

# CAPABILITY STATEMENT



# Why Piletech International?

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Piletech International delivers innovative, cost effective solutions in the engineering, foundation, civil and marine construction industry. Our extensive design experience and diverse product range enable us to offer bespoke and flexible solutions that meet even the most challenging project briefs. We view all our projects as partnerships which is why we provide higher quality, faster and cost effective solutions to our clients.

## What sets us apart?

- Innovative solutions that utilise superior design and technical expertise
- Capability to effectively service all client types; from independent contractors to multinational companies and government departments
- End to end quality assurance, giving you peace of mind that all project phases are completed precisely to specification in a safe and secure manner
- Exceptional project management and logistical planning, leading to projects delivered on time
- Strong risk management focus, ensuring that all projects efficiently minimise potential risks to budget and schedule increases
- An ethos of partnership and excellence, with each project phase receiving dedicated support from experienced professionals
- Flexibility to tailor solutions to your project's unique needs, saving you both time and money
- State of the art screw pile manufacturing capability
- Ability to rapidly respond to clients on tight deadlines
- Superior documentation and records management
- Faster installation times on site



## Who Are We?

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Piletech International is your total solutions company for piling, foundation systems, civil works, marine and structural steel manufacturing. We have delivered excellence through innovative, tailored, cost effective solutions across multiple sectors including residential, commercial, rail, mining and civil infrastructure construction with staff experience expanding beyond 35 years in the Australian piling industry.

We are one of only a few Australian companies capable of providing end to end foundation solutions, catering to projects of all sizes and scope. Because we design, manufacture, install and certify locally, our clients have peace of mind regarding both the quality of the product and continuity of care from dedicated local experts throughout each step of the project. Quality is also assured through our robust documentation processes that enable us to trace each pile back to point of origin.

We take pride in our ability to create meaningful partnerships with our clients to find workable solutions which result in a higher quality, more time efficient, cost effective and safer finish.

Our unique capabilities have allowed us to complete projects ahead of both time and budget due to detailed geotechnical considerations of each site, tailored innovative foundation solutions and strong relationship management for each project.



# Product Capabilities

**Design and Construct Packages**

**Sheet Piling**

**Screw Piling**

**Bored Piles**

**Soldier Pile and Retention Systems**

**Driven Steel and Timber Piles**

**Marine Sea Walls and Revetment Walls**

**Anchoring Systems**

**Underpinning**

**Board and Beam**

**Civil Construction**

**Vacuum Excavation**

Piletech International offers a diverse product portfolio that allows it to create some of the most innovative and holistic solutions in the industry. We pride ourselves on being at the forefront of research and development into piling and anchoring technology and ensure the most professional and current solutions are deployed in our projects. Furthermore, we follow strict company quality guidelines that comply with all relevant standards and codes, including AS1554.1 Welding, AS2159 Piling and AS4100 Steel Structures.

## Earth Retention Solutions

We can design, manufacture and complete earth retention solutions for a wide variety of projects including basement walls, bridge abutments, seawalls, embankments, land subsidence and slope stability. Our range of capabilities mean we can use a combination of sheet piling, soldier piling, concrete piling, screw anchoring and soil nailing to create a customised solution that best suits your project.

## Piling Systems

Unlike many of our competitors who specialise in one or two piling types, we use a wide range of piling systems to create the most appropriate solution based on the needs of our client and their specific project. This could include screw piling, sheet piling, driven steel, timber piles, bored piles or a combination of systems. We take into account environmental effects, fuel-efficiency of different piling solutions, geotechnical considerations of the project site, as well as the permanency of the required structure to offer the best piling foundation for your project. All of our piling systems are manufactured and installed under strict company quality guidelines that comply with all relevant Australian standards and codes.

## Underpinning Systems

Underpinning is traditionally used to support structures that have either failed or subsided to a point where structural rectification is required. We use a variety of techniques to underpin structures including the conventional bored pier with head stock, screw piles and chemical grouting. Underpinning can be used on a range of structures and we specialise in rectification of residential, commercial and industrial foundations as well as more diverse underpinning including canal revetment and difficult to access sites.

## Manufacturing Solutions

Our local manufacturing capabilities allow us to quickly supply innovative, customised products to help make your project a success.

