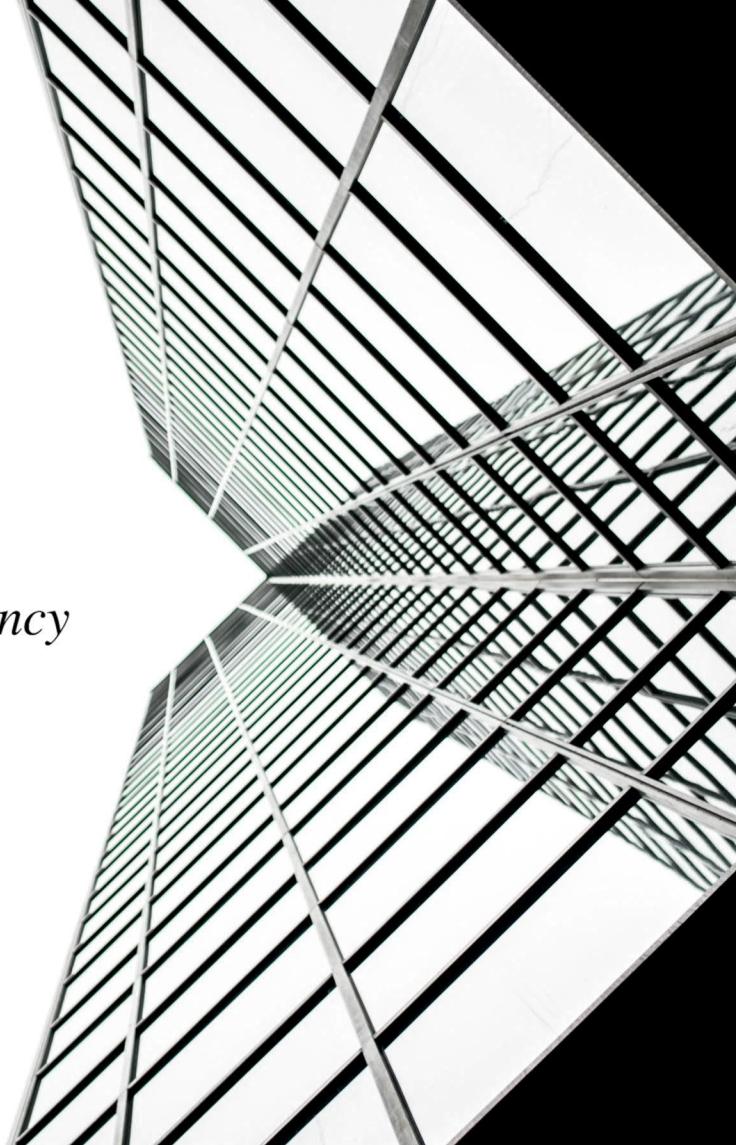


CAPABILITY STATEMENT

ROTHSHIRE

*Multi-disciplinary design consultancy
providing a light of knowledge in
pursuit of a better tomorrow.*



THE ROTHSHIRE DIFFERENCE

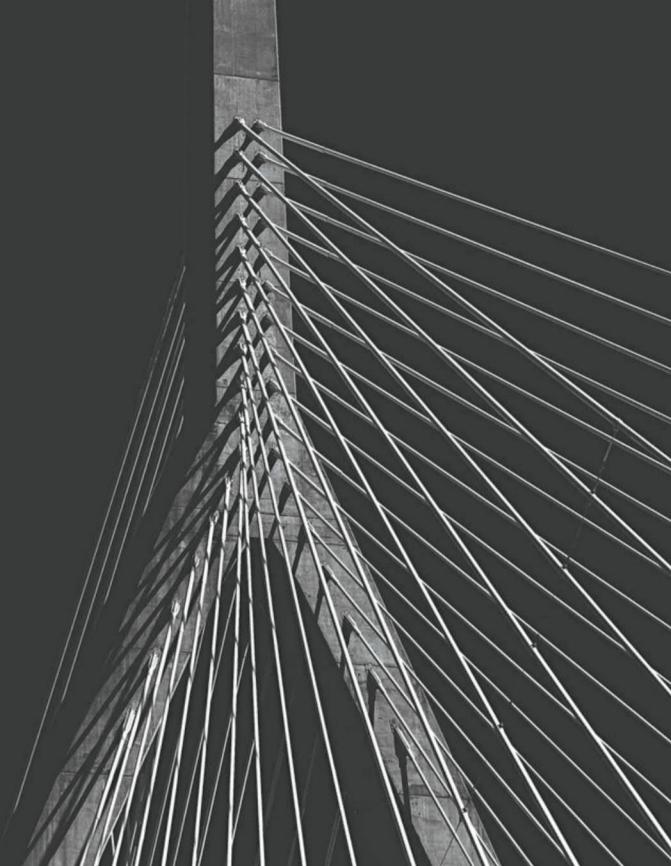
At Rothshire, our collaborative and open-minded approach to design puts our clients at the heart of everything we do.

