

Role Description

Pavement Engineer



Transport
for NSW

Cluster	Transport for NSW
Agency	Roads and Maritime Services
Division/ Branch/ Unit	Infrastructure and Place/ Technical Services / Engineering Services/ Pavements and Geotechnical
Location	Parramatta
Classification/ Grade/ Band	Engineer Level 1/2
Role Number	Various
ANZSCO Code	233211
PCAT Code	1229192
Date of Approval	July 2020
Agency Website	www.transport.nsw.gov.au

Agency overview

At Transport, we're passionate about making NSW a better place to live, work and visit. Our vision is to give everyone the freedom to choose how and when they get around, no matter where they live. Right now, we're delivering a \$55.6bn program – the largest Australia has ever seen – to keep people and goods moving, connect communities and shape the future of our cities, centres and regions. At Transport, we're also committed to creating a diverse, inclusive and flexible workforce, which reflects the community and the customers we serve.

Our organization – Transport for NSW – is comprised of numerous integrated divisions that focus on achieving community outcomes for the greater good and on putting our customers at the centre and our people at the heart of everything we do.

Infrastructure and Place

We are a trusted partner to our clients, developing and delivering smart, integrated and sustainable infrastructure and places that are valued by our customers and communities.

Primary purpose of the role

The Pavement Engineer is responsible for the review of concrete pavement materials, mix designs and maintenance of the concrete mix register. He/she is also expected to engage in providing technical advice on rigid pavement design and construction to projects and actively participate in the Technology program.

Key accountabilities

- Minimize technical risk by observing and reporting on practices in design, construction and maintenance, and undertaking work within the quality system.
- Ensure technical standards are maintained by assisting in construction audits, providing technical advice and assisting in the drafting of specifications and test methods.



- Assist Project Managers in the review of proposed pavement designs and review of pavement construction non-conformance issues and RFIs.
- Contribute to the development and retention of technical knowledge by assisting in the delivery and facilitation of training courses.
- Contribute to innovation through the establishment, monitoring and reporting on field trials.
- Assist in the coordination of projects with staff and other personnel from other agencies and industry.

Key challenges

- Monitoring pavement structures and the risks from loss of pavement condition.
- Providing technical advice and analysis of pavement rebuilding needs and procedures.
- Identifying and implementing technology developments for improving and managing pavement conditions.

Key relationships

Who	Why
Internal	
Manager	<ul style="list-style-type: none"> • Receive broad guidance, collaborate to determine high-level and strategic priorities, exchange information to drive the improvement process • Providing expert advice to support decision making • Escalate complex issues and problems
Other Transport for NSW Operational and Regional Branches	<ul style="list-style-type: none"> • Provide project delivery support by providing technical advice and direction for pavement and geotechnical aspects • Provide valuable assistance to senior engineers / work team through the preparation of design and concept plans and the analysis of client designs and proposals. • Collaborate and share information for the effective and successful delivery of TfNSW projects.
Key Operational Stakeholder Groups	<ul style="list-style-type: none"> • To gain a well-developed understanding of all stakeholder needs • Influence and drive agreed outcomes on projects and contracts • Ensure consistent delivery of engineering standards
External	
Industry partners, Community interest groups and other Local and State government organisation	<ul style="list-style-type: none"> • Keep abreast of the latest trends in the discipline • Improve industry knowledge of design, construction and maintenance • Collaborate to improve outcomes
Pavement designers and construction contractors	<ul style="list-style-type: none"> • Develop opportunities for engagement and delivery of services.

Role dimensions

Decision making

The Pavement Engineer would need to be able to work autonomously with respect to decision making, within the limits of delegated authority.

Reporting line

The role is accountable and reports to the Pavement Manager (Rigid Pavements)

Direct reports

Nil

Budget/Expenditure

Nil

Key knowledge and experience

- Demonstrated knowledge of technical aspects of rigid pavement design/construction/materials technology.
- Demonstrated knowledge of road pavement technical specifications and standard drawings.
- Demonstrated ability in research and development, and in project management.

