PRELIMINARY PRECAST CONSULTATION | DESIGN & LIFT CERTIFICATION | MANUFACTURED & MANAGED SERVICES

Aus-Precast Pty Ltd provides a strategic precast concrete service to commercial, mining and government organisations. With our expertise the consultation ensures the right product for the right purpose which in turn helps an organisation improve their performance.

Established in 2019, Aus-Precast is committed to excellence and creating innovative and flexible solutions for our State and National Clients.

What sets Aus-Precast apart from the competition?

- Our People
- Performance-Bases Processes
- Integrated Solutions Teams
- Client Relationship Management
- Strategic Mix of Technology and Business

CORE CAPABILITIES

Our technology experts and business professionals analyse research, design and implement solutions in:

- Preliminary Precast Consultation
- Lift Study and Structural Design Certification
- Manufacture of High-Quality Precast Elements

CONSULTING

Our Consulting Service focus on developing robust, secure, and stable solutions for your business. By incorporation industry best practices into your business processes and management strategies, we can help you stay ahead of the competition and better serve your customers. Our services include:

- Precast Strategy and Planning Support
- Change Management and Facilitation Support
- Financial/Statistical Analysis

MANUFACTURING

Our Manufacturing Services focus on developing robust, secure, and stable engineering solutions for your business. By incorporating common sense solutions into seeming daunting deliverables, we can ensure at the start of the project that we will safely deliver the product to completion. Our Services include:

- Precast Concrete Innovation - Connecting Mechanical Footprint
- Commercial Off the Shelf (COTS) Integration
- Design - Structural Certification
- Lift Study - Verified Elements
- Manufacturing - 400m3 per month
- Associated Precast Metal Fabrication
- Quality Assurance

ALLIANCES

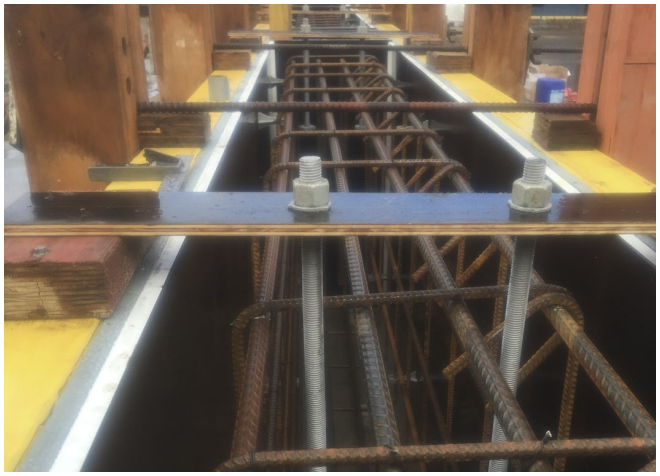
MAJOR CORPORATIONS

Alcoa

Fortescue

HANCOCK IRON ORE

SRG GLOBAL



CYCLONE BLOCKS

Aus-Precast, based in Perth, specializes in custom-made precast concrete products, including cyclone tie-down blocks designed for securing structures in extreme weather conditions. Their blocks are engineered with embedded lifting points, making them suitable for rigging and transportation.

Fork tine recess is an optional addition, for rough terrain with positive retention.

These tie-down blocks are versatile and can be used for various applications such as holding down marquees, tents, gazebos, temporary buildings, and asset protection for car yards and storage facilities. They are made from quality assured materials and are poured without cold joints, ensuring durability and environmental sustainability.

For projects requiring specific dimensions or features, Aus-Precast offers custom manufacturing options. They can incorporate attachments and accessories like lifting points, tie-down points, and reinforcing mesh into their precast concrete products. Using CAD technology, they can transform conceptual sketches into final blueprints, ensuring that the products meet the unique requirements of each project.


Aus-PRECAST QA
Aus-PRECAST QA
Aus-PRECAST QA
Aus-PRECAST QA
Aus-PRECAST QA
Aus-PRECAST QA


Aus-PRECAST QA
QA
QA

TRANSPORTABLE SLEEPERS

Precast sleepers are reinforced concrete blocks or beams manufactured off-site and then delivered to the installation location. They serve as foundation supports for transportable or modular buildings, distributing the load and providing elevation and stability.

