Australia Post

How did we replace every piece of glass on an entire commercial building without impacting its 1,200-strong workforce?

Buildcorp

Buildcorp undertook this comprehensive building renewal of Sydney's 219-241 Cleveland Street with the high stakes challenge of ensuring Australia Post's operations in the 33,000m2 building remained on track. The project lasted for 40 weeks, and the upgrade works included:

- Overhauling the street presence by replacing all 2,000 façade panels with energy efficient glass and upgrading the overall appearance of the existing façade
- Building a new central glazed entry portal to transform the entrance and lobby
- Consolidating the Australia Post offices from throughout the building to an interconnected space on levels two and three
- Upgrading building services to the latest energy efficient technology

To ensure the entire building didn't turn into a construction site, Buildcorp developed and tested a range of innovative design options and construction methodologies as part of a consolidated six week period of Early Contractor Involvement (ECI). During this time a full team was on site to investigate and document the building inside and out, understanding firsthand its constraints and opportunities.

Façade innovation

The most challenging aspect of the project was the façade transformation and the team had to identify the best way to achieve the modernised design without having to go through the costly process of replacing the whole façade. As well as replacing all of the glazed panels, a simple solution was developed to cover the existing window framing with new aluminium capping to achieve a different colour and finish. This clip-on system was a first for façade upgrades and, after testing, proved to be much simpler and less costly to implement.

Scaffolding the entire building wasn't an option as it created too much darkness and incurred a high cost. The team came up with another innovative construction 'first' by designing a custom mono-railing system that could support the suspension of a swing stage and a hoist to carry the glass to the workface. This new system first passed all the tests for safety, noise and vibration limits.

Design collaboration delivers $5m in cost savings

To keep within project budgets from the outset, a range of design and delivery options were developed in the ECI stage and Buildcorp then worked with the client progressively to select the best combination of options to suit the budget. This process, together with the testing of any new ideas, saved the client approximately $5m, and avoided the need for any re-work. Key areas of savings included:

- $2m by opting for the façade upgrade solution rather than a full replacement
- $200,000 by utilising a solution for the frame of the new glass entrance atrium which replaced stainless steel cladding in the higher levels with an aluminium composite
- $500,000 by opting to keep the existing lower level façade's granite finish, and treating it with sandblasting and sealing (this also negated the need to cover it in tiling which could compromise its stability)

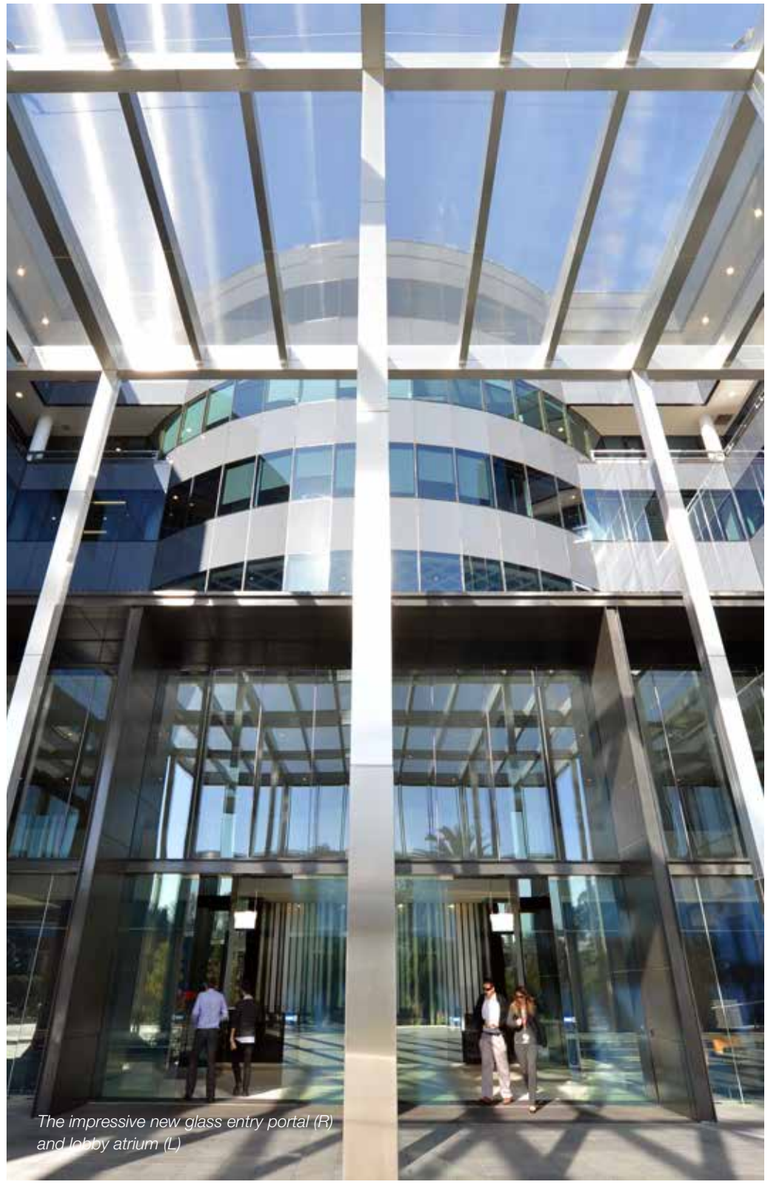
People, planet, profit

With around 1,200 people every day going through the premises for work and business, the safety and continuity of those working within the building was the number one priority. In addition to the Buildcorp ISO Accredited Safety System controlling works, four key safety initiatives were adopted: daily communication with project stakeholders, consultation and co-operation, safety awareness and safe access management.

Construction methodologies and tools were selected specifically for their ability to keep noise and vibration to a minimum, including large cranes to lift larger concrete elements (instead of cutting them down) and the use of wire saw machines instead of jackhammers.

The building's transformation aimed to make it the first project to achieve all three Green Star ratings (5-Star Green Star Design, As Built and Interiors) as well as 5-Star NABERS Energy Tenancy and 5-Star NABERS Base Building Rating. To achieve this, Buildcorp undertook a cost-benefit analysis of the sustainability features which enabled the client to make decisions on what to include. The final features, which included the largest solar panel installation on a commercial building in Sydney, delivered an optimal, green, healthy workplace and achieved all of the sustainability rating aspirations.

The custom mono-railing swing stage system



The impressive new glass entry portal (R) and lobby atrium (L)

"I would like to thank you for your team's efforts in helping to deliver the Australia Post Project at 219-241 Cleveland St, on time and on budget. Any time that a project is required to be undertaken in an operating environment, unexpected challenges will always present themselves. The way your team managed those challenges, responded to tenant concerns, and delivered the project was exemplary.

JUSTIN IBRAHIM
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