



built environment collective

<BE•Collective>

engineered design & management



Mining, Heavy Industry & Manufacturing

Capability Statement

becollective.net

“

We challenge mediocrity & strive towards Client relationships & project team associations where a collective approach is championed in recognition of enhanced outcomes.

”

John Tuxworth
Managing Director
BE Collective

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Our Company

Built Environment Collective is an award winning Australian-based design & project management consultancy offering enhanced Client outcomes via integrated solutions & a holistic approach to design & construction.

Founded on the 18-year international experience of Managing Director, John Tuxworth, the company provides a unique value-adding contribution across a range of market sectors and project types.

Our People

BE Collective is comprised of diligent, passionate consultants, who utilise their professional expertise to facilitate optimal Client outcomes.

We maintain a rigorous approach to Continuing Professional Development (CPD). In addition of the commitment required by the relevant institutes and councils, CPD targets are mandated as part of each staff member's employment contract.

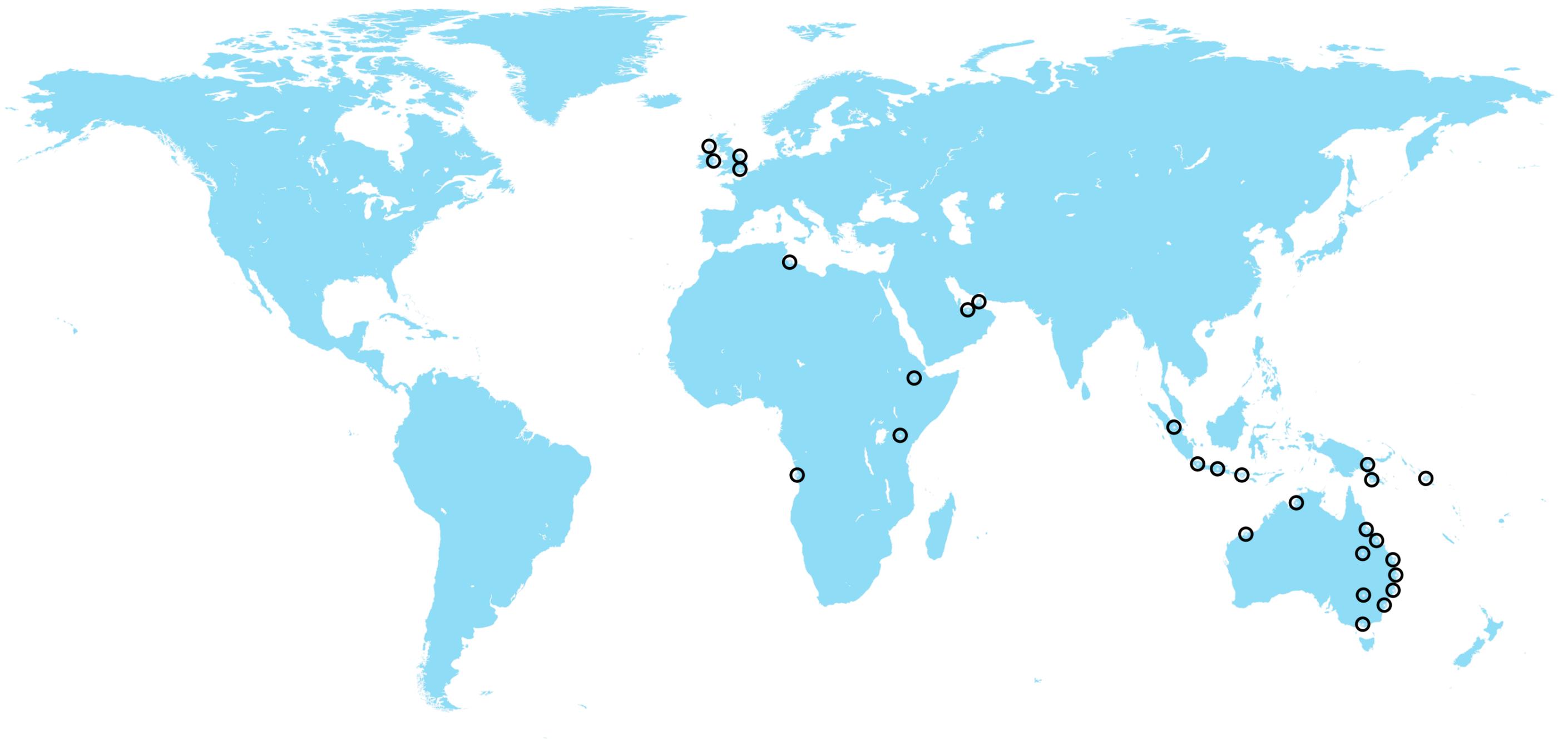
The Managing Director, John Tuxworth, contributes technically across all disciplines. John's tertiary education started at QUT's school of Civil Engineering. Following this John spent several years abroad working for Maunsell (Aecom) in Indonesia, Waterman Partnership in London, and Michael Punch and Partners in Dublin.

