



# CAPABILITY STATEMENT



**TRUSTED LEADERS IN THE CIVIL CONSTRUCTION,  
MINING & TUNNELLING INDUSTRY**

PROJECT MANAGEMENT | TUNNELLING | MINING | ENVIRONMENTAL | GEOTECHNICAL ENGINEERING | SURVEYING



## ABOUT US

JDK Geotech Pty Ltd (JDK) provides leading engineering and project management solutions for large-scale projects. Our success is built on mutual trust, consistent delivery standards and professional responsibility across all levels of our organisation.

As a leading civil engineering, project management firm, we deliver unparalleled support and innovative solutions both within Australia and internationally. JDK was established in 2016 to provide professional engineering and project management services tailored to specific project requirements. Today, we are proud to represent government agencies, tier one construction companies and consulting firms throughout Australia.

Specialising in the seamless delivery of large-scale projects, including long-term fixed contracts and shift coverage, we have built a strong reputation across multiple markets. Our suite of geological, geotechnical, environmental and project management solutions are delivered by highly experienced professionals, well regarded throughout the industry.

The JDK team offers technical advice for myriad domestic and international sectors, including the civil construction, tunnelling, mining and environmental industries. Our mandate to listen to your needs and place your requirements at the core of each project is what underpins every service we provide.

## OUR CULTURE

Our core values uphold the importance of personal customer service and professional responsibility. Our technical and management team prioritise effective communication aligned to the JDK vision and values aimed at positive working culture. Our culture supports strong collaboration in teams fostering innovative thinking.

## VISION

JDK's vision is to help Australia thrive by meeting and exceeding the expectations of all stakeholders. As an Australian owned organisation, our engineering solutions support a positive future for the country and is up held up every JDK team member.

## MISSION

JDK's mission is to deliver an outstanding suite of engineering and project management services to benefit communities across Australia.

# WHAT WE DO

At JDK, we provide a range of engineering solutions to help create a better Australia. From analysis to execution, we help build value and support communities through innovative engineering and construction services. We specialise in project management, geotechnical engineering and geological design, rockfall remediation, mining and environmental management.

## WE COMBINE INSIGHT WITH EXPERIENCE TO DELIVER RESULTS

### We respect your business

At JDK, we focus on our customers at all times. We listen to your goals, understand your needs and respect your vision. We believe in building strong relationships based on trust and professional responsibility. Our clear communication and mutual respect are key to delivering consistent and high-quality results.

### We support your success

Our consulting team supports your vision and helps to drive your success. We have the proven professional expertise needed to work with our growing client base and a proven record of delivering innovative solutions across industries and disciplines. Our experienced and highly professional team solves complex problems and delivers professional solutions for every project we approach.

### We respond to your needs

At JDK, we believe in strength through flexibility. We can respond to your changing needs over time to deliver relevant solutions based on real-world conditions. Our team is proactive, adaptive and highly motivated. We understand and respect altered project scopes and address changing requirements quickly without adding unwanted complexity.

## Our expertise

JDK offers diverse geotechnical engineering solutions for large-scale public and commercial projects. Our geotechnical consultants specialise in mining, tunnelling and civil construction services for Australian and international clients, since our inception in 2016. Our ability to meet project specifications, exceed best practice guidelines and deliver exceptional geotechnical engineering and project management solutions are due to the calibre, ethics and experience of our people.

## Our capabilities

SECTORS	ENGINEERING DESIGN	MANAGEMENT SOLUTIONS	TECHNICAL SCOPE	TESTING SERVICES
<b>INFRASTRUCTURE</b>	Tunnel Design	Civil construction management	Project engineering	Compaction and deflection testing
<b>MINING</b>	Feasibility studies (mining, civil and environmental)	Owner representative	Geotechnical engineering	Nuclear density testing
<b>POWER (HYDRO)</b>	Tunnel stability analysis and design review	Project management	Mining and exploration	NATA approved reporting
<b>TRANSPORTATION</b>	Third-party design review	Waste management	Geology environmental engineering	Proctor compaction testing
<b>GOVERNMENT</b>	Geotechnical interpretative and baseline reports	Environmental management	Surveying	SPT & CPT testing
	Blast design	Systems engineering management	Quality	Hazardous material assessment
	Foundation design	Quality management	Assurance and quality control (QAQC)	Asbestos assessment
	Rock cut and tunnel design for roadways	Occupational health and safety		