TYPICAL USE & CONFIGURATION

PLACEMENT

Usually installed in rows under the chassis or bearers of the building.

SPACING

Depends on structural design, but generally every 1.2 to 1.8 meters along load-bearing walls.

SET ON

Compacted ground or a crushed rock base.

CONNECTION

Transportable buildings are fixed via an engineered hold down plate.

COMMON SIZES & SPECIFICATIONS

While custom sizes can be made, common dimensions include:

Length: 2800 - 3500 mm
Width: 600 - 900 mm
Height: 300 - 900 mm
Weight: 1000 - 9500 kg (depending on size)

REINFORCEMENT

Steel-reinforced for durability and load capacity.

BENEFITS OF USING PRECAST SLEEPERS

FAST INSTALLATION

Delivered ready to use; just place and level.

REUSABILITY

Can be relocated along with the building.

COST-EFFECTIVE

Minimal excavation or ground preparation required.

DURABLE

Resistant to moisture, pests, and environmental damage.

COMPLIANT

Easily engineered to meet building codes and wind/seismic requirements.


Aus-PRECAST
QA
Aus-PRECAST
QA
Aus-PRECAST
QA
QA

\

PRECAST FOOTINGS

Precast concrete footings are structural elements manufactured off-site in a controlled environment and transported to the construction site for installation. Compared to cast-in-place footings, precast footings offer several advantages, especially in terms of project scheduling.

WEATHER INDEPENDENCE

Manufacturing occurs in a controlled facility, so bad weather doesn't impact production.

Onsite work is minimized, reducing weather-related delays.

IMPROVED PROJECT SCHEDULING

JUST-IN-TIME DELIVERY

Precast footings can be delivered as needed, streamlining site logistics.

Better alignment with compressed construction timelines and fast-track projects.

Predictable lead times from the factory help avoid surprises or delays.

FEWER INSPECTIONS AND REWORK

Precast elements are quality-controlled at the plant, reducing the need for on-site inspection.

Reduced chance of on-site defects (e.g., honeycombing, improper curing), which minimizes rework and schedule disruptions.

REDUCED LABOR REQUIREMENTS

Less skilled labour is needed on-site for forming, pouring, and finishing.

Smaller crews can handle installation, which may ease labour constraints and accelerate the project.

EFFICIENCY IN REPETITIVE OR MODULAR PROJECTS

- Ideal for modular buildings, solar farms, or light industrial structures where footings are repetitive.
- Mass production of identical units offsite increases efficiency.
- Ideal Use Cases for Precast Footings with Schedule Benefits. Fast-track commercial and industrial projects.
- Temporary structures (easily removable).
- Modular construction.
- Remote locations with limited labour availability.
- Solar panel installations, communication towers, or light poles.

REDUCED ON-SITE CONSTRUCTION TIME

NO CURING DELAY

Precast footings are already cured upon arrival, eliminating the waiting time required for on-site curing of cast-in-place concrete.

QUICK INSTALLATION

Footings can be set and levelled in a fraction of the time it would take to form, pour, and cure cast-in-place foundations.

PARALLEL WORKFLOWS

Precast elements can be manufactured off-site while site work (e.g., excavation, grading) is happening simultaneously.

PRECAST FOUNDATIONS AND PEDESTALS

Precast Foundations and Pedestals are structural elements that are manufactured offsite in a controlled factory environment, then transported and installed on-site, reducing construction time and improving quality control. Here's an overview of both components.

PRECAST FOUNDATIONS

DEFINITION

A precast foundation is a concrete base unit that supports a structure or load, typically replacing traditional cast-in-place footings.

COMMON TYPES

- Precast Footings: Used for columns, poles, or light structures.
- Precast Slab Foundations: Often used in modular buildings.
- Precast Pile Caps: Support grouped piles beneath columns or walls.

ADVANTAGES

- Faster installation
- High-quality control during fabrication
- Weather-independent construction
- Reduced labour costs on-site
- Reusable moulds reduce overall cost for repeated use

APPLICATIONS

- Modular buildings
- Light poles and signs
- Transformer pads
- Wind turbine bases
- Temporary or portable structures

PRECAST PEDESTALS

DEFINITION

Precast pedestals are vertical concrete components designed to elevate and support structural elements such as columns, equipment, or beams.

