

SCHEDULE ONE

POSITION DESCRIPTION

Position Title	Asset Engineer
Reporting To	Asset Manager
Location	Oringi Depot- Tararua Alliance

Purpose

Working within the Tararua Alliance, a partnership between Tararua District Council and Downer NZ, the Asset Engineer is responsible for delivering high-quality technical asset management services on a tactical level that support the effective planning, maintenance, and renewal of infrastructure assets across the Network. This role ensures that all engineering processes and deliverables related to asset management meet the standards of **The Downer Standard** and other network specific requirements of the contract.

People

Results Area	Activities	Expected Outcome
Zero Harm	<p>Support, implement and adhere to H&S policies and procedures.</p> <p>Support a culture that promotes and maintains zero harm, environmental and sustainability practice and management.</p> <p>Promote a safe and environmentally sound working environment and a culture of safe and responsible behaviors and attitudes.</p> <p>Contribute to the identification and minimization of business risks and compliance issues.</p>	<p>Zero Harm policies and practices are complied with under H&S policy, the Zero Harm Policy and other related policy and initiatives to keep yourself and others safe at Downer in the workplace.</p> <p>Works in a safe manner at all times to avoid personal injury to self and others.</p> <p>Accidents and near misses reported.</p> <p>All risks effectively managed and no outstanding compliance issues.</p>
Promote Asset Management	<p>Work with contract teams including Delivery, Engineering to educate and promote asset management principles and processes.</p>	<p>Contract team understands the Downer Asset Management Policy and Asset Management lifecycle and their responsibility for implementing it.</p> <p>Customers have confidence in our delivery of asset management requirements.</p>
People Management & Development	<p>Work with Asset Manager to develop training and succession plans to ensure technical capability in asset engineering.</p>	<p>Contract teams have a clear training and succession plan to develop staff particularly in asset inventory data collection, fault identification, condition rating and treatment selection.</p> <p>Take on the role of coach to any assigned asset engineering technician staff.</p>
Thought leadership	<p>In cooperation with other Downer Asset Management Team colleagues, develop</p>	<p>Identify system improvements and innovation opportunities which result in either better efficiency or improved</p>

	or improve engineering systems and processes (materials or methodologies).	service or product quality and performance. Best practice is shared and implemented.
Client Relationship	Develop relationships with client representatives, anticipating and resolving issues, and ensuring effective customer and client service.	Issues are anticipated and resolved, and conflict is avoided.
Financial Forecasting	Work with the contract team on estimates for financial forecasting of work programmes	Quantity estimating is accurate and financial risk identified and minimised. Both risks and opportunities identified to support asset outcomes.

Process

Results Area	Activities	Expected Outcome
Integrated Maintenance Management System (IMMS) Delivery	Delivery of all Asset Engineering tasks identified in the IMMS.	That outputs from processes, procedures or work instructions are completed within the required timeframes and to the required quality. Network specific Maintenance Management Plan is maintained and improved and well understood by the contract team.
Data Analysis and Failure Mode Investigation	<p>Data Analysis: Investigate and analyse asset condition, performance, and maintenance data to identify trends, anomalies, and opportunities for optimisation. Provide clear, actionable insights that support planning, investment, and operational decisions.</p> <p>Failure Mode Analysis (FMA): Undertake Failure Mode Analysis as required to identify the root causes of asset failures. Ensure that all FMA activities follow the established procedure, with findings documented in a clear and structured format and communicated to design teams.</p> <p>Evidence-Based Reporting: Ensure that all analysis outputs meet required standards in terms of content, accuracy, and presentation. Deliverables must contribute meaningfully to asset management plans, renewal strategies, and treatment selection.</p> <p>Root Cause Identification and Treatment Selection: Where FMA is triggered, apply systematic problem-solving techniques to determine the root cause of failure. Recommend appropriate treatment options or</p>	<p>Deliverables meet required output in content and presentation and contribute to providing required evidence for asset management plans.</p> <p>Where FMA is triggered, then the procedure is followed to identify root cause of problems and appropriate treatment selection / solutions identified.</p> <p>Analysis outputs are accurate, well-presented, and contribute directly to asset plans and treatment strategies.</p> <p>Solutions are practical, budget-aligned, and aimed at improving asset performance and reliability.</p>

