CAPABILITY STATEMENT

Structural, Civil, Geotechnical, Materials Engineers, Mechanical & Asset Reliability Engineering







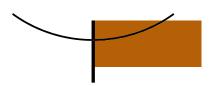
A Positive Fix Pty Ltd

incorporating

Peter Turner & Associates



WE ARE COMMITTED TO PROVIDING THE BEST ENGINEERING SERVICES TO OUR CUSTOMERS





STRUCTURAL ENGINEERING

engineering projects.

Peter Turner & Associates utilizes extensive experience and engineering needs.

This includes:

- Design of steel structures, including buildings, roof structures, tensioned fabric support frames, reinforced concrete structures for residen- This includes: tial, commercial and industrial buildings.
- The design of piled foundations and associated structural members.
- Forensic investigations of structural faults and preparation of reports for remedial works for pre-purchase • assurance, for legal proceedings and assessments. for upgrading existing structures.
- Site inspections for construction and sea walls. work in progress and structural certification.
- Structural/mechanical inspection of amusement rides for Workcover license for selected clients.
- Structural inspection and certification of formwork scaffolding on large building projects for selected clients.

CIVIL ENGINEERING

Peter Turner & Associates works with Peter Turner & Associates works with clients to deliver successful structural commercial and industrial development clients to deliver successful civil infrastructure projects.

local Through the use of computer aided knowledge to ensure that the clients design programs, Peter Turner & Assoachieve the most suitable and eco- ciates maintain an extensive database nomical solutions for their structural of new products and construction technology to ensure that our offered solutions are up-to-date.

> We can handle your project from its preliminary design phase through to completion.

- Road design and road reconstruction design.
- Stormwater drainage and on-site detention basin design.
- Bulk earthworks design.
- Preliminary engineering feasibility
- Design of retaining revetments
- Design of road pavements.
- Design of maritime structures.



Positive Fix Pty Ltd

incorporating

Peter Turner & Associates

Civil Engineering Geotechnical Engineering Structural Engineering **Materials Engineering Asset Reliability Engineering**

About Positive Fix Pty Ltd

Positive Fix Pty Ltd incorporating Peter Turner & Associates have been in business as Consulting

Engineers with offices in Toronto since 1983. We have provided engineering services for over 27 years in the Newcastle and Hunter Region.

We have an in depth knowledge of Civil, Structural and Geotechnical engineering requirements in this area which we offer to our clients to the benefit of their projects.

CONTACT DETAILS

33-35 The Boulevard, Toronto NSW PO Box 346, Toronto NSW 2283 Ph: 02 4959 6699 Fax: 02 4959 8802 Web-Site: www.p-m.com.au E-mail: info@p-m.com.au

ABN: 81140759931





Positive Fix Pty Ltd

incorporating Peter Turner & Associates

Civil Engineering

Geotechnical Engineering

Structural Engineering

Materials Engineering

Asset Reliability Engineering

GEOTECHNICAL ENGINEERING

Peter Turner & Associates works with clients from commercial building projects through to residential projects.

This includes:

- Commercial and residential development site investigations varying from single sites to subdivisions.
- Residential & commercial foundation investigation & recommendations.
- Site Classification and VENM classification.
- Slope Stability Investigation
- Road Pavement investigations and design.
- Earthwork specifications and quality control.

MATERIALS ENGINEERING

The business is now focussing on the durability of materials to increase the life span of the clients infrastructure .

FEM analysis is carried out to identify potential problems with materials in corrosive environments. This works in conjunction with our asset management team.

This includes:

- Durability planning.
- Reinforced concrete aging modelling for maintenance and new structures.

Aggressive agents, e.g CO2, CI-, begin to penetrate

De-passivation occurs. Corrosion begins

Corrosion begins

Corrosion begins

Corrosion begins

Corrosion begins

Corrosion products build. Spalling occurs

ASSET RELIABILITY ENGINEERING: Mining, Manufacturing & Process Industries

Business now embraces Asset Reliability as a key discipline to optimize the performance of assets and unlock capability. Peter Turner & Associates recognizes this important link to business performance. Our approach ensures focus on delivering business outcomes.