FUNCTIONS

- Transfer loads from above to the foundation
- Provide elevation (e.g., for flood resistance or clearance)
- Support industrial equipment or electrical gear

TYPICAL FEATURES

- Pre-installed anchor bolts
- Rebar protruding for splicing
- Chamfered or bevelled edges for aesthetics or formwork release
- Designed to specific load requirements

APPLICATIONS

- Industrial equipment supports
- Structural column bases
- Pipe rack supports
- Electrical transformer bases

DESIGN CONSIDERATIONS

- Soil bearing capacity (for foundation selection)
- Load-bearing requirements (dead + live + seismic)
- Connection details (grouting, doweling, anchor bolts)
- Transport and lifting (weight, lifting inserts)
- Thermal and moisture considerations

PRECAST BUNDED MODULES

A precast bunded module refers to a modular, prefabricated concrete structure that includes built-in containment (the “bund”) designed to prevent the spread of hazardous liquids–typically fuel, chemicals, or wastewater. These modules are commonly used in industrial, utility, or environmentally sensitive settings.

KEY COMPONENTS OF A PRECAST BUNDED MODULE

PRECAST CONSTRUCTION

- Made off-site using reinforced concrete.
- Delivered as a complete or sectional unit for quick installation.
- High durability and consistent quality.

BUNDED (SECONDARY CONTAINMENT)

- Integrated liquid-tight base and walls to contain spills or leaks.
- Designed to hold a specified volume (often 110% of the largest container stored inside).
- Prevents environmental contamination.

MODULAR DESIGN
Can be scaled or combined for larger containment areas.
Easily relocatable or reconfigurable for different site layouts. Includes access doors, cable entries, ventilation, or even utility penetration as needed.

COMMON USES
- Transformer enclosures (to catch oil leaks).
- Fuel tank containment.
- Chemical storage areas.
- Pump and valve stations.
- Wastewater treatment units.

ADVANTAGES
- Quick installation.
- Durable and low maintenance.
- Compliant with environmental regulations.
- Fire-resistant and structurally robust.

SECURE ACCESS, SIMPLIFIED SKIDCRETE - BOOMGATE MISSION
To inspire companies to choose a healthier, greener option through solar powered equipment. This is the beginning of innovative measures we have undertaken since 2017 by connecting the precast concrete industry with mechanical, electrical and carbon-neutral solar industries. Our aim is to compliment low-site interface requirements utilising the upper end of hazard management within the hierarchy of hazard control, by eliminating, substituting and engineering out.

PURPOSE
STOP - BOOM GATE is an innovation that removes the requirement of underground power, insitu concrete foundations and reducing risk on-site by reducing man hours through the construction process.

DESIGN FEATURES
STABLE PRECAST CONCRETE BASE
Sizes start from 1200mm x 800mm x 300mm in height, all bases come with galvanised fork tine recesses that are centrally positioned, offering positive retention while offloading and moving over uneven ground to their location for installation.

FAAC B680H
Automatic 24v Hybrid Barrier, supporting beam lengths from 3 to 8m. The electric over hydraulic motor supports a durable lifespan. The B680H barrier gate operator system consists of an aluminium beam with reflectors and optional lights, a steel upright profile and a metal cover.
The operator is mounted on the upright profile and made with a hydraulic unit and two plunging pistons connected to it by means of a rocker arm, rotate the beam. The beam weight is balanced with a spring fitted on one of the two plunging pistons. The electric control equipment is also housed on the upright profile, inside a transparent plastic compartment. The whole operator is protected by the external metal cover. The system features an adjustable electronic anti-crushing safety, a devise that guarantees stopping and locking of the beam in any position, and a convenient manual release for use in case of power malfunction.

MOUNTING POLE / SOLAR AND CONTROL PANEL
Sturdy 80mm NB galvanised post with fabricated base plate. The control panel is powder coated and easy to access for programming and battery maintenance.

SITE-SPECIFIC DESIGN
- Municipalities
- Optional EFTrans for unmonitored parks and garden
- Mining Sector - optional light fittings
- Security - optional camera 3D modelling for project-specific requirements.