Essential requirements





- A four-year civil engineering degree from an Australian university or equivalent overseas qualification.
- Proven experience in pavement design, analysis and decision making.
- Possess a current and valid Australian motor vehicle driver license and be willing to work outside normal working hours and travel on occasion.

Capabilities for the role

The NSW Public Sector Capability Framework applies to all NSW public sector employees. The Capability Framework is available at www.psc.nsw.gov.au/capabilityframework

Capability summary

Below is the full list of capabilities and the level required for this role, the capabilities in bold are the focus capabilities for this role. Refer to the next section for further information about the focus capabilities.

NSW Public Sector Capability Framework		
Capability Group	Capability Name	Level
 Personal Attributes	Display Resilience and Courage	Intermediate
	Act with Integrity	Intermediate
	Manage Self	Adept
	Value Diversity	Adept
 Relationships	Communicate Effectively	Adept
	Commit to Customer Service	Intermediate
	Work Collaboratively	Intermediate
	Influence and Negotiate	Intermediate
 Results	Deliver Results	Intermediate
	Plan and Prioritise	Intermediate
	Think and Solve Problems	Adept
	Demonstrate Accountability	Intermediate
 Business Enablers	Finance	Intermediate
	Technology	Adept
	Procurement and Contract Management	Adept
	Project Management	Intermediate

Focus capabilities

The focus capabilities for the role are the capabilities in which occupants must demonstrate immediate competence. The behavioural indicators provide examples of the types of behaviours that would be expected at that level and should be reviewed in conjunction with the role's key accountabilities.

NSW Public Sector Capability Framework		
Group and Capability	Level	Behavioural Indicators
Personal Attributes Manage self	Adept	<ul style="list-style-type: none"> Look for and take advantage of opportunities to learn new skills and develop strengths Show commitment to achieving challenging goals Examine and reflect on own performance Seek and respond positively to constructive feedback and guidance Demonstrate a high level of personal motivation
Relationships Communicate effectively	Adept	<ul style="list-style-type: none"> Tailor communication to the audience Clearly explain complex concepts and arguments to individuals and groups Monitor own and others' non-verbal cues and adapt where necessary Create opportunities for others to be heard Actively listen to others and clarify own understanding Write fluently in a range of styles and formats
Relationships	Intermediate	<ul style="list-style-type: none"> Build a supportive and co-operative team environment

NSW Public Sector Capability Framework

Group and Capability	Level	Behavioural Indicators
Work collaboratively		<ul style="list-style-type: none"> • Share information and learning across teams • Acknowledge outcomes which were achieved by effective collaboration • Engage other teams/units to share information and solve issues and problems jointly • Support others in challenging situations
Relationships Influence and negotiate	Intermediate	<ul style="list-style-type: none"> • <input type="checkbox"/> Use facts, knowledge and experience to support recommendations • Work towards positive and mutually satisfactory outcomes • Identify and resolve issues in discussion with other staff and stakeholders • Identify others' concerns and expectations • Respond constructively to conflict and disagreements and be open to compromise • Keep discussions focused on the key issues
Results Deliver results	Intermediate	<ul style="list-style-type: none"> • Seek and apply specialist advice when required • Complete work tasks within set budgets, timeframes and standards • Take the initiative to progress and deliver own work and that of the team or unit • Contribute to allocating responsibilities and resources to ensure the team or unit achieves goals • Identify any barriers to achieving results and resolve these where possible • Proactively change or adjust plans when needed •
Results Think and solve problems	Adept	<ul style="list-style-type: none"> • Research and analyse information and make recommendations based on relevant evidence • Identify issues that may hinder completion of tasks and find appropriate solutions • Be willing to seek out input from others and share own ideas to achieve best outcomes • Identify ways to improve systems or processes which are used by the team/unit
Business Enablers Technology	Adept	<ul style="list-style-type: none"> • Demonstrate a sound understanding of technology relevant to the work unit, and identify and select the most appropriate technology for assigned tasks • Identify opportunities to use a broad range of communications technologies to deliver effective messages • Understand, act on and monitor compliance with information and communications security and use policies • Identify ways to leverage the value of technology to achieve team/unit outcomes, using the existing technology of the business • Support compliance with the records, information and knowledge management requirements of the organisation