Peter Turner & Associates can assist business to improve their throughput and asset reliability through structured programs of identifying maintenance improvement opportunities and actions to deliver them.

This includes:

- Maintenance Strategy Development & Review (RCM, PMO &FMEA).
- Risk Based Maintenance Management Assessments & Audits.
- Business Process Management.
- Root Cause Failure Analysis (RCFA).
- Life Cycle Cost Management.
- Maintenance Performance Management (KPI's)
- Lean Manufacturing including 5S.
- Spares Optimisation.
- Warranty Management.
- CMMS Support & Records Management.
- Professional Reliability Engineers for on-site support.
- Asset Management Training.

KEY PROJECT EXPERIENCE

ASSET RELIABILITY ENGINEERING

- Design & documentation for construction.
- Senior Fleet Reliability Engineer for Boeing 747 Fleet for Qantas Airways. Setup reliability reporting systems for aircraft defect reporting in accordance with CASA requirements.
- Heavy maintenance frequency escalation from 7 years to 9 years for B747 fleet.
- Senior Reliability Engineer for Rio Tinto Coal Australia's Hunter Valley Coal Mine—responsible for setting up Reliability Department in accordance with PAS 55 to ensure that all production losses were investigated and appropriate actions were taken, where required.
- Facilitate Failure Mode and Effects Analysis (FMEA) for high voltage transformers for electrical shovels and drag- uprate and load out facility at Kooragang Island. lines.
- mise "up-time".
- Develop Maintenance Strategies for Electrical Haul Trucks using Reliability Centred Maintenance (RCM) Meth- vanising plant for industrial galvanising at Hexham. odology.
- Developed Asset Management Strategies within Hunter Canberra, in continuous prestressed concrete and steel. Valley Mining Operations.
- Dragline maintenance optimisation.
- Dragline Shutdown support and management.
- support to GEMCO.
- and mobile plant.
- Review and development of maintenance strategies for rail wagons, fixed and mobile plant.
- Implement computerised maintenance management systems (engineering module only).

CIVIL AND STRUCTURAL ENGINEERING

- cal production facilities for KPM Con. (Wyong).
- Workshop extension and rail track extensions.
- Design of conveyor gantries and support trestles and foundations for ROM conveyor (Muswellbrook).
- Design of pipe bridges and other structures for relocation of fuel oil pipeline from tank farm to power station.
- Biannual inspections of haul road bridges. Preparation of standard bridge report format and submission of biannual condition reports.
- Project manager for construction of road and bridges.



Positive Fix Pty Ltd

incorporating

Peter Turner & Associates

Civil Engineering Geotechnical Engineering Structural Engineering **Materials Engineering Asset Reliability Engineering**

- Project manager for consolidated fertilisers bulk bin
- Acting Construction Superintendent for Mine Develop-Review of Maintenance Strategy for Haul trucks to opti- ment Branch of Electricity Commission during Myuna Colliery Construction.
 - Project Manager for new factory building and new gal-
 - Bridges design for N.C.D.C. in Belconnen town centre,
 - Campbelltown bridge—of continuous eight span prestressed concrete twin viaduct for Planning and Environment commission of NSW.
- 10 berth tug boat marina in Morts Bay—Sydney Har-Provide reliability engineering and project management bour for joint use by Fenwicks and Waratah Toage.
- Seconded to Brambles Industries (Marine Division) as Setup defect elimination process for rolling stock, fixed Contracts Advisor during feasibility study for proposed large tugs for Hay Point service—Queensland.
 - Project engineer for initial stages of viaduct design for Northern Freeway (Queensland).
 - Engineer on construction of South Western Freeway around Campbelltown.
- Resident engineer during construction of length of free-Design & documentation for construction of new chemi- way in the Midland Links Motorways on the outskirts of Birmingham. Steel bridges, reinforced concrete bridges and prestressed concrete bridges (U.K.).