PORTABLE SPEED CONTROL THAT LASTS SKIDCRETE SPEED SIGN

MISSION

To inspire companies to choose a healthier, greener option through solar powered equipment. This is the beginning of innovative measures we have undertaken since 2017 by connecting the precast concrete industry with mechanical, electrical and carbon-neutral solar industries. Our aim is to compliment low-site interface requirements utilising the upper end of hazard management within the hierarchy of hazard control, by eliminating, substituting and engineering out.

PURPOSE

STOP - LIGHT POLE is an innovation that removes the requirement of underground power, Insite concrete foundations and reducing risk on site by reducing man hours through the construction process.


SHARED ZONE
5:00 AM TO 5:45 AM
SHARED ZONE
5:00 AM TO 5:45 AM

DESIGN FEATURES

STABLE PRECAST CONCRETE BASE

Sizes start from 1000mm x 1000mm x 600mm in height, all bases come with galvanised fork tine recesses, that are centrally positioned, offering positive retention while offloading and moving over uneven ground to their location for installation.

AD303 ELECTRONIC SPEED LIMIT SIGNS (ESLS)

Highly visible and innovative, creating instant awareness of different speed limits to passing traffic.

The Electronic Speed Limit signs that we produce feature an ultra-bright, high quality and long-life LED technology which can display up to 3 different speed limits from 10 to 110kph in increments of 10 or 5. It can be remotely controlled, and it is manufactured as mains or fully solar powered for 24/7 operation.

Low maintenance, superior reliability, power efficiency and easy installation make our electronic speed limit signs the ideal choice for Australia's harsh environmental conditions. It is available in the Australian standard types A, B, C & D sizes and we can customise it to meet any road authority requirements.

SOLAR PANEL

40w solar system, 24-hour long-life LED technology illumination.

SIGNAGE

Signs are custom made suitable for site conditions.

MOUNTING POLE

Sturdy 80mm NB galvanised post. The control panel is powder coated and easy to access for programming and battery maintenance.

FEATURES

- Ultra-bright, weatherproof and vandal resistant LED display
- Display up to 3 different speed limits from 10 to 110kph
- 4 rows of programmable flashing annulus in red
- Automatic brightness adjustment
- Time and Date scheduled change times
- Local and Remote (optional) programming
- Very long service life
- Synchronised flashing of annulus in Master / Slave pairs
- High quality powder coated aluminium enclosure
- Lockable & secure enclosure
- Impact resistant polycarbonate screen
- Easy installation & low maintenance requirements
- Conforms to road authority requirements
- Facility key switch for Road Workers / Police / Emergency Services.

SITE-SPECIFIC DESIGN

- Municipalities
- Mining Sector - Optional light fittings
- Security - Optional camera
- 3D modelling for project specific requirements.

SECURE ACCESS, SIMPLIFIED

SKIDCRETE - BOOMGATE MISSION

To inspire companies to choose a healthier, greener option through solar powered equipment. This is the beginning of innovative measures we have undertaken since 2017 by connecting the precast concrete industry with mechanical, electrical and carbon-neutral solar industries. Our aim is to compliment low-site interface requirements utilising the upper end of hazard management within the hierarchy of hazard control, by eliminating, substituting and engineering out.

PURPOSE

STOP - BOOM GATE is an innovation that removes the requirement of underground power, insitu concrete foundations and reducing risk on-site by reducing man hours through the construction process.

DESIGN FEATURES

STABLE PRECAST CONCRETE BASE

Sizes start from 1200mm x 800mm x 300mm in height, all bases come with galvanised fork tine recesses that are centrally positioned, offering positive retention while offloading and moving over uneven ground to their location for installation.

FAAC B680H

Automatic 24v Hybrid Barrier, supporting beam lengths from 3 to 8m. The electric over hydraulic motor supports a durable lifespan. The B680H barrier gate operator system consists of an aluminium beam with reflectors and optional lights, a steel upright profile and a metal cover. The operator is mounted on the upright profile and made with a hydraulic unit and two plunging pistons connected to it by means of a rocker arm, rotate the beam. The beam weight is balanced with a spring fitted on one of the two plunging pistons. The electric control equipment is also housed on the upright profile, inside a transparent plastic compartment. The whole operator is protected by the external metal cover. The system features an adjustable electronic anti-crushing safety, a devise that guarantees stopping and locking of the beam in any position, and a convenient manual release for use in case of power malfunction.