Founded by a people passionate about providing multi-disciplinary services to clients, we have grown into a company that employs experts across a wide range of traditional and emerging fields.

The result is a client-focused team that prides itself on integrity in all our dealings and a constantly forward-thinking, innovative approach to all we do.

Our strength in problem-solving, providing results far exceeding expectations & never walking away from a challenge fosters a relentless approach to design; this philosophy runs throughout the whole business and is a core value of our company.

OUR SERVICES



STRUCTURAL ENGINEERING

Our structural engineers central focus is to provide a service second to none.



CIVIL & STORMWATER

Finding simple, effective solutions to the often complex challenges of our clients' civil and stormwater engineering needs.



FLOOD ENGINEERING

Extreme weather patterns causing catastrophic flood events has triggered the need for sustainable flood engineering solutions.



ENGINEERING & INVESTIGATIONS

Our engineers can assist you in the investigation of a wide range of structural and general building issues.



PLANNING & DEVELOPMENT

Rothshire's in-house capability offers a full service to save you time and money as well as achieving a high-quality result.



FACADE ENGINEERING

Our façade engineers take pride in bringing clients' visions to life in a way that ensures their buildings are durable as well as beautiful.



STRUCTURAL FIRE

Our engineers provide design for optimal fire resistance with state of the art design technologies.



INFRASTRUCTURE

Rothshire's team undertakes maintenance and design services to a range of critical infrastructure.



EXPERT WITNESS SERVICES

Our team prides itself on integrity and reliability and are well regarded by industry peers.



REMEDIAL ENGINEERING

We will ensure that any remedial works will be fully compliant with the current Building Code of Australia and any relevant Australian Standards.



STRUCTURAL ENGINEERING

Our structural engineers central focus is to provide a service second to none. Knowledge, combined with our expertise and experience is used to find outstanding solutions tailored to our clients' objectives.

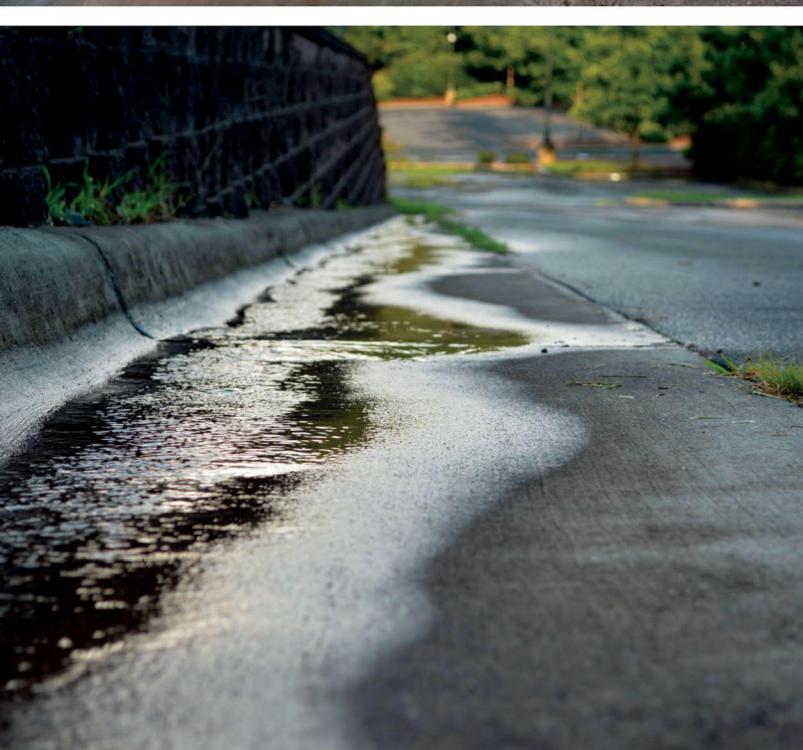
We pride ourselves in maintaining state of the art technology and engineering practices. We design limits and explore unique ideas to derive economical solutions.

Above all, our structural engineering team pride themselves on taking a proactive approach we aim for rigorous quality to ensure longevity and reliance of the structural life cycle.

A Few Of Our Structural Engineering Services:

- Foundation design
- Deep basement retention, excavation and piling
- Concrete design
- Post-tension design
- Masonry structures
- Structural steel design
- Carbon fibre design
- Composite structures
- Timber design





CIVIL & STORMWATER

Finding simple, effective solutions to the often complex challenges of our clients' civil and stormwater engineering needs.