	solutions to prevent recurrence and improve asset performance that is aligned with budgets.	
Forward Works planning and Asset Modelling	<p>To support the Asset Manager in the development of optimised, long term asset renewals and maintenance programmes that ensure the delivery of value for money, sustainable infrastructure services across the network.</p> <p>Carry out pavement modelling and analysis with the help of Senior Asset strategy analyst to assess the current and future conditions of pavement in the network</p> <p>Field validates the appropriateness of analysis and modelling outputs.</p>	<p>Timely forward works programmes (Renewals) for all major asset types are developed in accordance with IMMS client expectations and other long term infrastructure goals</p> <p>Identification and recommendation of long-term solutions that maintain or enhance service levels. Solutions are evaluated for lifecycle cost, environmental impact, risk and resilience.</p> <p>Utilize output data to assess and validate renewal priorities through a range of prioritization techniques, supporting informed and strategic investment decisions.</p> <p>Facilitate workshops and conduct site visits to engage stakeholders, ensuring alignment with the 'right place, right treatment, right time' approach.</p>
Tactical Asset Management Planning	<p>Support to the development of Activity Management Plan to establish investment proposals to meet customer and technical levels of service.</p> <p>Produce engineering and economic justifications for annual programmes that demonstrate value for money and alignment with strategic objectives.</p>	<p>Conduct periodic site inspections and field validations to assess asset condition and performance.</p> <p>Use field data to inform and support National Land Transport Programme (NLTP) funding applications.</p> <p>Network problems are clearly identified and appropriate (optimised to road classification) management strategies selected.</p> <p>That all sites identified for renewal are justified in both engineering and economic contexts (NPVs) with accompanying reports that meets audit and funding requirements</p>
Renewals Treatment Selection and performance monitoring	Produce appropriate treatment selections for all assets within contract scope to ensure value for money results are achieved using fit for purpose solutions meeting least whole of life expectations.	Effective treatments selected to address root cause, limit performance risk, and Downer risk, within annual plan budgets and in compliance with the IMMS.

	Monitor renewals performance to confirm appropriate treatment selection and learn from poor performance.	Renewals performance post construction is clearly understood to identify rework and improvements to both asset management and design and construction practices to ensure continuous improvement. Support the Engineering and delivery team with FMA to provide cost effective remedies and prevent future under performance.
Maintenance Intervention Strategies (MIS)	Monitor network performance against assigned Maintenance Intervention Strategies to ensuring renewals investment plans are optimised.	Monitoring confirms appropriate strategy for road sections. Timely and effective maintenance treatments are carried out without unnecessary repairs being completed. Investigation of identified sections of networks and review appropriateness of strategies selected.
Routine Maintenance Programmes	Lead the implementation of the annual maintenance programme in collaboration with the delivery team, ensuring the development and continuous refinement of a 3-month rolling schedule, while systematically monitoring performance against annual targets and initiating corrective actions as required Undertake Failure Mode Analysis to ensure root cause of recurring defects / problem sections is being addressed and maintenance quality and reputation is enhanced.	Maintenance activities are aligned with Maintenance Intervention Strategy (MIS) and customer requirements. 3MRP (3-month rolling programme) remains current and responsive to network needs. That maintenance treatments are being selected to address root cause of failure with less than the contract critical success factor (CSF) for rework on maintenance repairs. Enhanced understanding of network vulnerabilities.

Relationships

Functional relationships with:

- Client's Representative
- Maintenance Manager
- Supervisors
- Inspectors
- Field staff
- Principal Asset Engineer
- Asset Information Manager
- Principal Asset Manager
- Principal Strategy Engineer

Qualifications and Experience

- Tertiary qualification in Civil Engineering (or equivalent)
- Proven industry experience and knowledge

- Effective communication skills and ability to effectively communicate complex technical issues in a clear and rigorous manner to maximise impact
- Proven ability to manage multifaceted supplier/service provider relationships and develop effective working relationships
- Passion, drive and enthusiasm and highly self-motivated to drive business results
- Sound commercial understanding and acumen
- Role modelling the Downer values of Excellence, Collaboration, Courage, and Integrity.
- Ability to conduct some travel.

Delegations

Delegations are as defined in the Company's Standard Procedures Manual.