

Job Description

For Engineer Positions

This form is used to provide a complete description of the specific job (or role) and defines the skills, knowledge and abilities required to undertake the specific and generic role profile.

Section A: Specific Role Profile

The specific role profile provides key information relating to the salary and working conditions e.g. location of a job, along with the current focus of the job role and a brief description of the main duties.

Role Details

Job Title:	Senior Engineer (Highways-S278)	JEID	EN005
Salary Grade:	Grade N		
Team:	Highways - S278 Team		
Service Area:	Communities Directorate, Engineering Design Services		
Primary Location:	Shire Hall, Warwick		
Political Restriction	This position is not politically restricted.		
Responsible to:	Team Manager (Highways-S278)		
Responsible for:	Junior Technical Staff		

Role Purpose

Engineering Design Services (EDS) is a civil/structural/traffic engineering group working in the fields of highways, bridges, building structures, agricultural engineering and traffic control & information systems. We provide programme & project management, design, design review, procurement, construction and contract management and maintenance/asset management services to a variety of internal and external customers including developers. We are also engaged in some shared service provision with neighbouring local authorities.

The Highways-S278 Team is responsible for the technical review of new highway and highway improvements schemes often working with a range of engineering disciplines.

The Team comprises new and experienced engineers dedicated to project delivery at both the technical review and construction phase. Its aim is to improve safety, tackle congestion and enhance travel opportunities in the county. Projects include new link roads, junction improvements and cycle schemes.

The Team operates a matrix working system with engineers working on projects for different team managers.

The Senior Engineer will lead on the delivery of minor and major highway engineering projects (more than one at a time) which may involve other organisations, both internal and external. This will include:

- Implementing prescribed project governance arrangements;
- Monitoring and managing costs to ensure effective project control;
- Ensuring the effective management of contracts (construction contracts and professional services contracts); and
- Resolving issues and problems during the feasibility, detailed design, contract procurement and construction phases of a project.

Role Responsibilities

To undertake the technical approval of developer submissions under Section 278 and Section 38 Agreements for both minor and major highway engineering projects and to procure construction contracts for the same.

To assist in the preparation of Section 278 and Section 38 Agreements including the preparation of fee estimates and works cost estimates.

To make applications for Traffic Regulation Orders (TRO's) and Streetworks permits and manage the same.

To make applications for road safety audits and manage the same.

To assist in the resourcing of site supervision staff.

To ensure contracts are prepared to protect the interests of Warwickshire County Council as highway authority.

To make applications for Departure from Standards and manage the same.

To balance engineering, economic and environmental aspects using professional judgement, to ensure objectives are delivered to appropriate standards.

To coordinate the design input of other specialist teams.

To have an in depth knowledge of the current Design Manual for Roads and Bridges and the current Model Contract Document for Highway Works (especially the Specification for Highway Works) insofar as these documents relate to highway engineering.

To oversee the construction phase of highway engineering projects and to administer NEC3 or NEC4 Engineering and Construction Contracts (ECCs) for the same by performing the role of the NEC Supervisor and/or NEC Project Manager.

To monitor changes in relevant national technical standards and guidance and manage the effect of those changes on design principles and processes.

To obtain and respond to feedback from the public and elected members, implement appropriate changes and/or redefine objectives to achieve a consistent and improved service.

To undertake and ensure the effective management of complex and wide ranging consultations on highway projects (including those which relate to contentious and politically sensitive matters) and to act as the authority's lead representative at public and other relevant meetings.

To work with internal and external stakeholders, Statutory Undertakers and other Statutory Bodies to achieve the best outcomes where there is a conflict of interest.

To deal with enquiries and/or complaints from MPs, elected members, developers, agents, planning officers, government agencies and members of the public and to act as the authority's representative by promoting and/or defending the interests of the authority at formal hearings and inquiries.

To be responsible for monitoring and managing budgets for design fees and works costs.

To ensure compliance with legislative requirements for Health and Safety (eg. CDM regulations), Quality control (eg. Quality Assurance), Environmental protection (eg. Environment Agency), Traffic Management and Flood risk management.

Section B: Generic Role Profile

The generic role profile provides a list of the main tasks that cover the broad range of duties and responsibilities performed at this level for the job role. An employee may not be undertaking all of these at any one time, but they could be expected to do so under their contract of employment.

Generic Role Details

Job Role:	Engineer – Level 5
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Main Tasks

- To lead and manage the delivery of major projects operations and/or maintenance regimes which may involve other agencies including establishing partnerships, business case development and project governance arrangements, ensuring the effective management of contracts and resolution of major issues and problems which may impact upon delivery of objectives.
- To be responsible for undertaking substantial technical or policy/service innovation and/or to be responsible for undertaking engineering design for large major complex engineering works.
- To be responsible for monitoring and manage budgets for own projects and if appropriate to the service area acting as a 'supervisor with delegated powers' under the Engineering and Construction contract for large construction works.
- To monitor changes in relevant national technical standards/guidelines and obtain and respond to feedback on service from the public and elected members in order to redefine service and working practices and to take a lead working with operational managers to achieve a consistent and improving service.
- To play a substantial role in the development of policy and strategy by interpreting local service needs and regional and national developments, codes of practice and legislative change, working alongside a broad range of internal contacts and external organisations.
- To be responsible for developing and managing a capital programme over a period of several years (e.g. the implementation of the LTP), including identifying sources of funding, programme development and the co-ordination of resources to deliver objectives within budget.
- To establish, control and monitor appropriate performance management and continuous improvement regimes including the identification of meaningful indicators of service performance, which can be compared by benchmarking with other similar external organisations.
- To assist the Team Leader with the review of efficiency and effectiveness leading to improved business improvement and performance within the postholder's area of service.
- To be responsible for the development of a programme of review and replacement of relevant systems and equipment to meet current and future service needs, including a direct responsibility for ensuring effective and robust procurement processes are implemented in order to achieve maximum value for money.
- To ensure the effective management of complex and wide ranging consultations including those which relate to contentious and politically sensitive matters, acting as the Councils lead representative at public and other relevant meetings.
- To deal with enquiries and complaints from MPs elected members, developers, agents, planning officers, government agencies and members of the public and act as the Council's representative, and promoting / defending proposals and the interests of the Council at formal hearings and inquiries in respect of relevant matters.
- To act in an executive management role with regard to the legislative requirements of Health, Safety, Quality and Environmental responsibilities, e.g. QA, CDM, EPA, TMA etc. and ensure that