MOUNTING POLE / SOLAR AND CONTROL PANEL

Sturdy 80mm NB galvanised post with fabricated base plate. The control panel is powder coated and easy to access for programming and battery maintenance.

SITE-SPECIFIC DESIGN

- Municipalities - Optional EFTrans for unmonitored parks and gardens
- Mining Sector - Optional light fittings
- Security - Optional camera
- 3D modelling for project-specific requirements.

SKIDCRETE-SHIPPING

SECURE, COMPLIANT, READY TO GO SKIDCRETE - SHIPPING BASE

Introducing a series of Shipping Container Foundations that are suitable for all Australian conditions and environments. Aus-Precast has realised a need in the marketplace for an engineered precast concrete foundation that is ready for immediate use.

PURPOSE

Provide a structurally designed foundation, with off the shelf corner castings, that locks the container in place, coping with the worst load cases arising through AS 1170 Structural Actions. This system eradicates the need for external rigging and due to the flush fit finish; thereby removes all external tripping hazards. This offers significant improvements for workplace KPI's.

DESIGN FEATURES

Corner Castings, compatible with static shipping container twist lock systems. Engineered cast in lifting anchors Fork tine rebates and heavy-duty concrete mix.

RANGE

Type 1 – 2440 W x 600 L x 300 H – Weight 1000kg
Type 2 – 2440 W x 1200 L x 300 H – Weight 2125kg
Type 3 – 2440 W x 1200 L x 400 H – Weight 2834kg
Type 4 – 2440 W x 1200 L x 600 H – Weight 4250kg
Type 5 – 2440 W x 1800 L x 600 H – Weight 6376kg
Type 6 – 2440 W x 1800 L x 750 H – Weight 7970kg

Type / Region	A	B	C	D
1	10'			
2	20'	10'		
3	40'	20'	10-20'*	
4		40'	20-40'*	10-20'*
5			20-40'*	20-40'*
6			40'*	20-40'*

SKIDCRETE-MODULAR

SMART FOUNDATIONS FOR MODULAR SYSTEMS

Aus-precast and Raine Consulting have been working closely together in the research and the development of an innovative new product, purpose build for the mining sector. This is just the beginning of innovative measures we are undertaking within the precast concrete industry. Our aim is to compliment low site interface requirements utilising the upper end of hazard management within the hierarchy of hazard control. By eliminating, substituting and engineering out, we have patented and developed an industry leading product that surpasses current technologies.

PURPOSE

SkidCrete is an innovation that removes redundant structural steel from a wide range of mechanical equipment skids that house or populate process equipment utilised in a wide array of mining, process, food, fluid management and allied industries. Traditionally equipment is built on skids to allow higher levels of completion and for fabrication and testing to be conducted in metropolitan areas where there is a greater access to skilled labour, manufacturing and engineering resources. Conventionally this equipment has been built of structural steel skid and transported to site for installation on insitu concrete.

Thus, the role of the structural steel is redundant once the system gets to site. SkidCrete leverages the wide range of tilt panel technologies coupled with Commercial of the Shelf components (COTS) to realise a functionally equivalent monolithic concrete skid that is fabricated off-site, eliminating most of the structural steel with significant cost advantage.

DESIGN FEATURES

FERRULE THREADED ANCHOR

The primary device for securing a wide array of process equipment.

CAST IN CHANNEL

Cast in Channel provides flexibility for freedom of movement for items in the skids

LIFTING ANCHOR

Pre-Certified with a WLL standardised load range.

POST TENSIONING

Large equipment footprints require multiple substrates for logistical reasons. We have a post tensioning method, with guarantee of seal.

