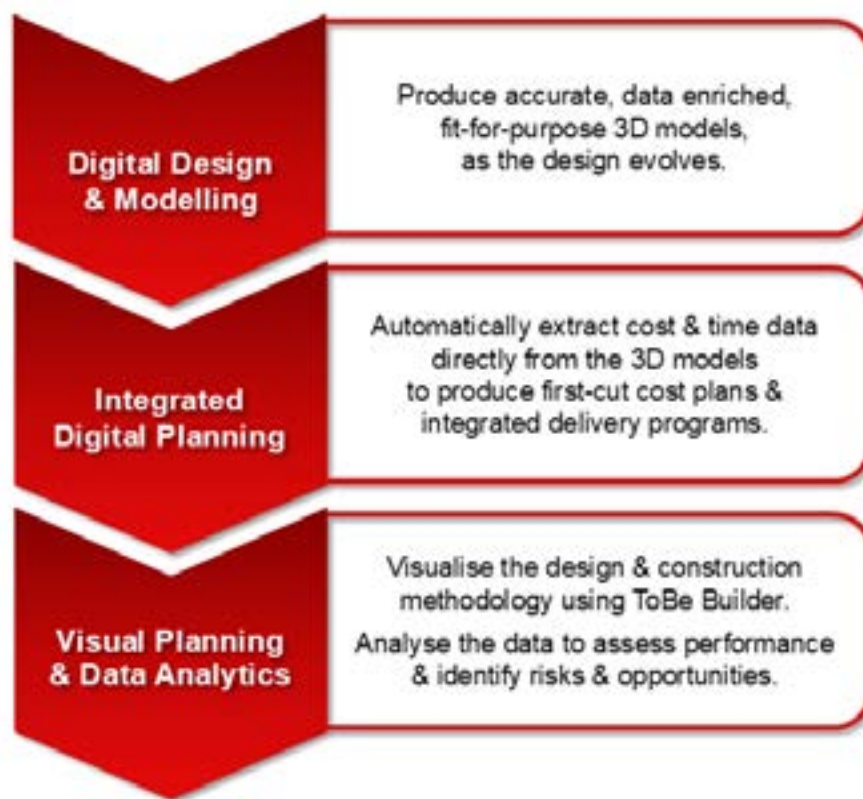


Digital design and visual planning services

EIC Activities provides an integrated digital design and visual planning service that transforms how projects are designed, planned and delivered. We create a digital twin of the complete construction methodology, including permanent and temporary works, enabling stakeholders to visualise and optimise constructability at any stage of design.

Our two-stage approach brings key delivery stakeholders into the design process early, so complex and high-risk solutions can be developed, tested and de-risked on a 'best for project' basis.

The process moves seamlessly from 3D digital design and automation to 4D visual planning and data analytics, powered by our proprietary Integrated Digital Planning (IDP) software and CIMIC's [ToBe Builder](#) platform.



Our capabilities:

- [Stage 1: Digital design and automation](#)
- [Stage 2: Visual planning and data analytics](#)