## Vacuum Excavation

As underground services and obstructions can be encountered on every site, we have our own vacuum excavation equipment that can quickly be deployed to pre-empt the risk of hitting services or minimise risk of delays caused by having to remove obstructions.

## Load Testing

Piletech International has the capability to provide load testing for an array of foundation designs that conform with all codes and standards. In particular, our solar farm load testing methods allow for quick mobilisation, installation and testing of a large quantity of piles anywhere in the country.

# Company Capabilities

## Talented Workforce

At Piletech International we are proud to employ some of the industry's most talented designers, engineers and construction personnel. Our experienced employees have the expertise and knowledge to provide an innovative, customised package to meet all of your foundation and retention needs. Our team is committed to providing customer excellence through a professional and reliable service, that allows us to partner with our clients on every aspect of the job. We will ensure you receive the highest quality products and services by treating each and every job with the utmost care and dedication.

### CASE STUDY



**Client:** Redland City Council

**Project:** Revetment Wall Upgrades - Multiple Projects

- Piletech International's technical and innovative thinking was employed to tackle ongoing issues of subsidence at Raby Bay.
- With over 20km of man-made canal slopes suffering from settlement and lateral displacement, we were engaged to carry out revetment wall remedial work, which principally involved repairing, propping up / underpinning or entirely replacing walls across the bay precinct.
- The technical difficulty of these projects was augmented by the unique characteristics of the sites, with all work being undertaken from a pinned down floating barge and occurring in a tidal environment. Our expert design team were able to offer the client a workable solution to their problem which has been successfully implemented through detailed planning, meticulous regulatory compliance and precise construction methods within tight budget and time constraints.

## Diverse Product Portfolio

We have one of the most diverse and unique product and service ranges in the Australian market, allowing us to create a bespoke solution for every client's needs. We can cater for small residential buildings right up to complex commercial projects with our large variety of products including screw, concrete and soldier piling, as well as underpinning, anchoring and soil nailing systems. We also manufacture and supply our own range of innovative and customised products.

### CASE STUDY



**Client:** BMD Urban

**Project:** Yatala Industrial Park Rock Wall

- We were engaged by BMD Urban to design and construct a piling and retention solution for an embankment in Yatala, Queensland. This was a technically difficult project due to the limited geotechnical data available, the inconsistency of the fill material of the embankment and project scope which was initially designed as sheetpiles.
- There were a number of challenges to overcome: the ground condition causing typical sheet piling to be too difficult and costly as all sheets would require predrilling to enable penetration; some ground water seepage was observed; embankment profile ranging from clay and gravelly fill to natural rock; shared site access constraints and a narrow work front between the embankment and road.
- With our design expertise and diverse product range we were able to offer a multi-product solution that met the client's requirements. To meet the challenge our retention system comprised of shotcrete with screw pile anchors including drainage with a foundation system below the embankment of screw piles and bored piers.
- The project was completed on time and well under the original sheetpile budget, with BMD Urban commending us for our flexibility and well-constructed piles within a suitable timeframe.

## CASE STUDY



**Client:** UNITY Alliance (Cross River Rail), Hutchinson Builders, John Holland Group

**Project:** Station Accessibility Upgrades - Multiple Projects

- Piletech International were engaged by Unity Alliance, Hutchinson Builders and John Holland over three tranches across numerous stations which included Strathpine, Auchenflower, East Ipswich, Cannon Hill, Yeronga, Fairfield, Southbank and others to design and construct various foundation systems including screw piles, bored piers and temporary shoring walls. These projects provided unique, logistically difficult challenges which needed to be overcome, which included working under both live rail and shutdown conditions with an emphasis on time constraints and safe delivery. On each project Piletech was able to deliver on its design in a way that satisfied the various stakeholders involved.
- Given the uniqueness of the projects we worked closely with the different clients to agree on the most effective implementation process and maintained transparent communication throughout the projects to quickly and effectively adapt to changing conditions.
- Our technical expertise enabled us to deliver a solution that overcame the site specific problems and with a strong risk management ethos we were able to mitigate a number of risks in relation to the construction.

## Innovation

At Piletech International we understand the importance of maintaining innovative and ground-breaking solutions to meet and exceed our clients' needs. We constantly strive to ensure our team of experts think outside the box when it comes to difficult or complex jobs for our clients. With our local expertise and knowledge, our staff use their innovation and creativity to find the best hidden solution to any foundation challenge.

