

pitt&sherry

Specialist Knowledge.
Practical Solutions.

Airport & Aviation
Brochure



pitt&sherry provides
a comprehensive
range of specialist
services covering all
aspects of airport
and aviation
facilities.

Airport & Aviation

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pitt&sherry's airport and aviation specialists have the know-how to successfully deliver your most important projects.

Experience and Company Overview

pitt&sherry is a leading Australian professional services company, currently employing over 260 people across our offices in Victoria, Tasmania, New South Wales and Queensland.

We deliver projects of all sizes and risk profiles to industry and government throughout Australia and Internationally, and employ a range of engineers, scientists, planners, building surveyors, technicians, project managers and other professionals.

We focus on providing consistent, high quality services and building collaborative, long-term relationships with satisfied clients. Our partnerships are based on trust, integrity and accountability, and our diversified skillset enables us to develop smart, cost-effective, technical solutions, and be nimble and adaptive in solving all types of problems.

What we do

Our broad range of products and services enables us to support clients in advisory and delivery through the full life project cycle, from initial identification through to design development and operation and management, to decommissioning and site rehabilitation.

Our clients benefit from our agility, continuing focus on skills and knowledge, and the depth of expertise across a range of specialisations including:



| | TRANSPORT | INDUSTRIAL & MANUFACTURING | MINING | ENERGY | TOURISM & RECREATION |
|--------------------------------------|-----------|----------------------------|--------|--------|----------------------|
| ASSET MANAGEMENT | → | | → | → | → |
| ROADS, RAIL, SEAPORTS, AIRPORTS | → | | → | | |
| BRIDGES & CIVIL STRUCTURES | → | | → | | |
| HYDRAULICS & HYDROLOGY | → | → | → | → | |
| MINING & GEOTECHNICAL | → | → | → | → | |
| MECHANICAL & ELECTRICAL | → | → | → | → | → |
| STRUCTURAL | → | | → | | |
| PLANNING & ENVIRONMENT | → | → | → | → | → |
| PROJECT MANAGEMENT & SUPERINTENDENCY | → | | | | |
| TECHNICAL ADVISOR & RISK | → | → | | | |

How we can help you

The range and depth of our technical skills and experience complement our Airports team, and enable us to provide valuable independent services and advice to the Department of Defence as we are truly independent of existing panel members.

From our diversity of skills, the below specialisations may be of specific interest to the Department of Defence, with further detail on these capabilities and personnel provided in this brochure.

- Geotechnical
- Environmental and Planning
- Civil and Structural
- Mechanical and Electrical
- Asset Management
- Building Surveying.

pitt&sherry also have a proven track record in providing project management and advisory services to the Aviation and Defence industries.

Our experienced personnel bring a wealth of knowledge, the technical expertise of their discipline and an understanding of the specific challenges that the defence and airport sectors present.

Whatever the size of the project, we will draw on our expertise while working collaboratively with you to understand project challenges and objectives, and provide tailored solutions to meet each projects' unique requirements.

Geotechnical

pitt&sherry helps clients to holistically understand and mitigate project ground risk. Our Geotechnical team can plan, manage, analyse and report on geotechnical investigations and independently review geotechnical investigations by others. We also undertake geotechnical design, incorporating environmental assessment, to enhance early design and construction decisions.

Our specific offerings include:

Project planning

We employ a fully digital workflow using industry standard GIS systems and desktop data to optimise geotechnical investigations and provide targeted relevant information quickly and efficiently. We draw on more than 50 years of operations, as well as publicly available data sources, to develop ground hypotheses that are robustly tested by field investigation.

Investigation

pitt&sherry is experienced in the full spectrum of geotechnical investigations across all markets and project scales. Our investigation services include:



- Field supervision and logging of borehole drilling and test pitting
- Instrumentation and monitoring
- Geological and geomorphological mapping
- Seismic refraction surveys and interpretation
- Permeability and groundwater assessment.