# PROJECT MANAGEMENT

The JDK Project Management Team specialises in all aspects of project management. We are confident at leading projects from conception to completion, with our project managers motivated by the delivery of successful outcomes. We offer advanced quality control across extensive project scopes with precision. Our positive success rate for complex, large-scale projects is a source of pride for the JDK team. Our project management services include;

- Scheduling and forecasting
- Project set-up
- Project delivery
- Quality assurance/quality control
- Due diligence reporting
- Quality management and asset management solutions
- Compliance scoping, pre-feasibility and feasibility studies
- Consistent communication strategies
- Contract management

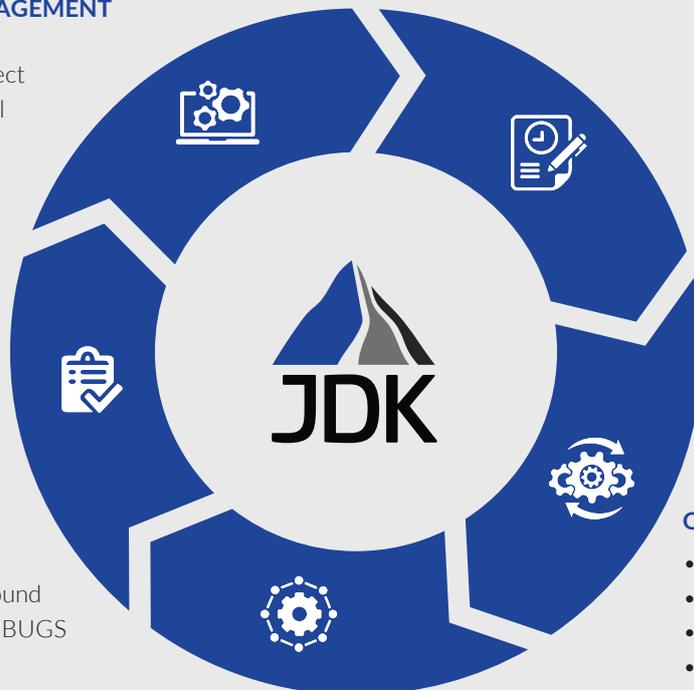


## PROJECT MANAGEMENT SOFTWARE

- Microsoft Project
- Microsoft Excel
- PMBOK
- PMP
- Prince2

## AFFILIATIONS AND ACCREDITATIONS

- Engineers Australia
- Australian Tunnelling Society ATS
- AUSIMM
- Geological Society of Australia
- Bowen Basin Underground Geotechnical Society BBUGS



## DATA MANAGEMENT

- Microsoft Project
- Microsoft Excel
- Microsoft Database
- SQL
- Python

## OPERATIONAL PLANNING

- Feasibility studies
- Scheduling and forecasting
- Construction reporting
- Construction phase services
- As built design review

## INTERGRATED MANAGEMENT SYSTEM

- ISO 9001:2015 Quality Management
- ISO 45001:2015 OH&S
- ISO 14001:2015 Environmental Management
- ISO 55001:2014 Asset Management



# INTEGRATED MANAGEMENT SYSTEM

JDK strives to ensure our management standards are proficient with industry best.

Our integrated management system is compliant with the following workplace standards:

- ✓ Quality Management to ISO 9001
- ✓ Occupational Health and Safety Management to ISO 45001
- ✓ Environmental Management Systems to ISO 14001
- ✓ Asset Management Systems to ISO 55001:2014



JDK's streamlined, integrated management system aims to provide high-quality outcomes delivered in a safe and efficient manner. Our specialist management team can provide the know-how to ensure your project complies with all regulatory requirements.

## Quality assurance

Each project is an opportunity to build on our knowledge. JDK sets and follows project-specific guidelines that always meet and often exceed project specifications. We never compromise on standards and follow a strict work ethic based on professional accountability and attention to detail.

## Workplace health & safety

JDK is dedicated to all aspects of workplace health and safety.

