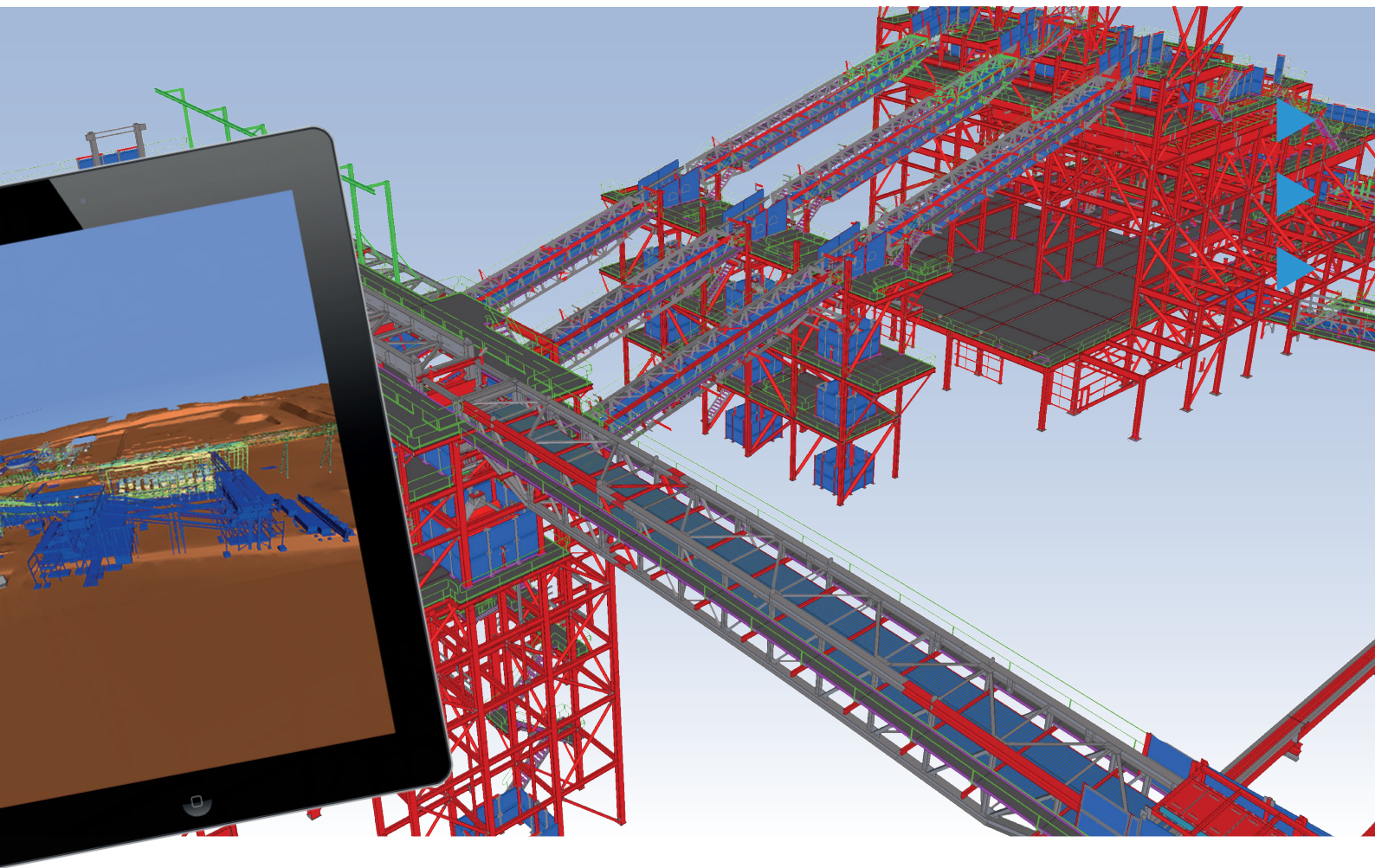




BIM Drafting Services Pty Ltd: BIM Does it All



BIM Drafting Services Pty Ltd

“By using a BIM workflow, Tekla Structures and Tekla BIMsight, we were able to ensure the project had the best possible result, the most effective processes and be delivered on time and on budget.”

- Paul Henderson, Project Manager, BIM Drafting Services

Solutions



- ▶ Tekla Structures
- ▶ Tekla BIMsight

overview

Recently the Cloudbreak Mine Site, an iron ore mine, completed an enhancement project to their site. Brownfields projects, such as this, are considered difficult to schedule due to the clashes and construction issues that are often not found until erection. BIM Drafting Services Pty Ltd was able to avoid costly mistakes, with near zero unforeseen items needing site rectification, by using a BIM workflow.