Assessment

Our geotechnical engineering professionals provide clear and concise analysis of field investigation data. We provide risk-based assessment, interpretation and reporting for:

- Foundation investigations for structures
- Stability of natural, excavated or constructed slopes.

Analysis and design

pitt&sherry undertake analysis of field investigation data, either collected by us or supplied by the client, and develop clear and concise geotechnical interpretations. Our results are tailored to the project requirements and employ cutting edge digital data visualisation to enable quick and instinctive access to the results.

pitt&sherry designs ground stabilisation, support systems, underground and above-ground excavations, foundations and geotechnical structures for all markets and projects.

Construction phase support

By engaging with clients throughout the project life cycle, pitt&sherry is uniquely positioned to provide construction-phase support and effective implementation of geotechnical plans.



Environmental & Planning

pitt&sherry's Environment and Planning team includes expert personnel with a comprehensive range of environmental and planning experience. The team works within Commonwealth and State jurisdictions across both project and operational lifecycles to deliver a wide range of solution-focussed services including environmental impact assessment and approvals, construction and operational management plans, auditing and compliance and contaminated land management

The variety of disciplines we can draw on internally enables us to offer clients services specific to environmental and site constraints they face. This includes contaminated land management (including investigation, mapping, identification, and management of PFAS (Per- and Poly-Fluoroalkyl Substances)), independent review of investigations, rehabilitation and management plans, and Stakeholder and Community engagement.

Our specific offerings include:

- Contaminated land
- PFAS investigation and remediation
- Contaminated site assessments
- Underground petroleum storage tank assessment
- Soil and groundwater monitoring
- Due diligence and redevelopment assessments
- Soil and groundwater remediation
- Contaminated waste management
- Contaminant fate and transport modelling.

Planning

- Determining the approvals pathway and associated environmental studies required
- Undertaking fatal flaw and due diligence analysis for use in optioneering
- Ensuring compliance with consent conditions
- Identifying legislative planning exemptions to expedite project approvals
- Developing and implementing Community, Stakeholder and Communications Engagement Plans.

Stakeholder and Community Engagement

- Social research
- Information and education programs
- Community engagement (adjacent landholders, sensitive receivers, and broader community)
- Stakeholder engagement including cross jurisdictional negotiations
- Facilitation of community sessions
- Master and strategic planning.

Environmental approvals

- Preparation of Local, State and Commonwealth Government approvals
- Referrals and assessments required for proposed activities under the Federal Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)
- Regulator liaison and stakeholder engagement.
- Third party approvals including water licenses, road upgrade applications and addendums to approvals.

Environmental Compliance and Auditing

- Undertaking audits
- Audit reports to meet regulatory requirements
- Proposing solutions to non-compliance issues.

Environmental Management Plans

- Construction Environmental Management Plans
- Operational Environmental Management Plans
- Waste Management Plans
- Pollution Incident Response and Management Plans
- Erosion and Sediment Control Plans
- Biodiversity Plans
- Landscape Plans & Water Management Plans
- Noise and Vibration Plans & Air Quality Plans
- Traffic and Transport plans.

Environmental Modelling

- Noise, air quality, vibration, effluent re-use.

Environmental Monitoring

- Groundwater quality, surface water quality, noise, vibration, air quality.

Resource Recovery, Waste Management and Sustainability

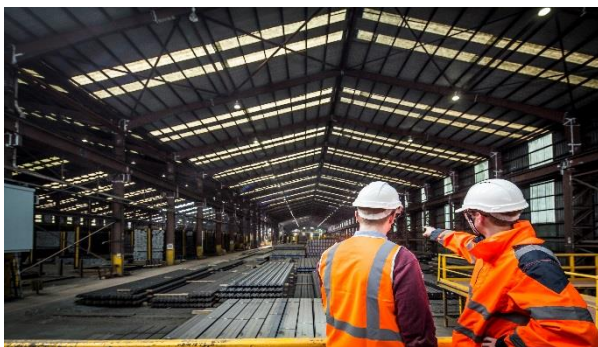
- Preparation of Waste Management Plans
- Facilitating reporting requirements and compliance
- Performing waste assessments and recommending best practice solutions
- Energy and water efficiency audits
- Re-thinking solutions to include sustainability principles.