We make the following commitments to the people who define our success:

- We provide valuable employment opportunities for emerging professionals
- We encourage education and professional connections through industry conferences and functions
- We pride ourselves on consistent training to ensure continuous improvement
- We meet and exceed all occupational health and safety guidelines
- We promote ongoing performance improvement through management and risk mitigation
- We are committed to personal health and safety at all times

JDK observes occupational health and safety systems aligned to ISO 45001. We are committed to ongoing reporting, health assessment and workplace evaluation of HIRAC (Hazard Identification, Risk Assessment and Control process) protocols to eliminate work-related injuries.



# WHY CHOOSE US

Our knowledge and experience will drive your project forward with confidence.

- ✓ Value delivered through expertise
- ✓ Proven track record across industry sectors
- ✓ Complete high-quality project solutions
- ✓ Commitment to health and safety
- ✓ Access to industry-leading executives and teams



# OUR PEOPLE

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**JAMES KIDD**  
**Managing Director/Principal Consultant**

James is a driven project manager with over twelve years of professional experience throughout the United States, Canada and Australia. His career spans various disciplines of geotechnical engineering and project management. Now at the helm of JDK, a growing Australian engineering consultancy, James has proven his ability to manage multiple technical scopes on billion-dollar valued projects, maintain a strong client focus and contribute significant value to all project stakeholders.



**PATRICK JACKSON**  
**Business Operations Manager**

Patrick is a results-driven Business Operations Manager with professional experience in projects all over Australia. Residing in the North Shore in Sydney his career spans multifaceted geology disciplines, mining, large scale construction and tunnelling projects. His extensive work in mining and civil construction sectors has seen Patrick consistently provide key project improvement recommendations and technical solutions in challenging work environments.



**JONATHAN BURTON**  
**Senior Geotechnical Engineer (Mining)**

Jonathan has ten years of experience in geotechnical engineering, geology and project management within the mining industry. Technically proficient, with a strong focus on safety and teamwork, he has been involved in managing geological and geotechnical teams, budgets and projects across multiple open-cut and underground coal mines in Australia. Jonathan has successfully led teams to provide solutions and improvements across multiple technical functions in challenging mining environments.



**RYAN SOUSA**  
**Project Engineer**

Ryan's decade long experience spans operations in both Canada and Australia. Working in the capacity of geotechnical engineer and site/project engineer. He brings to his role a high level of adaptability, excellent communication skills and the ability to deliver engineering outcomes of note. In his current role as Project Engineer for JDK Geotech, Ryan is a well-respected leader skilled in all levels of engineering.



**LYSA RADVAN**  
**Intermediate Mining Geologist**

Lysa has worked within large scale civil works, including North and WestConnex along with ongoing underground geotechnical coverage in coal projects in Queensland. Her knowledge and experience over multiple projects extends to remediation works on final tunnel lining as well as geological and geotechnical assessments. Her ability to self-motivate, work across projects and deliver considered outcomes are highly valued by all members of her team.

# NOTABLE PROJECTS

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## NORTHCONNEX



<b>Client</b>	LendLease Bouygues Joint Venture LSBJV
<b>Value</b>	\$3.7 Billion
<b>Expertise</b>	Tunnelling and geotechnical engineering
<b>Sectors</b>	Infrastructure, transportation and government
<b>Location</b>	Sydney NSW

### Project Description

The NorthConnex project provides a multi-lane motorway that links the M1 Pacific Motorway at Wahroonga NSW to the M2 Motorway at West Pennant Hills, NSW. This project features twin motorway tunnels around 9 km in length and a height clearance of 5.30 m. The Sydney tunnels were constructed with three-lane capacity in each direction, including two lanes and a breakdown pull off-lane.

### Approach and Innovation

JDK Geotechnical Team was engaged to systematically capture geotechnical and geological information to the final installation of support. The JDK team interacted with several client teams across disciplines, providing extensive geotechnical expertise to help manage and control tunnelling risk, add value across critical areas of the project.

