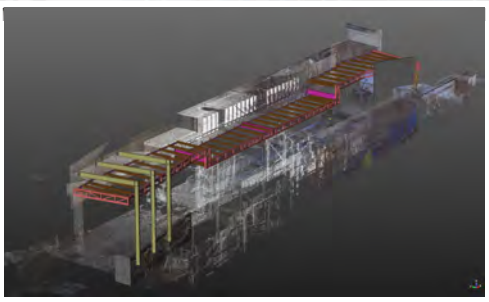
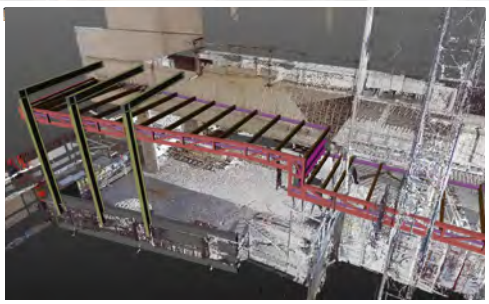
Project: Mixed Use Development, Vulture Street
Builder: Constructions Group
Location: Vulture Street, South Bank
Dates: May to September, 2016





Using the 3D Laser Scanner to scan each section of this job, we were able to identify all potential clashes between the existing site and our shop drawings. This made the entire construction process simple, effective, and efficient.

Justin Dennis, Project Manager, Watkins Steel

The Watkins drafting team were invaluable contributors on this project as they were able to foresee the majority of construction issues when designing and detailing the steelwork required for this job. By working with Watkins Steel to get the design right in the early stages, we achieved a stellar outcome with all our structural steel and metalwork components.

Brad Wootten, Director, Constructions Group

Watkins Steel was contracted by Constructions Group to fabricate and install the awnings, plant framing, roof top terrace framing, and screen frames for this mixed used development in South Bank. This job also required Watkins Steel to work in collaboration with Constructions Group to design and detail all steelwork before construction commenced.

MIXED USE DEVELOPMENT SUCCESS STORY

Challenges

- Constructions Group contracted Watkins Steel to both design and construct the steelwork for the project. The Watkins Team, in collaboration with Constructions Group, were responsible for first creating the structural drawings before going onto the fabrication and installation process.

- Installation of the mezzanine plant framing needed to be highly accurate so as not to cause any damage to the top coat painting on steelwork.

Solution

- Each section of the job was scanned using the **Faro Focus 3D X 130 Laser Scanner.** These scans were loaded into software to digitally re-create a '3D point cloud model' of the site with exact measurements.

- After registering the data from the '3D point cloud models', the in-house drafting team worked in collaboration with Constructions Group to design and detail all structural steelwork and metalwork using **Tekla Structures 3D Modeling Software**. Once the shop drawings were done, the completed Tekla models were imported into the '3D point cloud model' to check for any clashes and verify the exact size of all steelwork.

- The plans were approved quickly during the Request for Information (RFI) process, as snapshots of the Tekla model could be shared with Constructions Group during each phase of construction, along with the detailed shop drawings.

- Steelwork was processed and fabricated by the in-house production team using the **Voortman V808 Coping Machine,** which line-marked and cut holes as per the design drawings. Approximately 24 tonnes of steel was processed by the Voortman machine, saving 200 hours in fabrication time.

- Prior to the installation of steelwork, snapshots of any identified clashes between design drawings and steelwork were sent to Constructions Group. This enabled Construction Group to modify the existing site before steelwork arrived for installation. On-site rectification works were avoided, as all steelwork fit perfectly.

Benefits

Guaranteed 100% accuracy of site measurements using the laser scanner. All measurements were exact and could be linked to the drawings

Site measurement was performed with 3 laser scans Traditionally, site measurement on this project would have taken a week

Improved plan approval time frame. Using team viewer software to share information sped up the QA process

Reduced fabrication time by 200 hours using the Voortman V808 machine, processing 24T tonnes of steel

Saved time on installation - using the 3D laser scanner in conjunction with Tekla software ensured that all steelwork was cut to size - avoiding rectification work during installation

Make your project a success with the Watkins Steel difference. Contact the Watkins team today.

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