Hydraulics & Hydrology

- Management and design of water, sewer and drainage systems
- Catchment studies
- Water way rehabilitation
- Flood defence works.

Climate Change

- Assessments of impacts resulting from coastal erosion and inundation
- Assessment of climate projection model data to identify climate factors important in planning and design of future assets.



Civil & Structural

pitt&sherry provide expert advice and design in all areas of civil works – from pavement failure investigation to structural design, management of construction and installation of an engineered solution.

We provide an integrated and comprehensive service, working closely with our geotechnical engineers, using reliable knowledge of ground properties and behaviour to ensure the safe and economic performance of structures and road design.

Our engineering professionals provide innovative solutions using the latest design software, working to the latest codes and drawing on our certified quality management systems.

Our specific offerings include:

Pavements, hardstands and roads

- Pavement geometry
- Selection of surfacing
- Sub-grade evaluation
- Design and specification
- Performance and condition monitoring
- Rehabilitation design
- Unbound granular pavements
- Three-dimensional surface modelling.

Structures

Structural design of:

- Buildings including foundation design for a range of equipment and buildings
- Short and long bridges
- Culverts & retaining walls
- Sign structures & traffic barriers
- Temporary works
- Structural inspection and remediation engineering
- Proof engineering
- Existing structure checks for integrity, capacity and condition
- Waste water treatment facilities, including in-ground storage ponds
- Storm water hydraulic modelling and associated infrastructure.

Mechanical & Electrical

pitt&sherry can provide all facets of mechanical and electrical engineering services, with the ability to integrate our expertise from complex industrial projects and our relationships with established manufacturers, to deliver multi-disciplinary projects across all sectors.

Our services draw on in-house knowledge in building physics, simulation modelling, water management and building services engineering to provide sustainable solutions in the planning and design of building and plant mechanical and electrical services.

Our specific offerings include:

Electrical powered distribution

- Electrical measurement and investigation, load studies, power factor correction and harmonics
- Distribution design including transformer sizing and protection system modelling
- Switchboard design, including intelligent motor control centres
- Sewage pump station and water pump station electrical design
- LV and final sub circuit power distribution design
- Lighting modelling and designs, both exterior (airport apron lighting, roads and public spaces) and interior (buildings, industrial warehouses)
- Inspection and condition assessments of electrical infrastructure.

Instrumentation & control

- Selection and design of industrial instrumentation systems
- Control system definition (functional description)
- Selection of equipment for hazardous areas (vapours and dust)

- Field-bus and remote Input / Output (I/O) systems, including hazardous area applications
- Industrial and general telemetry systems (radio and public switched telephone network)
- Motor control, variable speed drives including electromagnetic compatibility measures
- Building Automation / Control systems including lighting control systems
- In-service inspection and functional testing of control and safety systems.

Transient & lightning protection

- Lightning and transient protection surveys
- Integration of protection into structural design
- Earthing design and assessment
- Specification of surge protection equipment.

Mechanical Engineering Design

- Mechanical plant and equipment
- Moving plant (cranes, hoists) design verification
- Installation and commissioning procedures
- Operation and maintenance manuals
- Investigations and optimisation of existing plant and equipment
- Mechanical structures, from machinery beds to steelwork structure, chutes and hoppers, to piping and pumping systems.
- Hazard and operability studies (HAZOP).

Mechanical Services:

- Air-conditioning
- Building monitoring and control systems (BMCS)
- Dust extraction
- Heating and ventilation
- Mechanical building maintenance
- Fire services (sprinkler systems, fire hydrant, fire pumps and tanks, fire detection, warning systems)
- Hydraulic services (hot and cold water, sanitisation, sewer and trade waste systems).