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## WESTCONNEX



<b>Client</b>	Acciona Samsung Bouygues Joint Venture ASBJV
<b>Value</b>	\$16.8 Billion
<b>Expertise</b>	Tunnelling and geotechnical engineering
<b>Sectors</b>	Infrastructure, transportation and government
<b>Location</b>	Sydney NSW

### Project Description

The WestConnex 3A project consisted of constructing the M4-M5 Link twin mainline tunnels between the M4 and M5 and stub tunnels to the Rozelle Interchange. The WestConnex is Australia's largest infrastructure project to date.

### Approach and Innovation

Under the direction of senior ASBJV management, JDK was responsible for providing extensive geotechnical expertise to interpret the practices used to manage and control tunnelling risk. JDK's geotechnical vast knowledge coupled with stakeholder communication enabled the efficient capability of our deliverables to the ASBJV team. JDK was able to utilise industry best practice to ensure geotechnical risk was identified, captured and communicated.

# NOTABLE PROJECTS

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## SYDNEY METRO CITY & SOUTH WEST



<b>Client</b>	John Holland CPB Ghella Joint Venture (JHCPBG)/Pells Sullivan Meynink (PSM)
<b>Value</b>	\$11.5 Billion
<b>Expertise</b>	Tunnelling and geotechnical engineering
<b>Sectors</b>	Infrastructure, transportation and government
<b>Location</b>	Sydney NSW

### Project Description

The Sydney Metro City and Southwest project aims to provide rail tunnels and associated transportation infrastructure to Sydney's commuters and surrounding communities. The Sydney Metro project is Australia's second largest infrastructure project to date.

### Approach and Innovation

JDK was engaged to work on the Sydney Metro City & Southwest project, communicating successfully with multiple stakeholders and providing extensive geotechnical expertise throughout the project. The implementation of monitoring controls was completed at the highest quality and no client issues, or damage to existing infrastructure. Innovative data collection methods were employed by JDK throughout the project to deliver high-quality data capture for future works.

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## SYDNEY METRO CENTRAL WALK PROJECT



<b>Client</b>	Laing O'Rourke and Tunnelling Solutions
<b>Value</b>	\$955 Million
<b>Expertise</b>	Tunnelling and geotechnical engineering and project engineering
<b>Sectors</b>	Infrastructure, transportation and government
<b>Location</b>	Sydney NSW

### Project Description

The Sydney Metro Central Station Main Works (CSM) – Central Walk contract included the Central Advanced Adit tunnel and the adjacent Central Walk project providing an underground concourse to Australia's busiest train station.

### Approach and Innovation

JDK was engaged in applying their systematic capture of geotechnical and geological information and expertise to control tunnelling risk for the Central Adit Tunnel project. After completing the Central Adit project, JDK was re-engaged to provide project engineering services providing industry best reporting and reviewing methodology to systematically capture project requirement information to the client based on the design.

# NOTABLE PROJECTS

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## GRASSTREE COAL MINE



<b>Client</b>	Anglo American Metallurgical Coal Pty Ltd
<b>Expertise</b>	Geotechnical engineering
<b>Sectors</b>	Mining
<b>Location</b>	Bowen Basin QLD

### Project Description

Anglo American's Grasstree Coal mine is an underground coal mine located in Queensland's Bowen Basin. The mine utilises the longwall method to extract coal from the German Creek coal seam.

### Approach and Innovation

JDK was engaged by Anglo American to undertake an audit of the Grasstree mine workings, formally known as a Critical Areas Audit (CAA), in order to confirm excavation stability generally. In addition to the CAA, a supplementary audit of the mine's strata defect system was carried out to facilitate system optimisation and ensure the ongoing effective management of strata defects in accordance with Anglo American's Operational Management System. In addition to the CAA's, JDK provides ongoing geotechnical recommendations and site coverage to ensure the daily requirements of the technical services department are met throughout the project's remaining production years.

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## OAKY CREEK COAL MINE



<b>Client</b>	Glencore Pty Ltd
<b>Value</b>	\$755 Million
<b>Expertise</b>	Geotechnical engineering
<b>Sectors</b>	Mining
<b>Location</b>	Bowen Basin QLD

### Project Description

Oaky Creek Coal mine is an underground coal mine located in Queensland's Bowen Basin, 46km south west of middle mount.