ELECTRICAL, EARTHING AND INSTRUMENT FEEDS

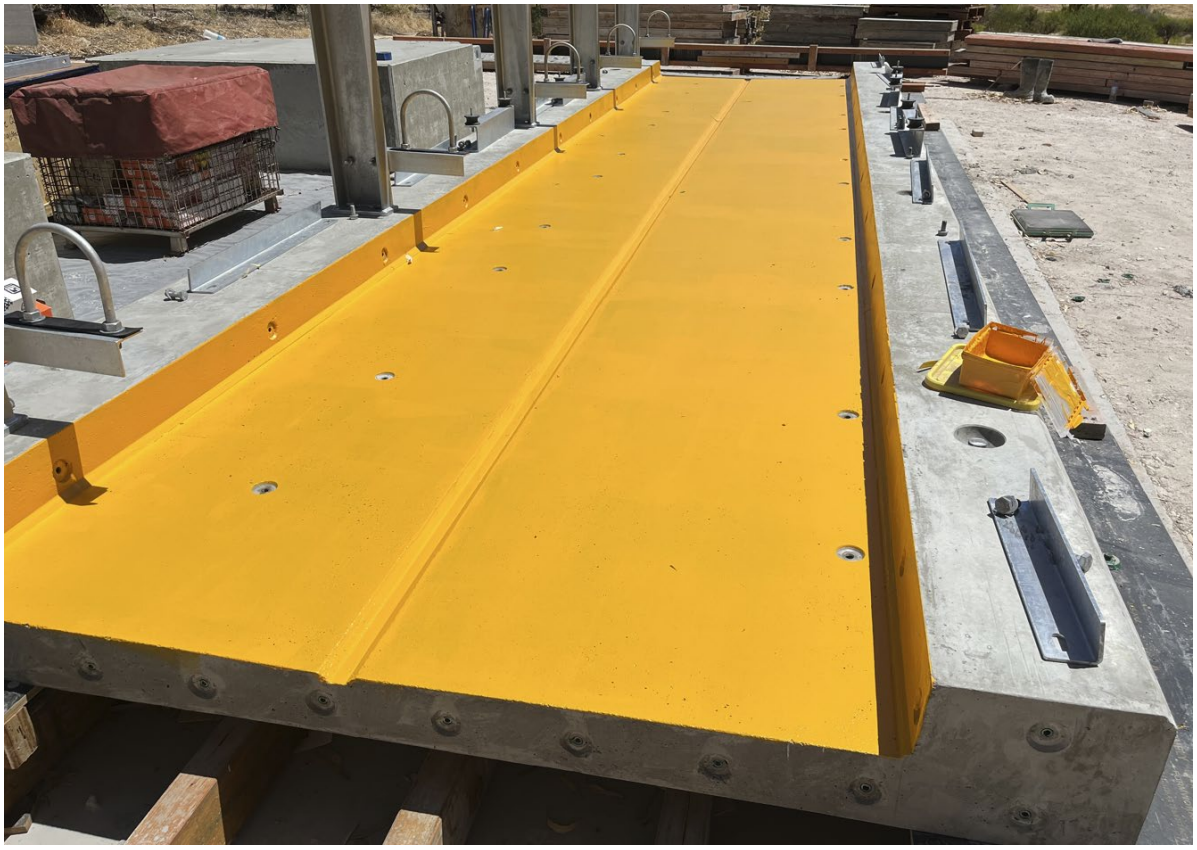
Flush fit, bell end electrical conduit is installed for mechanical footprint requirements.

MOTOR MOUNTS

Equipment operating rotational systems require Motor Mounts to absorb destructive frequencies from variable speed drives.

SURVEY MARKERS

The skids will be equipped with Survey Markers that will represent set-out points for each skid.




TONNE

STEEL FABRICATION

At Aus-Precast - Steel Fabrication, we deliver high-performance, custom-engineered steel components that meet the toughest standards of the precast concrete and mining industries. With decades of fabrication experience and a sharp focus on structural integrity, we partner with manufacturers and project managers to supply steel solutions that ensure safety, durability, and seamless integration into critical infrastructure.

SAFETY & QUALITY

We prioritise safety and deliver top-quality results every time.

END-TO-END SERVICE

We're with you from the first idea to final handover.

REAL VALUE

We focus on outcomes that bring real value to your business.

TIME-SAVING

We help you stay on track and save time on every project.

OUR CAPABILITIES

From precision welding to complex structural assemblies, our steel fabrication capabilities are tailored to meet the rigorous demands of precast construction and mining. We combine technical expertise with advanced machinery to deliver reliable, high-quality solutions—on time and to spec.

TAILORED FABRICATION FOR PRECAST NEEDS

We understand the precision and strength required in precast construction. Our team fabricates essential components like reinforcing cages, lifting assemblies, inserts, and pipe stands that align perfectly with concrete formwork and modular designs. Every product is manufactured for exact fit and reliable performance onsite.