When it comes to urban redevelopment, subdivisions, parks and other open spaces, flood management, roads, urban design and water infrastructure, we work with you every step of the way to design the outcome that best suits your project and the environment.

Civil Engineering:

- Subdivisions
- Public domain
- Utilities
- Roads, intersections and car parking designs
- Bulk earthworks
- Earthworks and cut and fill analysis
- Soil and water management plans
- Erosion and sediment control plans

Stormwater Engineering Services:

- Stormwater systems
- Subsoil drainage & on-site detention
- Water Sensitive Urban Design (wsUD)
- Overland flow design



FLOOD ENGINEERING

Extreme weather patterns causing catastrophic flood events has triggered the need for sustainable flood engineering solutions.

Flood Engineering Services:

- ✓ Buoyancy of structures
- ✓ Hydrodynamic impact on structures
- ✓ Scour assessment
- ✓ Flood debris & impact on structures
- ✓ Flood modelling (1D and 2D)
- ✓ Open and closed channels, culverts and bridges, hydraulic studies
- ✓ Flood risk management reporting





FACADE ENGINEERING

Our façade engineers take pride in bringing clients' visions to life in a way that ensures their buildings are durable as well as beautiful. Façade engineering is the careful science of building performance, weatherproofing, amenity, strength, durability and sustainability of a building skin whilst preserving architectural distinction.

Our engineers are emerging experts in the field of façade engineering; the team is comprised of experience from remediation & building defects, structural engineering, architecture and building experts.

Since the introduction of the Design and Building Practitioners (D&BP) Act 2020 (NSW), Rothshire have been leaders in providing frontier façade engineering on class 2 buildings.

The Rothshire difference in façade engineering is set through the coordination of disciplines, constructability challenges and product selection.

End to end solutions include CFD analysis, critical stage inspection, façade diagnostic, façade testing.

Rothshire has undertaken faced design on over \$2 billion of construction projects since the commencement of the D&BP Act.



Façade Engineering Services:

- Site wind analysis
- Water and weatherproofing design/detail check
- Cladding & fixing design
- Steel, aluminium and timber façade design
- Masonry and stone design
- Glass design
- Curtain wall design
- Frameless glass design
- Computational Fluid Dynamic (CFD) modelling
- Thermal performance design checks
- Tensile structures
- Forensic engineering
- Remedial engineering design
- Material selection and procurement
- Blast resistant structures



STRUCTURAL FIRE

Given recent catastrophic event, active structural fire engineering has become an emerging and important field. Our engineers provide design for optimal fire resistance with state of the art design technologies. Their skillset combines traditional structural engineering with the unique knowledge of fire engineering, resulting in designs that are safe, efficient, and easy to maintain within keeping of the original aesthetic vision.

We can provide design solutions that incorporate modelling of complex fire behaviour and its impact on the structure without compromising architectural merit.



STRUCTURAL FIRE SERVICES

- Structural fire modelling
- Rigorous analysis
- Progressive collapse analysis
- Emergency assessments
- Post blast analysis



INFRASTRUCTURE ENGINEERING

Rothshire's team undertakes maintenance and design services to a range of critical infrastructure including Sydney Harbour Tunnel, Eastern Distributor, Cross City Tunnel, Lane Cove Tunnel, M2 and M5, bridges, tunnels, buildings and other civil structures.

Our engineering emergency response team provides 24-hour / 7-day-a-week support for assets, including response to incidents, natural disasters and other critical events.

Our asset management and engineering services centre around effective risk management, and we focus on practical recommendations for maintaining asset operations.