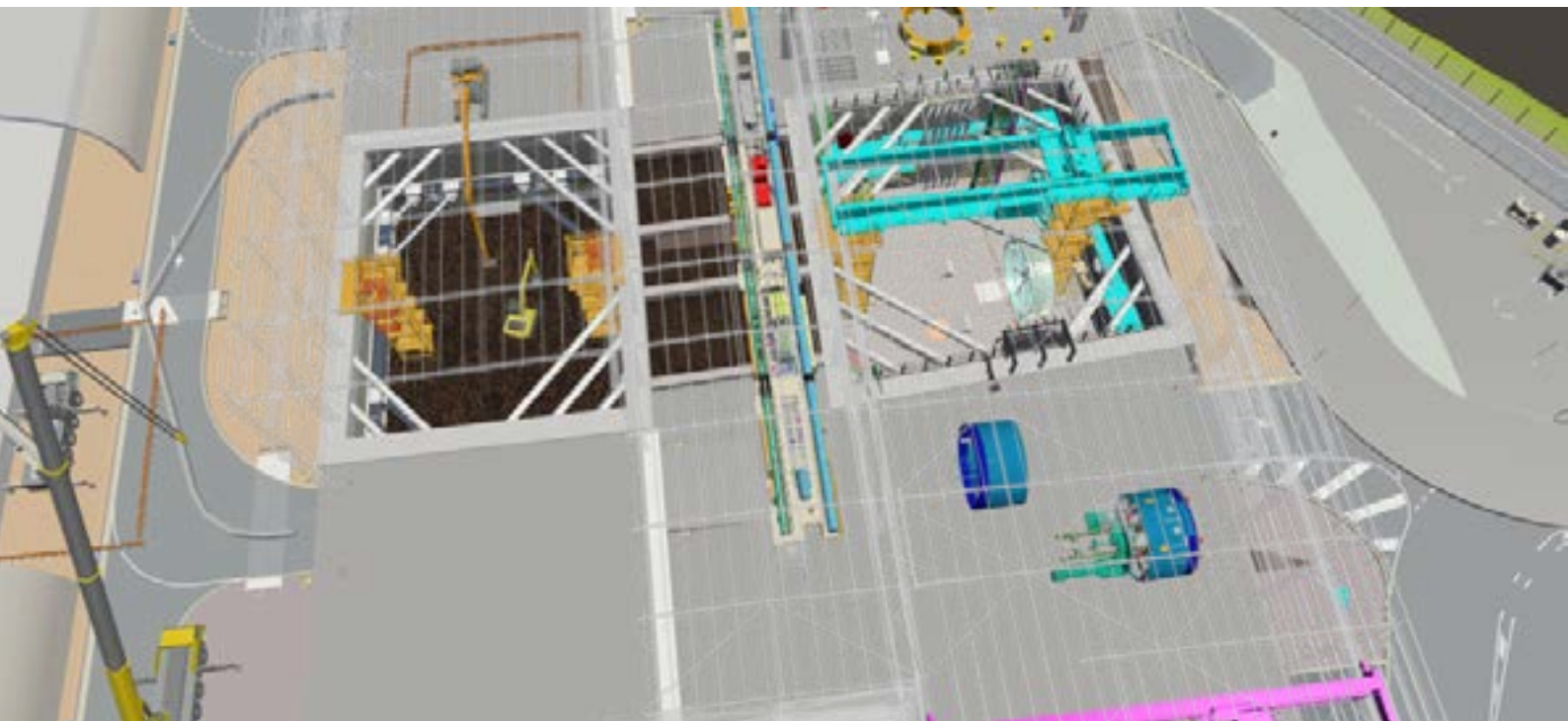
Stage 1: Digital design and automation

Building the digital foundation

Our digital design and automation team produces data-rich, ISO19650-compliant Building Information Models that are structured from the outset to feed directly into our IDP software. Using proprietary in-house workflows, we integrate parametric design, engineering analysis tools and 3D modelling software to develop geometry, data attribution and QA/QC conditioning progressively through each design stage.

Digital design services:

- development of project-specific digital design and modelling workflows, including parametric models, design automations and model conditioning
- creation of digital engineering management plans (DEMPs), ensuring models and metadata are fit for IDP use and compliant with project specifications
- alignment of model execution and implementation with ISO19650 standards
- advice on engineering analysis and 3D design software selection
- training and implementation support
- development of tender-phase 3D models from third-party 2D documentation, enabling full IDP implementation (in collaboration with EIC Activities' Structures and Construction Engineering teams).