BUILT TOUGH FOR MINING ENVIRONMENTS

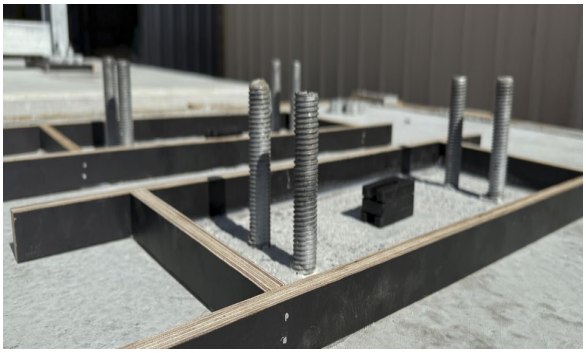
The mining industry demands steel that performs under extreme pressure and conditions. That's why we specialise in cyclone hold downs, structural hardware for NPI fuel facilities, and water processing infrastructure, all manufactured to meet or exceed industry standards.

ADVANCED MANUFACTURING & QUALITY CONTROL

Our facilities are equipped with state-of-the-art welding, cutting, and machining technologies, backed by strict quality assurance processes. From material traceability to finish inspection, we ensure each component is made to specification—every time.

COLLABORATIVE APPROACH, FAST TURNAROUNDS

We work closely with clients from initial design to final delivery, ensuring that every steel solution is fit-for-purpose and ready when needed. Whether it's a one-off custom job or a large production run, we pride ourselves on efficiency, communication, and reliability.



SMART DESIGN, REAL-WORLD RESULTS
ENGINEERING, DRAFTING & VALUE SOLUTIONS

We offer end-to-end engineering and drafting solutions—from value engineering and cost planning to detailed 2D and 3D modelling. Our team ensures every design is practical, compliant, and ready for construction.

VALUE ENGINEERING

Aus-Precast provides a systematic method to improve the total value of precast products and services by using examination of function. Value - Management - planning and delivery of projects with improved performance.

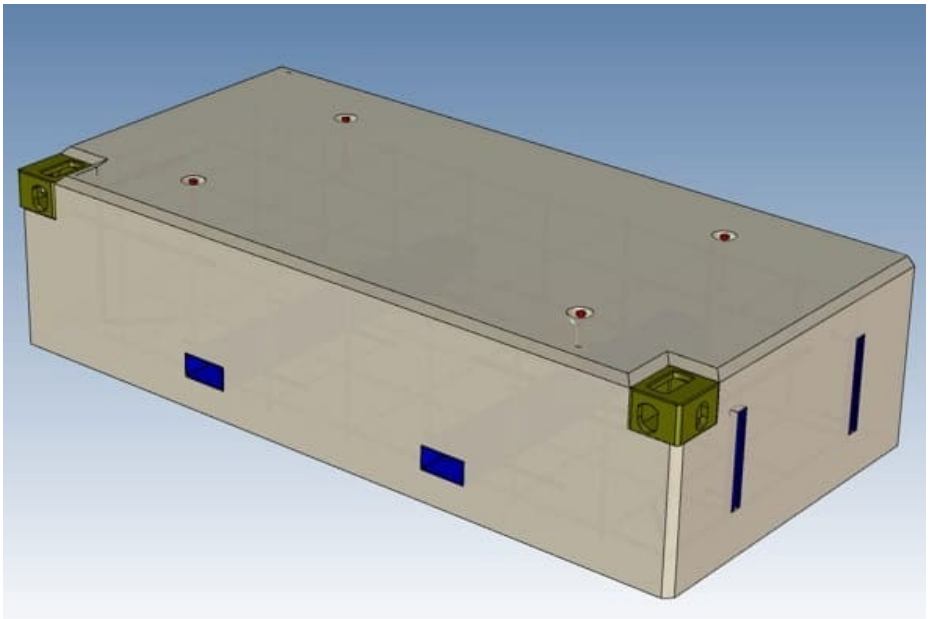
BUDGET AND COSTING

Aus-Precast is devoted the management of project cost, inclusive of optimum balance between cost, quality and time requirements.

