



Bridge & Structures Engineer

Position Description – Infrastructure Engineering

Team:	Engineering Bridge & Structures	Location:	Wellington/Christchurch/Auckland
Reports to:	Bridge & Structures Engineer		
Role Type:	Permanent		

About Us

KiwiRail's Role in Aotearoa, New Zealand

KiwiRail, a proud State-Owned Enterprise, delivers sustainable and inclusive growth for our customers, communities, and people.

For more than 150 years, rail in New Zealand has connected communities, delivered freight and passengers around the country, and showcased our spectacular scenery to the world. Our purpose—Hononga Whaikaha, Oranga mo Aotearoa (Stronger Connections, Better New Zealand)—speaks to connection with our customers and the future needs of their businesses, connection with the communities we serve and operate in, and connection with each other. KiwiRail is carrying this legacy into the future, delivering connected rail and shipping transport services that create economic, social, and environmental value for New Zealand and New Zealanders.

Our Workplace

At KiwiRail, our values define the behaviour we expect from everyone. We have a team of over 4500 people, and every connection we make with each other, our union partners, our customers and all our stakeholders must be of the highest standard.



Safety, health, and well-being are our number one priority, ensuring our people return home safe and healthy every day.

About the Role

Purpose of the role

KiwiRail is in a phase of significant transformation to modernise and grow our rail and Interislander ferry services in Aotearoa.

This role is to support Engineering in delivering technical excellence, continuous improvement, and satisfaction to our customers and stakeholders.

The Engineering team have the core functions of Engineering Design, Engineering Advice, Codes and Standards, Assurance, and Asset Management.

The Bridge & Structures Engineer will report to the Engineering Team Leader Bridge & Structures and will be responsible for supporting with engineering aspects of design and maintenance work for railways infrastructure structures assets.

Key Accountabilities

Within the area of responsibility, this role is required to:

- Management of a Structural Inspectorate(s) and undertaking Inspection Reviews and ensuring the asset databases are maintained and managed.
- Assisting design solutions for bridge replacement (including foundations), and structures (bridges, tunnels, culverts, retaining walls, seawalls, lighting towers).
- Providing technical advice for the maintenance and upgrade of structures assets.
- Supporting the development of long-term asset management strategies for structures assets.
- Overseeing maintenance and renewal projects, managing contracts and liaising with third parties.

Key challenges

- Balancing opex and capex responsibilities whilst ensuring business priorities are met
- Facilitating asset management options based on scenarios which balance cost vs. risk vs. levels of service

Key Relationships		Manage /Lead	Deliver to	Collaborate with	Advise or inform
Here are the key relationships relevant to this role					
Internal	Engineering Team Leaders		✓	✓	
	Engineering and Asset Management Staff			✓	
	Technical Director				✓
	Professional Heads			✓	✓
	Structures Engineering Staff			✓	
External	Consultants	✓			
	Regulatory Bodies and Agencies			✓	
	WorkSafe			✓	
	Other Rail jurisdictions			✓	

What you will do to contribute

Health Safety and Wellbeing	<ul style="list-style-type: none"> • Ensure safety, health and well-being is the first priority for you and your colleagues. • Ensure that engineering safety risks are being identified, managed, mitigated and where possible, eliminated. • Ensure compliance with rail safety system standards, procedures and statutory requirements within your area of responsibility. • Be responsible for your own safety and for providing a safe work environment for all KiwiRail employees, customers, contractors, suppliers, visitors and the community in your area of responsibility. • Be responsible for the reporting and initial control of any safety or environmental hazard or incident identified by you or brought to your attention. • Undertake Safe work conversations, safety interactions and critical control verifications in the workplace.
Structures Engineering and Technical Advice	<ul style="list-style-type: none"> • Carry out design and/or peer review on bridge and structures maintenance and upgrade engineering solutions. • Provide expert technical advice to Engineering, customers, and stakeholders. • Attend incidents and/or assist with engineering analysis to recover from an incident. • Assess third party applications that effect railway infrastructure and issue approvals for third party work consistent with railway codes and policies. • Carry out site inspections/assessments of structures assets as required. • Scope and identify optimal solutions for structures projects, with a focus on innovation and continuous improvement. • Manage capital projects with optimal delivery in respect to time, quality and cost. • Manage and liaise with engineering consultants. • Participate in the Technical Committee.
Asset Management	<ul style="list-style-type: none"> • Collaborate with the business to set the strategic direction of Engineering. • Develop and recommend strategic asset management options based on scenarios which balance cost vs. risk vs. levels of service. • Process Inspection Reports for existing structures. • Prioritise asset maintenance needs and participate in quarterly operational meetings. • Identify required structures capital works. • Carry out rating route checks for new rolling stock configurations. • Assist in reviewing and developing processes to manage and analyse rating/fatigue. • Maintain records and asset databases as required as part of maintenance and design processes.
Assurance	<ul style="list-style-type: none"> • Review, update, and develop technical standards for KiwiRail's structures assets.

