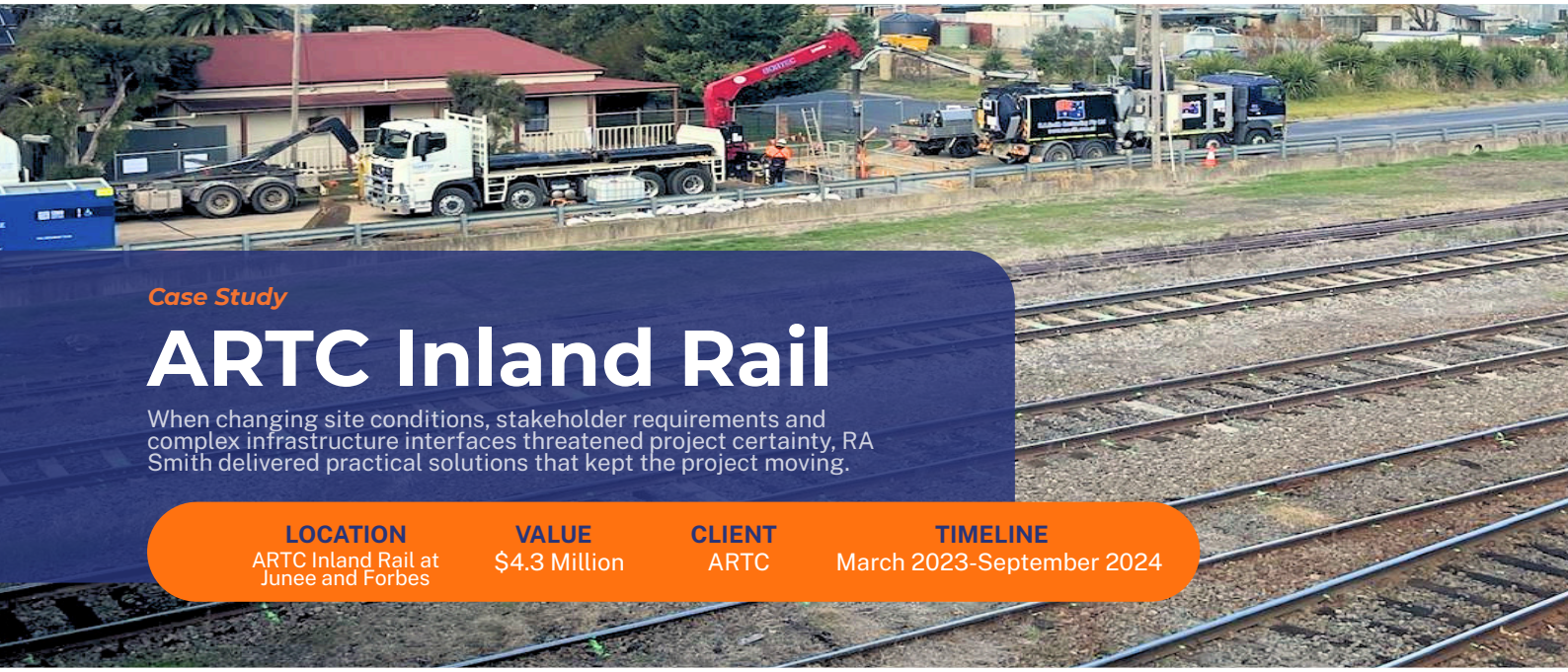


Case Study

ARTC Inland Rail

When changing site conditions, stakeholder requirements and complex infrastructure interfaces threatened project certainty, RA Smith delivered practical solutions that kept the project moving.

LOCATION	VALUE	CLIENT	TIMELINE
ARTC Inland Rail at Junee and Forbes	$4.3 Million	ARTC	March 2023-September 2024

Project Overview

RA Smith Contracting was engaged by ARTC Inland Rail as Principal Contractor to deliver critical water, sewer and gas relocations across Junee and Forbes, NSW, enabling the progression of major rail infrastructure upgrades.