John's interest in becoming a multi-discipline building professional saw him undertake MBA studies through Latrobe University. John is also one of the few structural/civil specialists to be accredited as a Green Star Professional.



Australia Post Mail Sorting Centre,
Gold Coast

From our head office in Brisbane we have delivered projects as far as Angola, on the west coast of Africa, to Tonga in the Pacific.



Our Capabilities

Our Team of experienced professionals employ advanced analytical tools to drive highly functional & fit-for-purpose development.

We design buildings, structures, and operational works to a Client's detailed specifications and eliminate unnecessary costs, whilst still achieving compliance with Australian and international building codes. A strong focus on collaboration with other design team members and the contracting team benefits our clients by integrating a larger pool of ideas and experience.

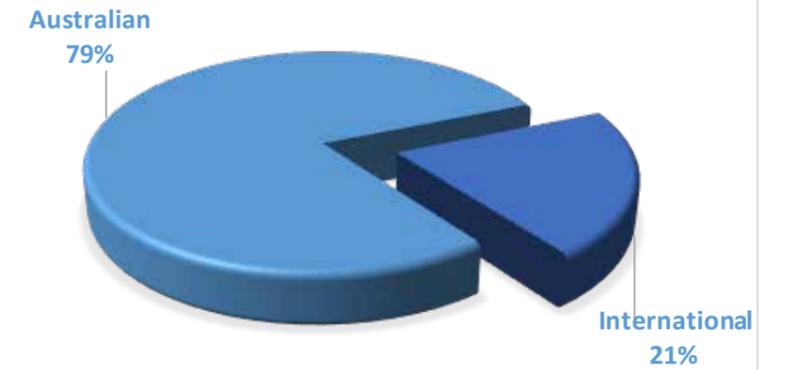
Our designs respond positively to the local environment with a focus on reduced maintenance and operating costs. We offer a multi-disciplined experience to assist with the reduction of materials and utilities requirements, and the maximisation of natural light and ventilation.

In addition, we offer experience with environmentally sustainable systems such as solar heating, rainwater harvesting and swales. Our innovative approach to buildability is based on construction techniques which lend themselves to safety and efficiency.

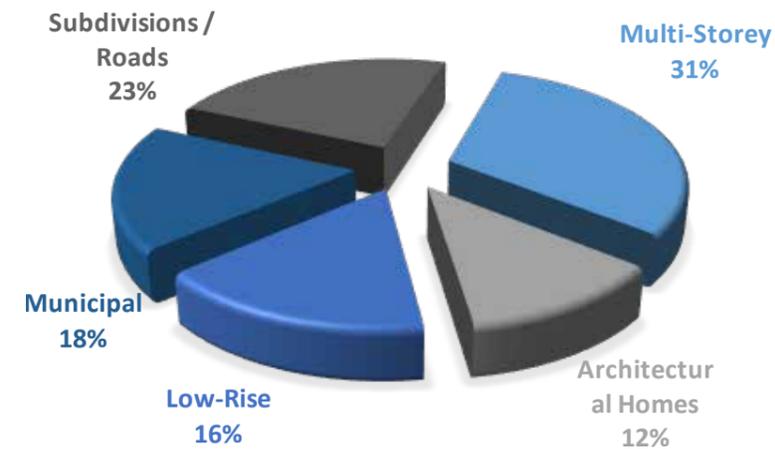
We work hard to ensure that Client objectives and outcomes are clearly defined from the outset. Our hands-on approach to project management assists to drive each project towards delivery, with an emphasis on quality, cost and program.

Our Business

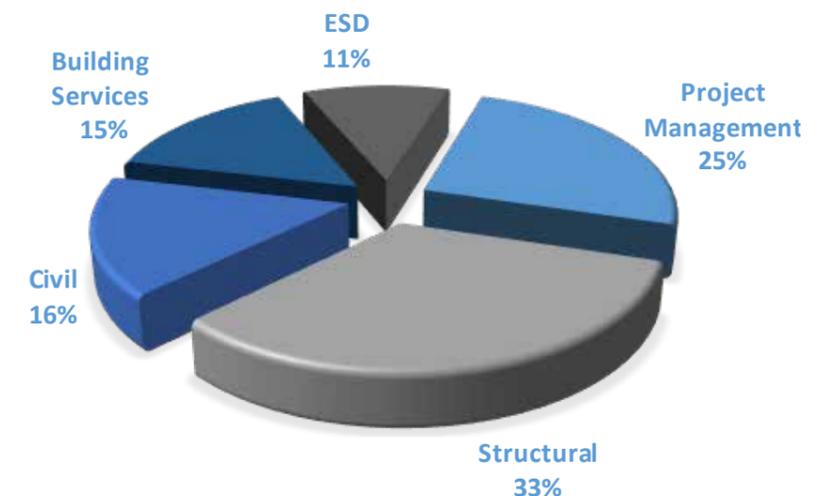
BY REGION



BY DEVELOPMENT TYPE



BY DISCIPLINE



Our Expertise

We have expertise in the design of a wide range of structures for Australia's mining, heavy industry and manufacturing sectors, including:

- > Workshops/Warehouses, assembly lines & process structures, silos, heavy lifting, temporary accommodation.
- > Designs utilise the latest engineering software to enable efficient use of materials.
- > Tailored to the client's needs.

Mining, manufacturing and heavy industry

- > A wide range of solutions for the mining, manufacturing and materials handling industry, including process plant buildings, temporary accommodation and maintenance support services.

Structural Steelwork

- > Long-span structures.
- > Heavy lifts.
- > Assembly lines.

Mining Camps & Towns

- > Design of purpose-built site accommodation and demountable/ 'containerised' village facilities.

Commodity Storage Buildings & Silos

- > From simple shelters through to fully enclosed silos.
- > Use of external structure and inside sheeting to provide an internal finish that will not retain material. This creates ideal storage conditions, particularly if different grades of product need to be handled.

Alterations, Additions & Refurbishment

Site Infrastructure

- > roadways/pavements, culverts/bridges.
- > storm water management plans.
- > erosion & sediment control plans.





Suncorp Stadium,
Brisbane

01 **PROJECT:** Suncorp Stadium (Lang Park) Roof Steelwork, Brisbane.
SIGNIFICANCE: mining/heavy industry | heavy lifting | long span structures | site supervision
CAPITAL COST: \$15 million

Secondment of BE Collective director, John Tuxworth, to the steel fabrication and erection company for a 9-month period during the critical construction phases of this high-profile structure. Support included full design analysis of temporary works and erection including:

- ▶ 70+ design analysis cases
- ▶ analysis of large-form hollow-sections
- ▶ 140m long, 170 tonne lifts

02 **PROJECT:** Palm Oil Factory & Shallow Water Port, Sumatra Indonesia
SIGNIFICANCE: Industrial | manufacturing | site supervision

Palm oil is found in approximately 50% of all food and grocery products. Despite major issues with respect to deforestation, a well managed mill is virtually self sufficient in its energy requirements. The fibres, and sometimes part of the EFB, are used as fuel for the boilers, which provide sufficient steam for power generation. The power produced by the boilers is usually sufficient to cover the operational requirements of the mill, and also the housing needs of workers.

Design & inspection of industrial, process, and shallow water wharf structures





04

PROJECT: Queensland Alumina Ltd (QAL) Causticiser Tanks, Gladstone
SIGNIFICANCE: industrial | manufacturing | refining

QAL is one of the world's largest alumina refineries and is an integral part of the coastal community of Gladstone in Central Queensland.

Causticiser Tanks form part of the aluminium refining process, and the design of several new 20m-high tanks and associated gang-ways and platforms was part of an ongoing expansion of the plant. QAL was established in 1967 and is recognised as the 'world's most modern alumina plant'.



03

PROJECT: Volvo/Mack Truck Integration Project, Wacol
SIGNIFICANCE: manufacturing, industrial, alterations & additions
CAPITAL COST: \$15 million

Volvo acquired Renault Véhicules Industriels, including Mack Trucks, in 2000. Following this merger assembly plants in Australia were integrated, with production of Mack trucks moved to Volvo's existing plant at Wacol.

This necessitated structural design of:

- ▶ a new mega-warehouse storage facility
- ▶ additions to the existing factory and office buildings
- ▶ 8 new assembly lines/gantry cranes for Mack Trucks



05

PROJECT: East Arm Bulk Liquids Berth Extension, Port of Darwin
SIGNIFICANCE: industrial, mining alterations & additions

This project involved third-party structural review of a new tanker facility, including berthing dolphins and jetty. The Port of Darwin is the service and supply base for the offshore and onshore oil and gas industry in Northern Australia.

Expansion of the facility enabled bulk liquid vessels up to 70,000 tonnes DWT to be accepted in the Port.

06

PROJECT: Australia Post Mail Centre, Gold Coast
SIGNIFICANCE: industrial, alterations & additions

BE Collective were appointed as structural and civil consultants for alterations and additions to the Australia Post Mail Centre at Bundall in 2011.

The mail centre runs 24 hours a day 6 days a week and thus construction programming was a key driver for the project. Australia Post decided on a Design & Construct (D&C) delivery method, appointing Watpac Specialty Services as contractor.