Asset Management

pitt&sherry have expertise in a broad range of activities associated with management of infrastructure & industrial assets through their full life cycle. We appreciate the role that assets play in delivering strategic outcomes and ensuring systems support the economic, environmental and social needs of an organisation.

We have a strong track record working with clients to collaboratively achieve their goals of optimising the procurement, design, operation, maintenance, refurbishment, replacement and disposal of assets. Our Asset Management team is enhanced through access to the skills and competencies in the wider pitt&sherry business, allowing us to better understand each sector and client, and provide a comprehensive integrated asset management system.

Our specific offerings include:

Strategic asset management

- System reviews
- Strategic asset management planning and implementation.

Asset information

- Information software
- Geographic information systems
- Data capture
- Management of information systems
- Pavement and bridge management systems
- Database design and operation
- Data warehousing
- Bureau services and web-based client solutions.

Asset assessment

- Condition and life assessments
- Valuations
- Risk management
- Economic and life cycle analysis
- Performance benchmarking
- Optimised renewal and maintenance strategies.

Asset procurement

- Full range product management
- Contract administration
- Long-term maintenance contracts
- Design and documentation.

Building Surveying

pitt&sherry Building Surveying is part of the wider pitt&sherry consultancy group who offer a complete range of building surveying services including building certification, essential services management, access consultancy, energy efficiency, evacuation procedures, specialised technical and legislative reports on issues such as property pre-purchase, change of use, strata subdivision and dispute advice.

We have developed bespoke software to achieve efficiencies, for example in the regulatory process; while maintaining strong relationships with statutory authorities and working closely with designers and clients to find economical solutions early in the project life-cycle.



Our dedicated and specialist staff are amongst the most qualified and experienced in the industry. A depth and breadth of experience and knowledge means clients can be assured that the compliance issues relating to their project are in reliable hands.

Our specialist offerings include:

Building Certification

- Assessment and certification of all classes of buildings both domestic and commercial
- Consultation with developers and design teams

assisting with compliance solutions

- Assessment of performance solutions under Building Code of Australia
- Local government building control management.

Essential services management

- Developing and directing maintenance programs
- On-site management manuals
- Maintenance auditing and inspections
- Review and updating maintenance schedules.

Access consultancy

- Advice regarding compliance with legislative requirements and good practice in accessibility
- Performance solutions for innovative designs
- Site audits, compliance auditing and reporting.

Energy auditing

- Accredited assessors providing advice on energy efficiency in buildings
- Energy efficiency ratings for new and existing buildings.

Emergency management plans

- Advice on legislative requirements for emergency management in buildings
- Developing and implementing emergency evacuation procedures

Specialist reporting

- Assessment of existing buildings for proposed change of use
- Bushfire assessments
- Strata and subdivision for new and old buildings
- Pre-purchase inspection and reporting.

Our Track Record

pitt&sherry have successfully delivered projects for a broad range of clients. We develop and maintain good relationships by understanding each client's unique needs, and providing quality services to meet their specific requirements.

A selection of project examples for our Airport Clients include:

Brisbane Airport Corporation (BAC) — Waste Management Strategy

In 2012, pitt&sherry assisted BAC prepare their Waste Management Strategy to accompany their 2009 Master Plan for the redevelopment of the Brisbane Airport buildings and surrounding lands. The purpose of the Strategy was to bring Brisbane Airport's waste management and recycling initiatives in line with world-class airport waste management systems. This Waste Management Strategy will assist BAC deliver systems, infrastructure and training to cater for waste produced by the 45 million passengers and 50,000 staff who will use BAC's facilities by 2029. The strategy includes initiatives and requirements applicable to tenants, Facilities Managers and other service providers to continually reduce the amount of waste, increase recycling rates and reduce the costs associated with waste generation.