Stage 2: Visual planning and data analytics

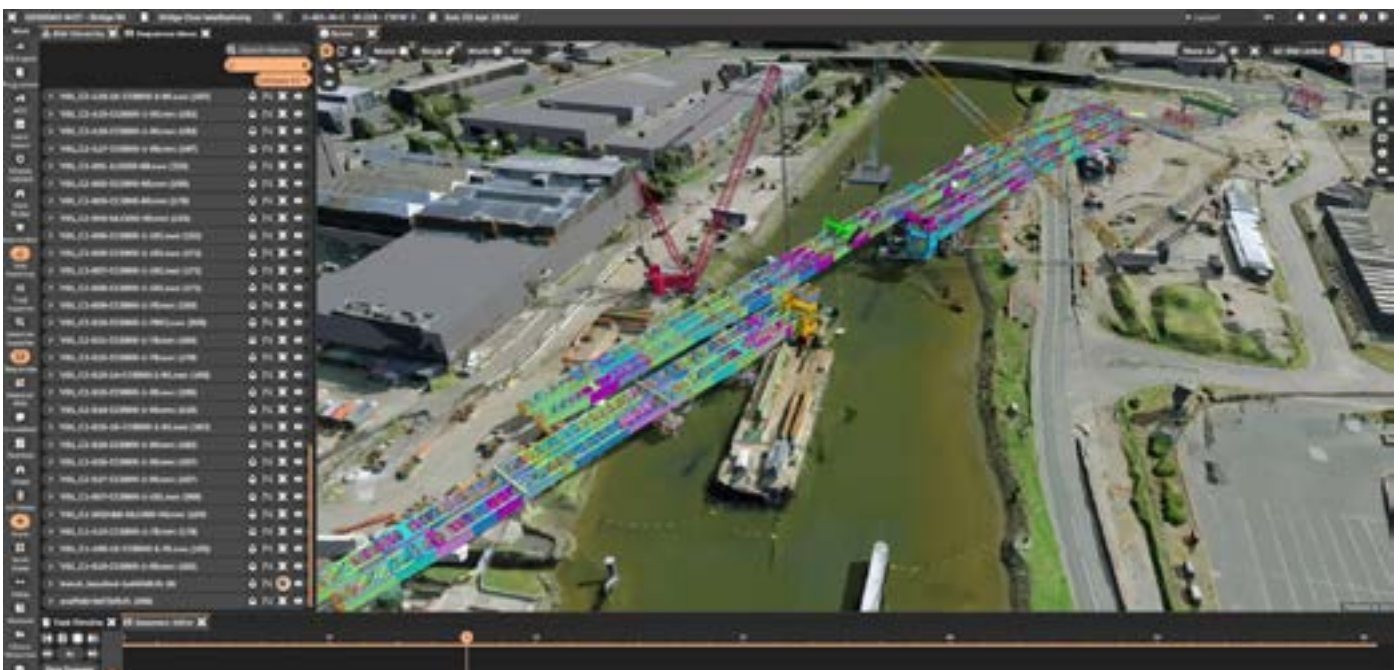
Bringing 3D models to life

Once the digital design foundation is in place, our visual planning and data analytics team uses IDP to extract time and cost data directly from 3D design models, transforming static models into dynamic planning and collaboration tools.

IDP extracts data on materials, quantities, plant and equipment, resources, construction sequences and durations. This data can be analysed in traditional Gantt charts and estimating spreadsheets, or visualised in [ToBe Builder](#)'s interactive 4D virtual construction environment.

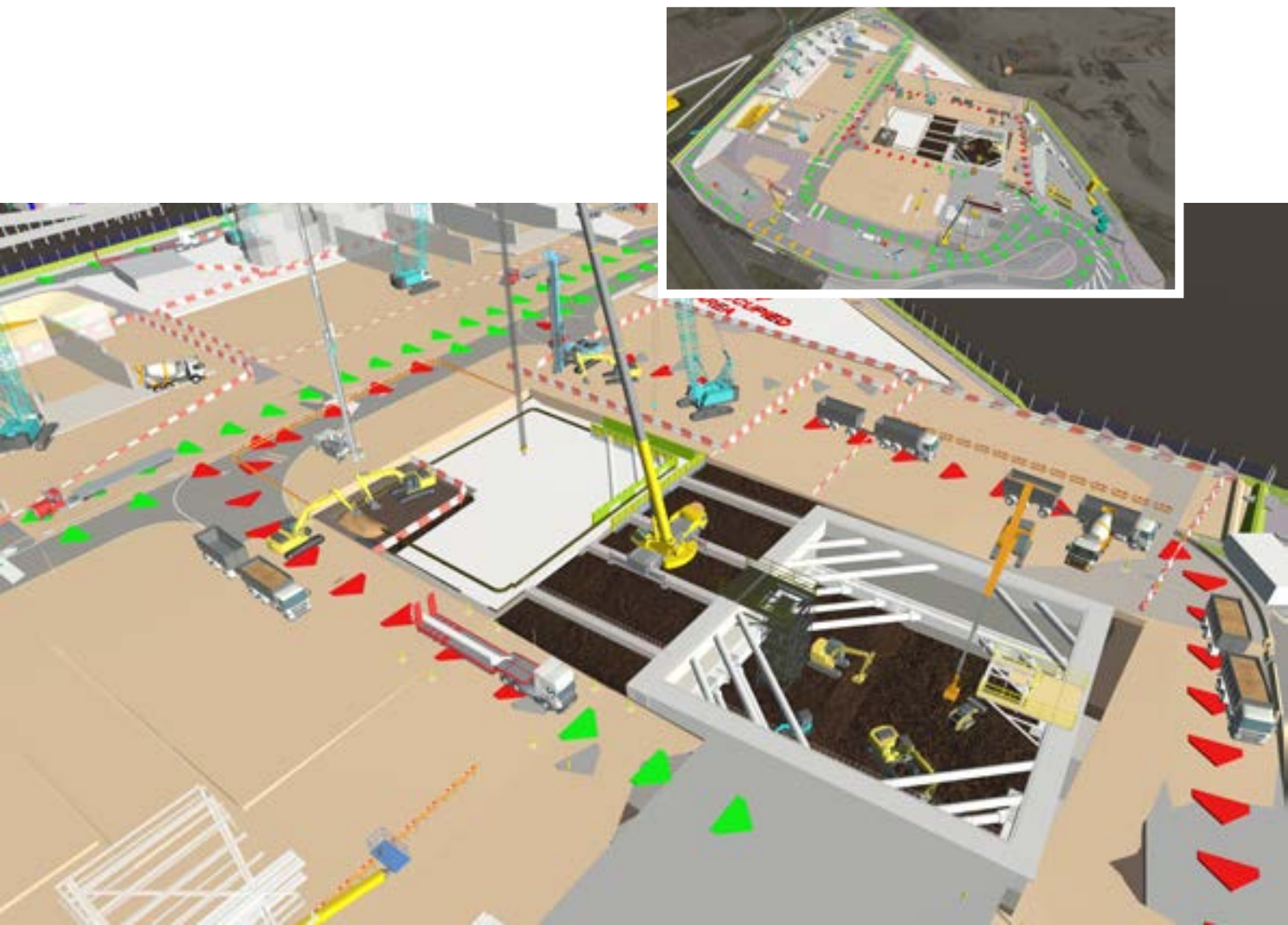
In near-real time, IDP produces integrated design, procurement and construction programs, and cost plans at each design stage. Stakeholders can visualise the completed permanent works alongside the construction methodologies, temporary works, key interfaces, and plant and equipment needed to get there.

