

JOB DESCRIPTION

Job Title	Principal Engineer – Highway Design		
Directorate	Infrastructure & Transport		
Reporting to	Service Manager – Engineering Design		
Grade	9		
Evaluation ref:	AG0572	Job ref:	Family
Role purpose			
Manages and oversees the design process of Somerset Council led highway improvement projects that can range from minor improvement schemes (below £1,000,000) to the components of major multi-million-pound highway projects.			
Responsibilities			
<ul style="list-style-type: none"> • Manages and oversees and inputs to the design process of Somerset Council led highway improvement projects that can range from minor improvement schemes (below £1,000,000) to the components of major multi-million-pound highway improvement projects. • Acts as lead designer for a wide range of highway improvement projects commissioned to the service (including Safety, Active Travel, Bus Infrastructure, Rural Mobility, Electric Vehicle projects and major multi-million-pound highway projects) using a combination of professional and technical knowledge and interpersonal skills, including consultation and negotiation. • Performs the role of a Principal Designer under the Construction Design and Management Regulations 2015 and all associated duties, including projects designed by team members. Duties include <ul style="list-style-type: none"> ○ the planning, management, monitoring and coordination of health and safety in the pre-construction phase. ○ the preparation of relevant information to other duty holders under the Regulations. ○ the provision of relevant information to the principal contractor to help them plan, manage, monitor and coordinate health and safety in the construction phase. • Undertakes feasibility appraisal, including desktop analysis of environmental constraints and produces environmental appraisal report (e.g. flood risk / water management areas, historic environment, biodiversity / ecology, noise / air quality, other factors as appropriate e.g. sensitive receptors). Identifies and sifts options against appraisal methodology and produces options report. Commissions and draws in any specialist inputs such as traffic modelling. Supports the calculation of cost estimates. • Undertakes feasibility design, commissioning relevant inputs including topographical survey, utility enquiries, and ground investigations in order to conclude preliminary layout, high level drainage design, and identification of any land requirements. Identifies any network changes required and associated legal mechanisms. 			

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- Undertakes outline and detailed design of selected option(s), commissioning and drawing in any specialist inputs - including horizontal/ Vertical Alignment, Pavement/ Footway construction, Drainage, Structures, Street Lighting, Signals, Traffic Signs, Traffic Regulation Orders, Landscaping, Statutory Undertaker Works, Road Restraint Systems, Geotechnical Elements / Earthworks. Produces Bills of Quantities.
- Leads in Early Contractor Involvement throughout scheme design to take on board opportunities for value engineering, innovation and buildability
- Commissions Road Safety Audits at relevant stages of scheme design and delivery. Reviews the outputs/ recommendations of these audits and formulates a response and report in collaboration with the Project Sponsor.
- Respond to Design Queries during construction and any Requests for Information (RFIs), maintaining an up-to-date drawing register, and ensuring the production/ compilation of As Built drawings. Ensures production of Health & Safety Plan/ File.
- Undertakes a technical audit role on complex third-party designs, being responsible for the review of highway design disciplines including horizontal and vertical alignment.
- Provides advice, guidance and support to Directors, Senior Officers, Line Managers and other officers, external organisations including external parties, on a variety of highway issues including highway design standards, current highway legislation and legal agreements, environmental impacts and political awareness. Ensure that the statutory requirements of the Council as the highway authority are met.
- Identifies and quantifies project risks, and ensures arrangements are put in place for their management. In particular, supports the production and maintenance of scheme Quantified Risk Assessments.
- Works in collaboration with others to identify the preferred procurement strategy/route for scheme delivery and develops the Specification and Works Information/Scope in the required format. Also supports the development and maintenance of the Council's specification for highway works.
- Supports the pre-construction phase of projects, working in collaboration with others to identify the preferred procurement strategy/route for scheme delivery and developing the Specification and Works Information/Scope in the required format. Prepares any necessary legal orders.
- Commissions highway design services through call-off contracts, as necessary. Monitors performance and uses contract management mechanisms as necessary to ensure that the work supplied meets time, cost and quality objectives. Integrates the inputs from these commissions into scheme designs.
- Line manages a team of highway design engineers and technicians, providing leadership, advice and guidance on highway design matters throughout the scheme lifecycle, and discharges the role of Principal Designer under the Construction Design and Management Regulations 2015 in reviewing design outputs at key stages. Directs and delegates work as required to ensure that scheme programme milestones are achieved and that the designs comply with national and local design guidance and standards.

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- Supports highway design engineers and technicians in career development, creating formal training and development plans linked to professional accreditation, and assessing progress in accordance with defined standards. May involve mentoring of individuals.
- Leads on key aspects of projects which may have a significant impact on specific working practices of the Engineering Design service. This would include policy development or other activities which contribute to development and delivery of the Service Plan, with a view to then sharing any developments as appropriate across Highways and Transport Services, the wider Council and other Organisations.
- Undertake investigations into complex contractual/political/technical issues, advising Senior Officers on the outcome/implications and of any action to be taken. Provide detailed information as required to enable Senior Officers to handle complex complaints or ombudsman enquiries in a professional manner which protects and reflects the standards of the Council.