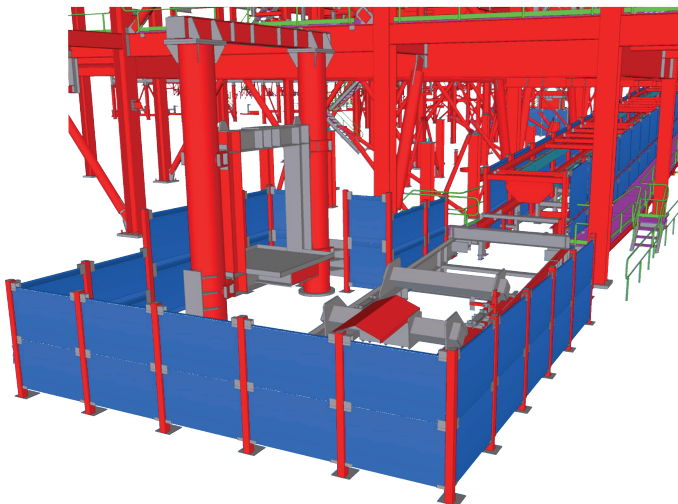
BIM Does it All

The Cloudbreak Mine site is located in the Pilbara region of Western Australia, and produces millions of tonnes of iron ore every year. The recently undertaken enhancement project added screening, crushing and de-sanding plants and had to be done with a minimum of disruption to the existing plant and its operations. BIM Drafting Services Pty Ltd was tasked with providing 3D modelling, steel detailing and BIM consultancy services for this project. This comprised of over 4 000 tonnes of structural, platework and mechanical steel. To accomplish this, BIM Drafting Services Pty Ltd chose to work with Tekla Structures and Tekla BIMsight.

BIM FOR FORECASTING

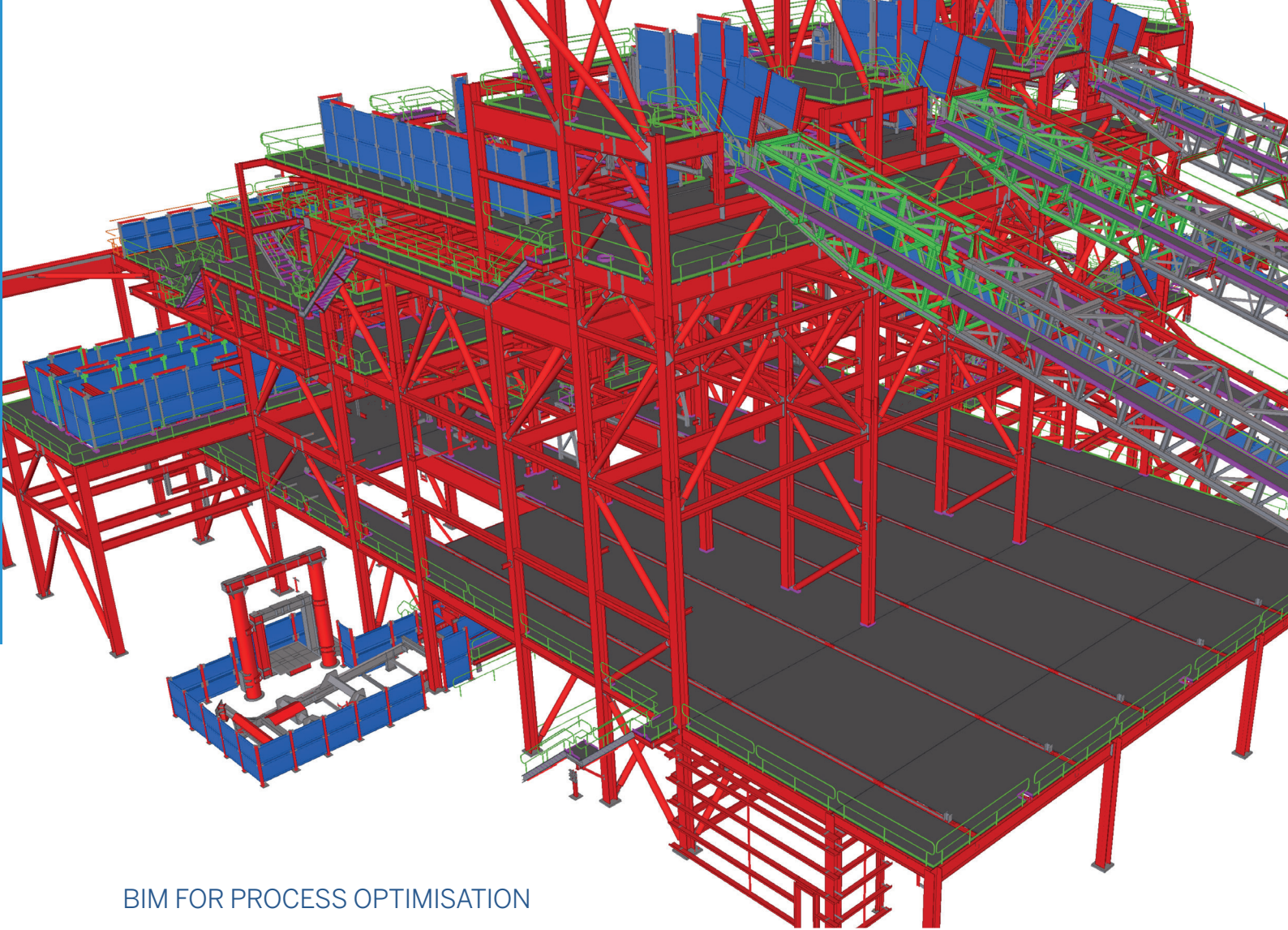
By 'back modelling' the existing plant using 'as built' fabrication drawings, BIM Drafting Services Pty Ltd was able to reduce the amount of unforeseen site work. Typically in brownfields projects the amount of unforeseen site work is expected to be quite high; however the Cloudbreak Mine Enhancement project had near zero unforeseen items needing site rectification.