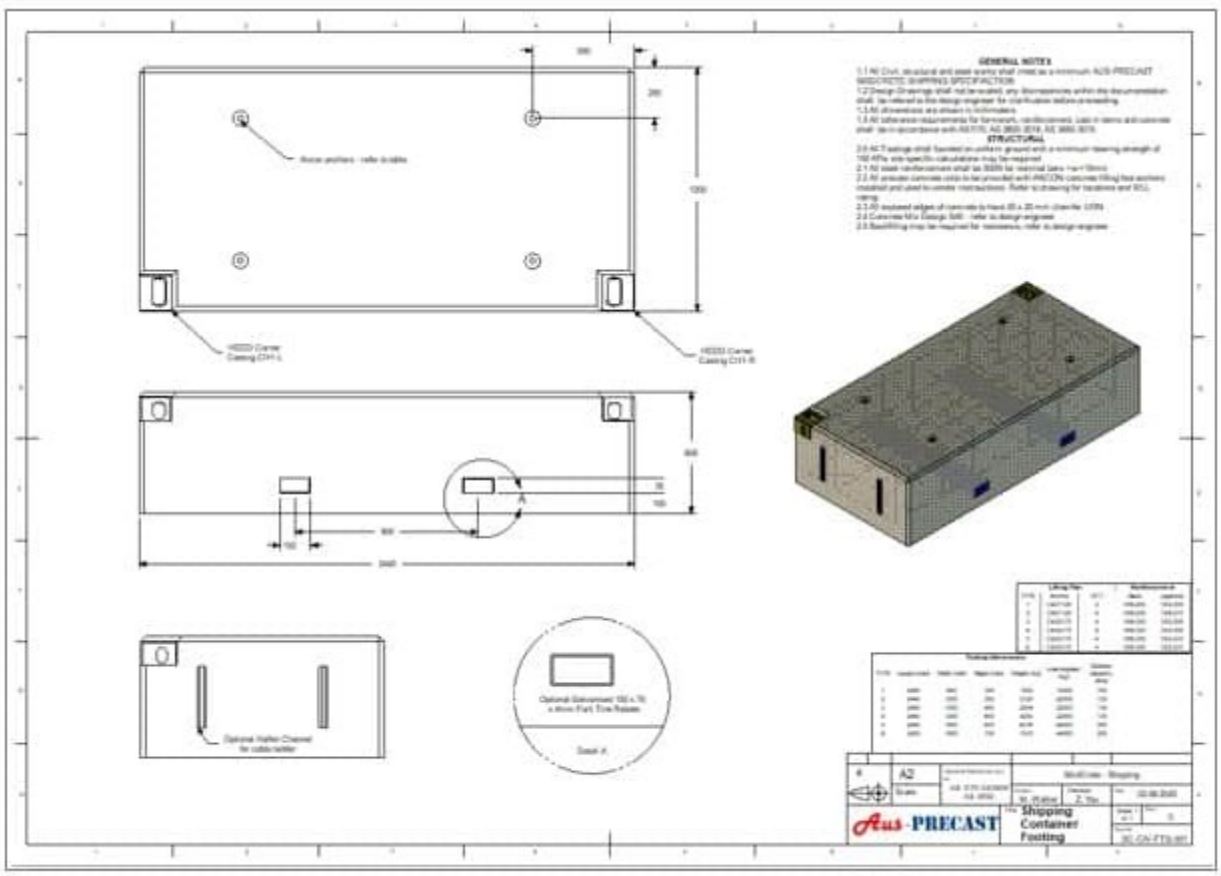
DESIGN AND DRAFTING SERVICES

We provide precise 2D and 3D modelling tailored for precast construction, ensuring every element is accurate, buildable, and compliant with industry standards.

3D MODELLING



2D MODELLING



Certified Engineering

WHAT WE OFFER CONSULTING SERVICES

Aus-Precast offers tailored consultation support to help you overcome project challenges and improve long-term performance:

PRECAST STRATEGY & PLANNING SUPPORT

Align your goals with practical design and construction solutions to ensure cost-efficiency and timeline certainty.

CHANGE MANAGEMENT & FACILITATION

We help manage transitions in design, process, or teams to reduce disruptions and support seamless project flow.

CONSTRUCTION PLANNING ADVICE

We assist with logistics, sequencing, and on-site strategy to reduce delays and mitigate risks.

FINANCIAL & STATISTICAL ANALYSIS

Receive data-driven insights to support budgeting, forecasting, and decision-making for your project.