Impact

Contacts & Relationships

1. Within the Council, there are frequent meetings with staff across Infrastructure and Transport, the purpose of which will be to receive instruction, exchange advice and information, provide guidance, attend and participate in briefing meetings and working groups. May also be required to attend meetings with team members from outside the Directorate.
2. A wide range of organisations, including those with whom the Council contracts, other local authorities, Government Departments at National and Regional level, Professional Associations, as well as private organisations. The purpose of these contacts can be to research, provide, obtain and analyse information or to discuss and undertake negotiations/ discussions on various highway issues, and contribute/influence national/local policies and highway legislation.
3. Provides advice, guidance and support to Directors, Strategic and Service Managers, other Senior Managers, internal staff and Elected Members. Liaises closely with Managers and other professionals when formulating and developing policy initiatives and during highway design development. Provides support and guidance to subordinates.
4. Consultants and specialist advisers to coordinate and incorporate inputs involved in the development of highway scheme designs, ensuring that the duties of Principal Designer under the Construction Design and Management Regulations 2015 are discharged.
5. Contractors/ sub-contractors to resolve design queries and Requests for Information (RFIs).
6. Professional and technical staff within the Council in respect of matters associated with highway design to assist in ensuring effective design and delivery of highway schemes.
7. Programme and Project Managers in respect of matters associated with engineering design to support project delivery.

Resources

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1. Line Management of Team. Plan, direct and manage the Team's workload. Monitor and manage the quality of output against agreed standards and performance targets. Provide training, advice, induction and appraisal. Undertake recruitment and selection of staff.
2. Manage approved budgets, keeping within pre-determined allocations or advising management of changes and requesting change, and supporting budget setting.
3. Develop and check Bills of Quantities for prospective highway improvement schemes.
4. Responsible for requisitioning and approving goods/services up to limits defined within Somerset Council's Scheme of Delegation appropriate to grade.
5. Act as mentor, allocating and checking work which relate to the postholder's areas of responsibility.
6. Provides cover for technical and project issues in the absence of the Service Manager.
7. Will lead inter-service, multi-disciplinary collaborative working. Will manage other professional engineering officers, support staff and staff within and external to the Council.
8. Production and approval of Task Orders (both for work commissioned through Construction and Engineering Consultancy contracts), maintaining an overview of work delivered, and supporting others in this activity.

	Essential	Desirable	
Knowledge			
Knowledge and Understanding of Engineering: <ul style="list-style-type: none"> Maintain and extend a sound theoretical approach in enabling the introduction and exploitation of new and advancing technology. Engage in the creation and/or introduction of new, advancing or improved techniques and technology. 	X		
Technical and Practical Application of Engineering: <ul style="list-style-type: none"> Take an active role in the identification and definition of requirements, challenges, risks, and opportunities and undertake appropriate investigation and action. Undertake the design and development of engineering solutions and evaluate their effectiveness in the context of the whole project life cycle. 	X		

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<ul style="list-style-type: none"> Undertake the implementation of engineering solutions and evaluate their effectiveness in the context of the whole project life cycle. 			
Management and Leadership: <ul style="list-style-type: none"> Manage (organise, direct and control), programme or schedule, tasks and resources. Lead or influence teams / technical specialisms, understanding the limits of their skills and knowledge. Develop others to meet changing technical and managerial needs. Demonstrate continuous quality improvement and promote best practice. 	X		
Independent Judgement and Responsibility: <ul style="list-style-type: none"> Identify the limits of a team's skill and knowledge. Exercise sound holistic independent judgement and take responsibility. 	X		
Commercial Ability: <ul style="list-style-type: none"> Be aware of and contribute to management, preparation and control of costs/budgets of engineering tasks or projects Demonstrate sound judgement on statutory, contractual and commercial issues in relation to own area of responsibility. 	X		
Health, Safety and Welfare: <ul style="list-style-type: none"> Demonstrate leadership by promoting good practice and improvements in health, safety and welfare. 	X		
Sustainable Development: <ul style="list-style-type: none"> Take a professional and responsible role in improvements that support sustainable development and reduce resource demand, set in the context of a whole project life cycle. 	X		
Professional Commitment: <ul style="list-style-type: none"> Maintain competence in their own area of practice, through the planning and undertaking of appropriate and relevant Continuing Professional Development (CPD). Demonstration of appropriate professional standards, recognising obligations to society, the profession and the environment 	X		

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<ul style="list-style-type: none"> Understand the ethical issues that may arise in their role and carry out their responsibilities in an ethical manner 			
Experience			
<p>Extensive and proven experience of:</p> <ul style="list-style-type: none"> technical highway design, and use of relevant standards, including DMRB, TSRGD, TSM and Manual for Streets application of Construction Design and Management Regulations 2015 scheme feasibility assessment, including report production and cost estimation contract documentation production project management general contract management staff management and supervision 	X		
<ul style="list-style-type: none"> Experience of acting as Principal Designer under Construction Design and Management Regulations 2015 Experience of NEC3 / NEC4 Engineering contracts Experience in financial administration Awareness of current issues impacting upon local government, including need for good management of public assets and provision of value for money. 		X	
Qualifications / Registrations / Certifications			
Level 6 qualified Engineering or Transport related qualification or has an equivalent professional accreditation.	X		
Membership of a relevant professional institution or organisation (i.e. ICE, IHE etc).		X	
Working towards Level 7 qualification or above.		X	
Working Conditions			
Mainly desk based, with some site visits.			
Working Arrangements			
Somerset Council's dynamic Working Strategy will be applied to this position.			

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Corporate Responsibilities

Ensure compliance with all relevant legislation, organisational policy, and professional codes of conduct to uphold standards of best practice.

Deliver the aims of the council's equality, diversity and inclusion policies; health, safety and wellbeing of self and others; and Organisational values in everything you do, ensuring team members are also aware of their responsibilities and maintaining their understanding that Equality and Diversity practice covers both interaction with staff, service users and communities and includes challenging discrimination and promoting equality of opportunity for all.

Date: April 2025