This was a fantastic result as it meant all work was completed in the scheduled timeframes, and no delays to the running of the mine.



“Through the use of our BIM workflow, we were able to use the 3D model to make decisions on areas interfacing with the existing plant and provide the site with what they needed to execute the work quickly and efficiently.”

- Paul Henderson, Project Manager,
BIM Drafting Services Pty Ltd



BIM FOR PROCESS OPTIMISATION

BIM Drafting Services Pty Ltd was able to assist in reducing man-hours on site by controlling the release of steel to site. Working closely with the fabricators, and communicating using models viewed in Tekla BIMsight, they were able to ensure delivery optimisation and to prevent excessive storage of non-priority materials. The benefits of this were to eliminate mistakes that could have caused delays, additional costs, and, most importantly, reduced safety onsite.

“Having the models used by all stakeholders allowed for seamless, accurate and meaningful data to be extracted as required. Tekla BIMsight was used to identify and accurately visualise critical areas and resolve complex technical issues,” says Paul Henderson.

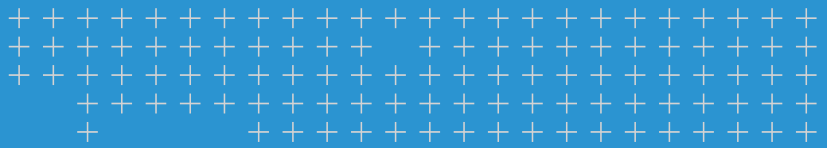
BIM FOR ON TIME AND ON BUDGET

Using models to communicate allowed BIM Drafting Services to share data easily, reducing the need for individual TQs, RFIs, and 2D drawings. This saved BIM Drafting Services Pty Ltd approximately 27 days of the 180 day project.

This was accomplished by enabling BIM Drafting Services Pty Ltd to work in an integrated way with all stakeholders. For example, packages were released into fabrication progressively, within weeks of the design for an area being complete. Resulting in huge time savings compared to the traditional method of waiting for design drawings to be issued prior to commencing 3D modelling.

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- Paul Henderson, Project Manager,
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Together we are shaping a smarter future for construction

TEKLA SOFTWARE BY TRIMBLE

Trimble is a technology company with a vision of transforming the way the world works. Trimble's construction offering ranges from total stations to advanced software, giving the industry tools to transform planning, design, construction and operation of buildings. The company also has products for trades like logistics and agriculture.

TRIMBLE BUILDINGS

In addition to Tekla, Trimble Buildings brands include names like SketchUp and Manhattan Software, targeting architects, engineers, fabricators, MEP contractors, general contractors and construction managers, and building owners. The software solutions promote constructible models and collaboration. Trimble Buildings offering blend groundbreaking innovations and practical features, helping the industry achieve transformative results.



TEKLA SOLUTIONS

Tekla software is at the heart of the design and construction workflow, building on the free flow of information, constructible models and collaboration. It is the people who make the difference, while Tekla gives tools for realising projects around the world from housing and bridges to factories and skyscrapers. Good communication and elimination of waste make the industry more sustainable and cost effective, improve your projects and in the end your customers' happiness.

- ▶ **Tekla Structures** is the most developed Building Information Modelling software on the market. It makes accurate, constructible modelling of any structure possible.
- ▶ **Tekla Structural Designer** gives engineers the power to analyse and design buildings efficiently and profitably.
- ▶ **Tekla Tedds** automates repetitive structural calculations.
- ▶ **Tekla BIMsight** is a free professional tool for construction project collaboration allowing anyone combine models, check for clashes and share information.
- ▶ **Tekla Field3D** is an easy-to-use 3D tool for utilising Building Information Models on mobile devices.



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