## CASE STUDY



**Client:** SMEC

**Project:** Solar Pile Load Testing - Australia wide

- We were engaged by SMEC to undertake the supply, installation, load testing and removal of thousands of piles across various projects throughout Australia to provide efficient and accurate results that allow our Client to finalise the geotechnical design of large scale solar farms.
- Our purpose-built testing equipment enabled a short turn around for mobilisation and testing as far as the South Australian Coast. With accurate same day reporting on test results, SMEC were ensured minimal downtime for their design phase.
- Our highly experienced testing crew has delivered results for solar farms in Queensland, New South Wales, Victoria & South Australia, ranging from solar farms that require less than 30 load tests to solar farms that required over 200 load tests.

## Superior Client Relationship Management

To ensure quality and peace of mind with our clients, we view ourselves as partners on a job. This approach allows for a collaborative, meaningful working relationship with our clients no matter the size of the project. We take the time to investigate and research each project and tailor our solutions to suit. Each project we undertake is a customised package, designed by one of our local in house engineers and executed by our highly skilled construction team, all while keeping an open dialogue with our clients to ensure they are completely satisfied with the result. We have many repeat clients who come to us for our superior customer service, as well as our commitment to completing our clients' projects to the highest quality.

## CASE STUDY



**Client:** SMEC, UGL, UNITY Alliance, John Holland Group, Hutchinson Builders, PCL Constructors

**Project:** Screw Pile Load Testing - Various Projects

- Piletech International are generally engaged to undertake the load testing of screw piles for numerous jobs on rail sites, commercial building foundation piles, bridge piles & solar farm piles across various locations around Australia.
- We are one of only a few who offer this unique service in the market. Our expertise in load testing combined with our engineered, custom built load testing equipment provides accurate results for our clients in a safe manner.
- Our technical expertise enables us to deliver accurate deflection results of piles in compression, in tension and laterally for our clients which proof design requirements.

## Our Fleet

We understand the importance of having reliable machinery ready for any job, which is why Piletech International owns a modern fleet of Excavators ranging from 4-35t, a Tescar CF6 Drill Rig, a medium sized tipper truck, work utes and other machinery. Not having a reliance on subcontractors and hire companies is one of the reasons why we are able to provide such cost effective, timely solutions to our clients. Our fleet is maintained through internal and external maintenance processes which ensure they are running efficiently at each and every job; reducing fuel costs and our carbon footprint in the process.

## CASE STUDY



**Client:** Hutchinson Builders

**Project:** The Verge Stage 1 & Stage 2

- Piletech were contacted during design stage by a Client who were looking for design alternatives for piles with relatively high tension loads. Due to the high water table bored piles were not an option so Piletech provided a screw pile alternative and with a collaborative approach were able to modify footing designs to reduce the tension loads required to make screw piles suitable.
- Static ultimate load testing was undertaken to prove the screw pile capacity and subsequently screw piles were installed as a time & cost effective option over CFA or cased bored piles.

## Tooling & Equipment

Piletech International has an extensive range of bespoke tooling & equipment, designed and engineered in house to meet the specific needs of the harsh environments they are used in. All equipment and tooling has been engineered to the highest quality to ensure safety and compliance with codes and standards. As a company, we are always innovating and updating our processes, and we ensure our equipment and tooling is updated in line with that.



## Why Choose Us?

Piletech International is uniquely positioned to provide holistic foundation solutions, from initial geotechnical review of project sites through to design, engineering, manufacturing and installation of customised foundation products.

When you choose to partner with us, you choose a construction and foundations company that can complete the job independently from start to finish, rather than subcontracting multiple aspects of the project.

We strive to provide customer excellence through innovative engineering, foundation and construction solutions that meet the highest safety standards in a timely, competitive and professional manner.

Our engineering capabilities and the depth of our research and design continue to exceed our clients' expectations. Our team has the expertise and knowledge to create superior designs and engineering solutions to meet all your anchoring, soil nailing, piling and foundation needs.

Call us today to explore our high-quality, cost-effective, bespoke products and services, which when combined with our professional workmanship, ensure you receive the best solution for your project.