The project required the relocation of essential utility services beneath active rail corridors and major transport routes while maintaining compliance with rail, utility authority and environmental requirements. Working across multiple sites, the team delivered complex utility infrastructure solutions that supported the delivery of one of Australia's largest rail infrastructure programmes.

The Challenge

Delivering utility relocations within a live rail environment presented a range of technical and operational challenges.

The project required the installation of water, sewer and gas infrastructure beneath active rail corridors and major transport routes, including crossings beneath Olympic Highway and operational rail assets. These works demanded careful planning, specialised construction methodologies and coordination with multiple stakeholders to maintain safety and minimise disruption.

During excavation works, significant groundwater ingress was encountered at several bore shaft locations. Combined with commencement delays and multiple design revisions throughout the project lifecycle, these conditions had the potential to impact productivity, construction sequencing and programme delivery.

Successfully delivering the project would require more than technical capability. It would demand flexibility, proactive problem solving and the ability to adapt construction methodologies as site conditions evolved.



The Solution

Drawing on extensive experience delivering utility infrastructure in constrained environments, RA Smith implemented practical solutions that enabled works to progress safely and efficiently.

To manage challenging groundwater conditions, the team developed a controlled dewatering strategy incorporating sediment treatment systems, continuous pumping operations and compliant disposal processes. This approach allowed critical boring activities to continue while maintaining environmental compliance and minimising impacts to construction progress.

RA Smith also worked closely with stakeholders and authorities to plan and deliver the Olympic Highway crossing, securing approvals and implementing traffic management measures that enabled works to be completed safely within a heavily trafficked transport corridor.

Throughout delivery, the team continuously reviewed construction methodologies and sequencing to accommodate design changes, groundwater conditions and stakeholder requirements. This adaptive approach ensured project momentum was maintained despite changing circumstances and site constraints.

Project Outcome

RA Smith successfully delivered the water, sewer and gas relocation works required to support the Inland Rail Project, enabling the progression of critical rail infrastructure upgrades.

Key Outcomes

1. Delivery of water, sewer and gas relocations across multiple project locations.
2. Successful installation of utility infrastructure beneath active rail corridors.
3. Completion of major utility crossings beneath Olympic Highway.
4. Effective management of significant groundwater ingress through tailored dewatering solutions.
5. Safe delivery of works within live rail and high-traffic operating environments.
6. Successful management of programme challenges, design revisions and changing site conditions.
7. Strong collaboration with project stakeholders, authorities and utility providers.

Beyond the successful delivery of the utility relocations, the project demonstrated RA Smith's ability to adapt to challenging site conditions, develop practical construction solutions and maintain project momentum within complex operating environments. Through proactive planning, stakeholder collaboration and technical expertise, the team delivered outcomes that supported both project objectives and critical infrastructure delivery.

Technical Scope

Water Infrastructure

- Installation of 88m DN375 MSCL water main within a DN600 steel casing beneath a live rail corridor.
- Construction of launch and receive shafts.
- Installation of 62m DN375 DICL water main across Olympic Highway.
- Installation of 110m DN150 DICL water main within the rail corridor.
- Grout filling and abandonment of existing water infrastructure.

Sewer Infrastructure

- Installation of 45m DN225 PVC sewer via microtunnelling.
- Construction of launch and receive shafts.
- Construction of maintenance structures and associated sewer connections.
- Open cut sewer installation works.

Gas Infrastructure

- Construction of launch and receive shafts for utility crossings.
- Completion of an 82m bore beneath the railway corridor.
- Installation of DN250 PE sleeve in accordance with authority requirements.



Why Clients Partner With RA Smith

Infrastructure projects rarely proceed exactly as planned.

The Inland Rail Project highlights RA Smith's ability to overcome unforeseen challenges, adapt to changing conditions and deliver practical solutions that keep projects moving forward.

From managing significant groundwater ingress and coordinating works beneath active rail corridors to navigating evolving project requirements and stakeholder interfaces, RA Smith consistently demonstrated the flexibility and problem-solving capability required to minimise risk and maintain programme certainty.

By combining technical expertise with a collaborative and solutions-focused approach, RA Smith provides clients with the confidence that even the most complex infrastructure challenges can be successfully delivered.