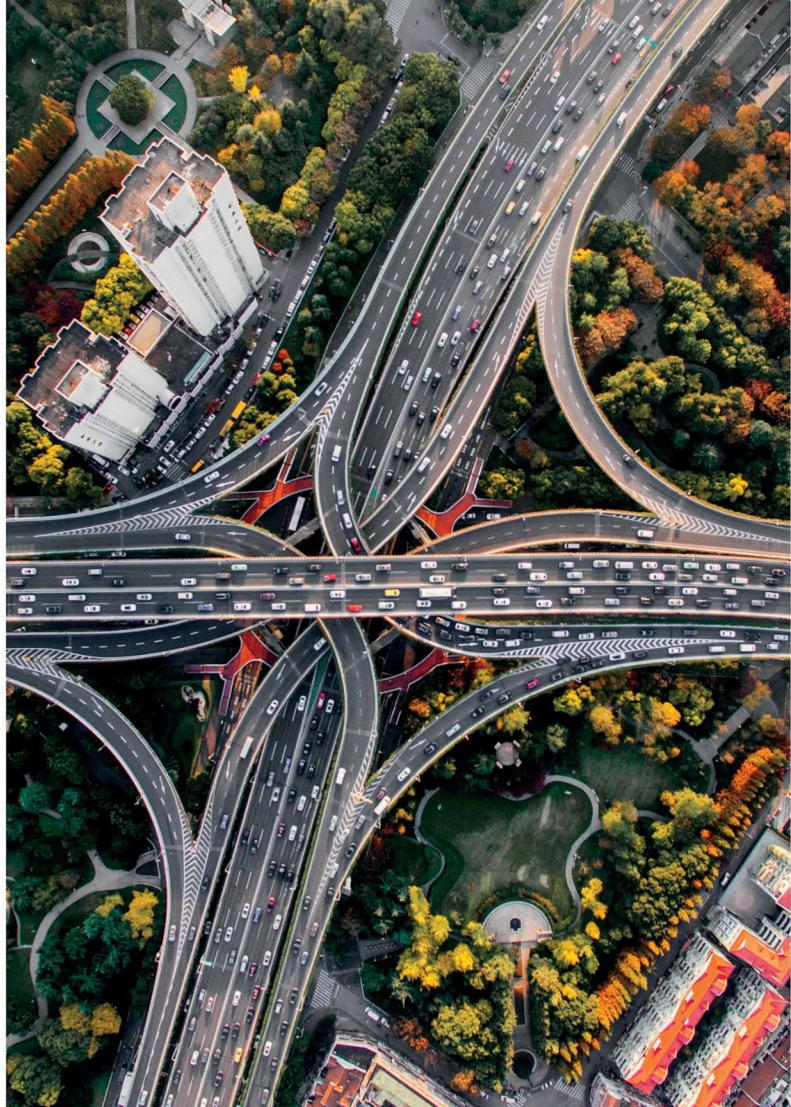
We also believe it is important to include sustainability considerations in our solutions and recommendations, which typically focus on material selection, material quantities and maintenance methodologies.

EXPERT WITNESS SERVICES

Our experts, with their wealth of knowledge and experience across a wide range of disciplines, investigate, report and provide expert testimony in court for owners, facility managers, infrastructure asset managers, strata companies, councils and others.

Our civil, structural, façade and hydraulic engineers, as well as Architects, town planners and building consultants, draw on their expertise and court experience to provide an impartial and professional opinion.

Our team prides itself on integrity and reliability and are well regarded by industry peers.





FORENSIC ENGINEERING & INVESTIGATIONS

As the severity and/or presence of many building issues may not be easily apparent, undertaking a forensic analysis is often required to ensure the full quantum of the problem is understood. Drawing upon comprehensive knowledge in the structural, construction and remedial sectors, our engineers can assist you in the investigation of a wide range of structural and general building issues.

With our state-of-the-art testing and diagnostic tools and equipment we are able to finalise our investigations efficiently and reliably.

With our in-house expertise across a number of disciplines, we are well-equipped to provide a tailored remediation design to complement the investigative results, alongside any required temporary works and future monitoring. We will also ensure that you are kept abreast of any development throughout the process, and will provide the results/outcome in a clear to read and understand manner.



PLANNING & DEVELOPMENT

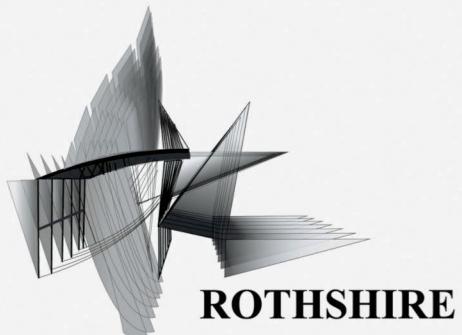
Our multidisciplinary consultancy is skilled in the preparation and management of development applications & modifications and building information certificate applications with local councils as well as managing complying development, construction certificate and occupations certificate applications with certifiers and councils.

REMEDIAL ENGINEERING

Dealing with remedial building issues can be a daunting process, as it's not uncommon to not know where to start and what remedial works are required. With extensive knowledge of the construction and composition of new and existing buildings, our remedial team will be able to assist with any remedial building issues you may face.

We will break down and simplify the process into easy-to-manage and understand parts and will make sure you're completely informed at each step of the way. We will ensure that any remedial works will be fully compliant with the current Building Code of Australia and any relevant Australian Standards. We are also able to submit and declare any regulated designs as required under the Design and Building Practitioners Act.



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