The project features a 1000m² warehouse addition, new plant platform and minor interior alterations, as well as 5000m² of new concrete & asphalt pavements, stormwater drainage and vehicle crossovers.



Our Values

We challenge mediocrity & strive towards Client relationships & project team associations where a collective approach is championed in recognition of enhanced outcomes.

We are acutely aware of the adverse impact that current development paradigms have on the Triple Bottom Line sustainability.

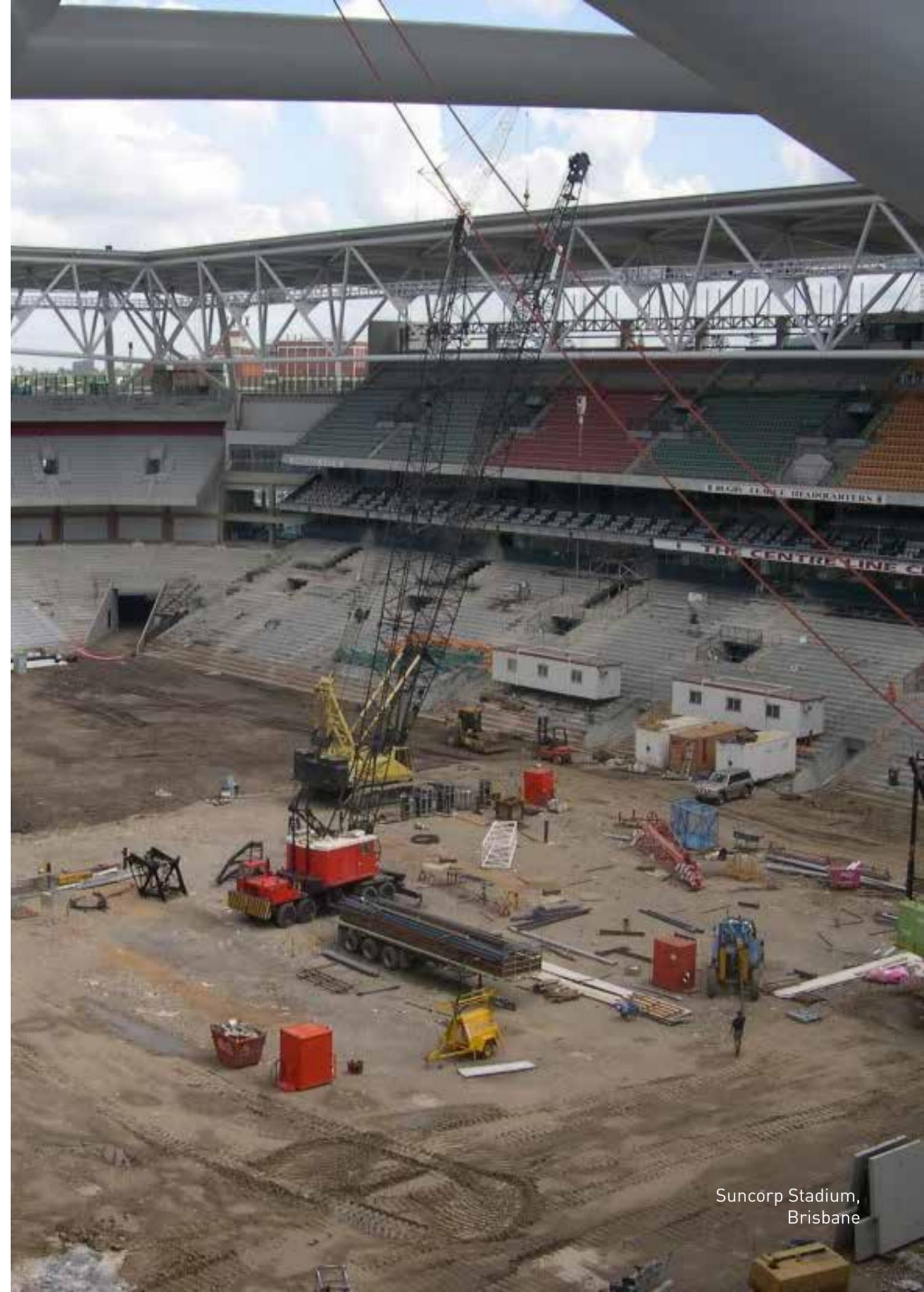
We believe in professionals adopting a multi-disciplinary perspective in delivering projects.

Our Vision

To be the first choice of Clients who value quality, & to be recognised as adding-value [as opposed to being just another commodity service] - by providing creative solutions based on diversified skill and experience.

To lead positive triple-bottom-line change in the construction industry.

To found our business success on a passionate approach towards Continual Professional Development targets in excess of the commitment required by the relevant institutes and councils.



Suncorp Stadium,
Brisbane



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Sydney | Brisbane | Toowoomba | Port Moresby