	<ul style="list-style-type: none"> • Oversee the quality assurance of Opex and Capex physical works. • Undertake, provide input into and review investigations into asset and process failures. • Liaise with field staff in the inspection of structures assets. • Undertake engineering inspections. • Review compliance reports. • Undertake Engineer Audit Activities • Maintain Engineering compliance.
Risk Management	<ul style="list-style-type: none"> • Conduct risk assessments and manage relevant asset risk registers. • Assist the business units in the understanding and management of risks related to structures hazards. • Articulate and elevate risks appropriately. • Suggest and contribute to eliminating and/or mitigating risks.
Learning and Development	<ul style="list-style-type: none"> • Keep up to date with new engineering technology and techniques. • Maintain engagement with technical leaders and colleagues to ensure your technical advice aligns with KiwiRail best practice. • Undertake on the job training across KiwiRail engineering disciplines and functions as required for personal and professional development and to keep skills up to date and relevant.



Decision Making

The position is accountable for decisions regarding inspectorate structural engineering objectives

Key decision-making requirements of the position include:

- Inspectorate structures related compliance decisions

Human Resources Delegations	Nil
Direct reports	Nil
Finance Delegations	Nil
Budget (operating and capital)	Nil
Travel Delegations	Nil
Statutory powers	Nil

Physical demands and the nature of work

This role is primarily administration-based and requires:

- prolonged sitting and high computer usage
- some network site visits including walking, standing, twisting, bending (at the waist), crouching (bend knee)
- carrying of laptop and paperwork when alternating between home and office
- limited lifting of up to 7 kg

Your role may include other tasks suited to your level, as your manager directs. This job description shows your current duties. We'll review and update it with you if your responsibilities change.

About you

Knowledge and experience

- 2+ years professional engineering experience
- Conceptual design of civil structures and bridges.
- Detailed design of civil structures and bridge component replacement.
- Structures Asset management
- Construction monitoring experience
- Project Management experience desirable.
- Experience in general civil engineering design and construction desirable.
- Interest and knowledge of railways desirable.

Ways of working / Work-related qualities

- Engaged and motivated to achieve business and group KPIs.
- Collaborative, respectful, engaging, and supportive within the team.
- Strong written and verbal communication skills, including the ability to effectively present information and advice to a range of audiences.
- Innovative, creative, and focused on continuous improvement.
- Customer-focused and driven to exceed service delivery expectations.
- Organised and able to manage conflicting demands in order to achieve deadlines and deliver responsibilities.
- Flexible and responsive to changing priorities as programmed and directed.
- Self-managing and able to work effectively without direct supervision.
- Self-aware and motivated to contribute personal strengths and identify and develop areas for personal improvement.
- Values-driven and consistently demonstrating honesty, integrity, professionalism.

Qualifications

You need either:

- Tertiary Engineering Degree with a relevant specialisation
- Working towards engineering chartership
- Relevant post-graduate qualifications desirable
- Specialisation in bridges and structures desirable

**CREATING
STRONGER
CONNECTIONS**

The KiwiRail logo, featuring the word "KiwiRail" in a bold, sans-serif font, followed by a stylized graphic of a kiwi bird's tail feathers.