On live projects, our data analytics team continuously interrogates IDP data to assess performance, identify risks and opportunities, and develop forecasts and scenario planning.



Visual planning and analytics services:

- digital design and data set up, including PDS establishment, 3D model conditioning and schedule conditioning
- implementation of the Integrated Digital Planning process on projects and tenders
- development of bespoke 4D/5D models for specific constructability challenges
- methods engineering, constructability and planning advice
- analysis of planning data to:
 - assess time and cost performance
 - identify and resolve time and cost related risks
 - develop forecasts and undertake option and scenario planning
- provision of skilled ToBe Builder/IDP operators for project and tender implementation
- provision of skilled ToBe Builder/IDP operators for project and tender staff training.



Contacts



Digital design and modelling

Fiona Becchio

Associate Principal, BIM and Digital Transformation

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Perth

Summary

- over 20 years' experience in design and construction planning in Australia and the UK
- Bachelor of Arts (Behavioural Science), Macquarie University
- Post Graduate Certificate in E-Commerce Management, Macquarie University.

Relevant experience

- digital solutions consulting and applied digital project management
- development of BIM and open-format digital solutions for construction
- 4D project planning
- program development and management from tender through to delivery
- multi-disciplined design team coordination
- extension of time: forensic and claims experience.



Visual planning and data analytics

Nadia Gant

Principal, Digital Delivery and Virtual Construction

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Melbourne

Summary

- 20 years' experience in construction planning across Australia and the Middle East. Specialising in digital transformation and integrated digital delivery, Nadia leads EIC Activities' digital delivery and virtual construction capability. She holds dual degrees in Civil Engineering and Applied Mathematics from the University of Melbourne.

Relevant experience

- leadership of EIC Activities' digital delivery and virtual construction strategy, aligned with Integrated Digital Delivery (IDD) frameworks
- major commercial project planning support across CPB Contractors and CIMIC Group
- innovation in AI-driven forecasting, real-time data integration and planning automation
- forensic planning, claims analysis and schedule risk management on complex, multi-disciplinary projects.

About EIC Activities

EIC Activities is CIMIC Group's engineering and technical services business.

Our expertise in engineering and risk mitigation gives CIMIC Group a competitive advantage in winning and delivering profitable projects. We leverage the Group's collective experience, technical capabilities and technology to deliver our clients' objectives.

About CIMIC Group

CIMIC Group is an engineering-led services, construction and natural resources company with a history dating back to 1899.

Powered by 39,000 people, we deliver high-value, sustainable solutions across the lifecycle of assets, infrastructure and resources projects in around 20 countries.

CIMIC Group comprises CPB Contractors and Leighton Asia (engineering and construction), UGL and Sedgman (integrated solutions), Thiess (natural resources, 60% ownership), and Pacific Partnerships (development and investment), all supported by our in-house engineering consultancy, EIC Activities.





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