Sydney Metro Airports Limited—Airport Environmental Advisor

pitt&sherry functioned as the Environmental Advisor for Bankstown and Camden Airports. The role involved:

- Overseeing the day-to-day operations and environmental management of these Airports
- Reviewing tenant compliance audits, delivering compliance reports, performing energy audits
- Reviewing development applications and developing environmental procedures for the Environmental Management System (EMS)
- Preparing annual reports and applications for grant assistance.

Our environmental advisory role at these Airports has enabled us to continually recommend action for improved environmental performance and ensure the timely completion of Airport Environment Strategy commitments and annual reporting. It has also meant that Airport staff have access to up-to-date environmental management knowledge and experience.

Qantas Environmental Audit

Qantas commissioned pitt&sherry to conduct a review of their existing management systems. The objective was to assess pittsh.com.au

the effectiveness of their environmental management and ensure all environmental issues are properly managed. We also reviewed the operations and management systems of the aircraft maintenance and quarantine operations at Kingsford Smith Airport in Sydney.

Australian Air Express (AAE) Hobart Airport

pitt&sherry undertook the structural, hydraulic, mechanical and electrical engineering design services; commissioned by the architects responsible for the AAE Building Design. The services we provided included hard stands, cool rooms, offices, hanger facilities, mechanical services, electrical services including the ITC and fire detection systems, and both internal and external hydraulic systems.



Coffs Harbour Airport – Traffic Plan

pitt&sherry were commissioned to review and make recommendations on traffic/pedestrian flow around the precinct of Coffs Harbour Airport. By working with the airport, the local Council and stakeholders, we developed a solution which considered the airport traffic flows and balanced commercial traffic needs with that of the general public, addressing key issues such as driver confusion and traffic congestion. As part of the scope, pitt&sherry also provided budget costings to advise the project's future implementation.



Hobart International Airport – Water Infrastructure Upgrade

pitt&sherry provided design services to Hobart Airport for extending the internal water reticulation to supply existing and proposed commercial tenancies. This included the design of fire mains with hydrants, fire sprinkler system and hydrant flow.

pitt&sherry also evaluated the security of the water supply to the airport, including feasibility studies with costings. Once Hobart Airport commissioned the construction work, pitt&sherry were subsequently engaged to perform site monitoring and testing activities.

Safety, environmental & quality accreditation

pitt&sherry operates within a formal Integrated Management System (IMS) framework; incorporating quality, Work Health and Safety (WHS), and environmental elements. This framework ensures all staff uphold high values and practices in:



- Risk Management
 - ✓ Actively manage risks through establishing context, identifying risks, analysing risks, evaluating mitigation measures, adopting appropriate response mechanisms, monitoring and reviewing the risks and mitigation, and maintaining communication throughout the risk cycle.
- Safety in Design
 - ✓ Considering potential health and safety risks in the construction, operation, maintenance and end-of-life phases of the project, while being aware that the early stages of design are a critical time for safety considerations.
- Environmental Management
 - ✓ Ensuring that the work we undertake, both direct field work as well as design services, has minimal impact on the natural environment.

- Quality
 - ✓ Certification under the ISO:9001 quality management system provides assurance of our quality standards. We always prioritise working with our clients to ensure appropriate quality processes are tailored to each individual project.
- OHS Standards and WHS Legislation
 - ✓ Ensuring all relevant codes, standards and legislation are adhered to through access to qualified personnel, formal documentation and expert advice to all staff.
- Information security
 - ✓ Experienced working with highly sensitive data. We have the ability to implement different information management systems to suit the project and client requirements, and use technology to enhance rather than hinder security.
- Continuous improvement
 - ✓ Commencing and completing every project with lessons learned workshops, we draw upon our knowledge and experience to assess each unique project and understand how learnings can be applied elsewhere.

All subcontractors we engage are required to comply with our code of conduct and uphold the same level of integrity and quality of output.

Airport & Aviation General Capability Statement

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