### Approach and Innovation

JDK was engaged to undertake ad-hoc underground geotechnical coverage as required by the client (Glencore). Under the supervision of site management, JDK was responsible for providing extensive geotechnical expertise to interpret the practices used to manage and control underground coal mining risk. JDK's geotechnical vast knowledge coupled with stakeholder communication enabled the efficient capability of our deliverables to the Glencore team. JDK was able to utilise industry best practice to ensure geotechnical risk was identified, captured and communicated.

# NOTABLE PROJECTS

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## CENTRAL SUBWAY PROJECT



<b>Client</b>	San Francisco Municipal Transportation Agency (SFMTA) / JACOBS
<b>Value</b>	\$1.57 Billion
<b>Expertise</b>	Tunnelling and geotechnical engineering
<b>Sectors</b>	Infrastructure, transportation and government
<b>Location</b>	San Francisco USA

### Project Description

This large-scale project adds two new underground tunnels and four subway stations providing, a direct rapid transit link between downtown and the existing train line. The third Line Route on 3rd Street will vastly improve transportation from some of the city's busiest, most densely populated areas once commissioned.

### Approach and Innovation

Acting as the clients representative, JDK effectively engaged with multiple contractors to safely and effectively deliver the project's geotechnical reporting and instrumentation requirements. Through a systematic review of each project methodology, JDK was able to help achieve project outcomes on time and within budget effectively.

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## NARROWS INLET HYDROELECTRIC POWER PROJECT



<b>Client</b>	BluEarth Renewables / MPMSI
<b>Value</b>	\$287 Million
<b>Expertise</b>	Project management and geotechnical engineering
<b>Sectors</b>	Infrastructure, government, power and water
<b>Location</b>	British Columbia Canada

### Project Description

The project included the delivery and installation of the following infrastructure:

- Three hydroelectric generating stations with a combined design capacity of 33 megawatts.
- Chickwat Creek – Conventional run-of-river hydroelectric generating station with a design capacity of 19 megawatts.

### Approach and Innovation

JDK's professional interaction with relevant stakeholders, extensive geotechnical expertise and interpretation of the methodology used to manage and control risk proved highly successful. JDK completed all work safely, within budget and on time while meeting the requirements of the contract's design. Our precise inferences of ground conditions allowed the client to adhere to their deliverables schedule and utilise their resources efficiently.

# NOTABLE PROJECTS

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## CULLITON CREEK HYDROELECTRIC POWER PROJECT



<b>Client</b>	Tetra Tech
<b>Value</b>	\$4 Million
<b>Expertise</b>	Project management and geotechnical engineering
<b>Sectors</b>	Infrastructure, government, power and water
<b>Location</b>	British Columbia Canada

### Project Description

The facility involved the construction management and geotechnical rock-cut design in allowing the installation of a 3.20km long penstock (1.48m diameter buried pipe both HDPE and steel). The project boasted two 7.5 MW vertical axis Pelton turbines supplied by rainwater and 13km of 69 kV transmission lines.

### Approach and Innovation

JDK was able to utilise industry best practice for project deliverables effectively. The efficient implementation of blast design, rock anchor support design and rockfall remediation allowed the client to deliver the project on time and within budget. The technical expertise and construction management allowed the successful implementation of the project.

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## GAHCHO KUE DIAMOND MINE



<b>Client</b>	De Beers Group
<b>Value</b>	\$0.90 Million engineering fees
<b>Expertise</b>	Geotechnical engineering and mine design
<b>Sectors</b>	Mining
<b>Location</b>	Northwest Territories Canada

### Project Description

The project is the largest diamond mine globally, producing roughly 5.4 Million carats annually within the Gahcho Kué kimberlite pipes. The Gahcho Kue Diamond Mine is a 49%–51% joint-venture between Mountain Province Diamonds and De Beers Group Canada.

### Approach and Innovation

JDK was engaged for the pre-feasibility mine design, geotechnical support and kinematic stability analysis of mine. JDK's professional interaction with relevant stakeholders, extensive geotechnical expertise and interpretation of the methodology used to manage and control geotechnical risk proved highly successful. JDK completed all work safely, within budget and on time while meeting the requirements of the contract's design.



## CONTACT US

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