Section B: Person Specification

The person specification provides a list of essential and desirable criteria (skills and competencies) that a candidate should have in order to perform the job.

Each of the criteria listed below will be measured through; the application form (A), a test / exercise (T), an interview (I), a presentation (P) or documentation (D).

Essential Criteria

Assessed By:

Substantial post professional experience working within a relevant discipline and/or significant experience at a senior level of partnership working and diverse project management	A,I
The ability to demonstrate a high degree of complex problem solving skills	A, I
The ability to communicate complicated and contentious information with varied audiences in person and/or writing	A,I,P
Have experience of using ICT including relevant Engineering/Transport Planning systems e.g. CAD	A, I
The ability to work within broad practice or guidelines using managerial discretion over a broad area of activity	A, I
The ability to work under a very high degree of pressure, including meeting unpredictable deadlines and dealing with conflicting demands	A, I
Ability to provide day to day supervision to less-experienced members of the team including delegation and checking of work and provision of technical guidance, also covering for and providing technical support to the Team Leader as required	A, I
Experience of monitoring and managing and being accountable for large project budgets	A, I,P
Experience of leading on the development of policy/service practice within the relevant service	A, I
The ability to pull together plans/develop solutions through the introduction of new/original thinking	A, I,P
The ability to persuade others to adopt a course of action which is not necessarily their preferred approach	A,I,P

Desirable Criteria

Assessed By:

A thorough understanding of the current Construction (Design and Management) Regulations (including the responsibilities of the duty holders) and the ability to perform the role of the Principal Designer.	A, I
A thorough understanding of the NEC3 or NEC4 Engineering and Construction Contract conditions and requirements and a general understanding of the other contracts in the NEC3/NEC4 suite.	A, I
A good working knowledge of the 'Microsoft Office' suite of software applications and sufficient understanding of AutoCAD Civil 3D modelling and AutoCAD 2D	A, I

drafting applications to interpret outputs and supervise users.	
A good working knowledge of the planning process, WinDes/Microdrain software application and sustainable drainage systems (SUDS).	A, I
Experience in dealing with Developers, Contractors, Consulting Engineers and Management Consultants.	A, I
Chartered or Incorporated Engineer status recognised by the Engineering Council (or ability to demonstrate competences at these professional levels).	A,I,D

Section C: Working Conditions

The working conditions relate to those non-contractual elements of the job that may impact on the holder of the position, as well as those workplace-based responsibilities that are part of this job. These are not contractual but provide a guide to the working conditions and the potential hazards and risks that may be faced.

Health & Safety at Work

To take responsibility for your own health, safety and wellbeing, and undertake health and safety duties and responsibilities for your role as specified within Warwickshire County Councils Health and Safety Policy, and all other relevant health and safety policies, arrangements, procedures, systems of work as specified for the post/ role.

Potential Hazards & Risks

The potential significant hazard(s) and risk(s) for this job are identified below (those ticked). The purpose of recording this information on the job description is so that the health status of the potential and actual post-holders can be assessed with regard to the significant hazards and risks. These hazards and risks should be based on the appropriate activity, process and/or operation risk assessment whereby all of the significant risks are identified, recorded and appropriately controlled. The list below is therefore not an exhaustive list because it is the risk assessment that details all significant risks that could arise out of or in connection with the work activity, but any others will be identified in the 'other' section.

<input type="checkbox"/> Provision of personal care on a regular basis	<input type="checkbox"/> Driving HGV or LGV for work
<input type="checkbox"/> Regular manual handling (which includes assisting, manoeuvring, pushing and pulling) of people (including pupils) or objects	<input type="checkbox"/> Any other frequent driving or prolonged driving at work activities (e.g. long journeys driving own private vehicle or WCC vehicle for work purposes)
<input type="checkbox"/> Working at height/ using ladders on a regular/ repetitive basis	<input checked="" type="checkbox"/> Restricted postural change – prolonged sitting
<input type="checkbox"/> Lone working on a regular basis	<input type="checkbox"/> Restricted postural change – prolonged standing
<input checked="" type="checkbox"/> Night work	<input type="checkbox"/> Regular/repetitive bending/ squatting/ kneeling/crouching
<input type="checkbox"/> Rotating shift work	<input type="checkbox"/> Manual cleaning/ domestic duties
<input checked="" type="checkbox"/> Working on/ or near a road	<input type="checkbox"/> Regular work outdoors
<input checked="" type="checkbox"/> Significant use of computers (display screen equipment)	<input type="checkbox"/> Work with vulnerable children or vulnerable adults
<input type="checkbox"/> Undertaking repetitive tasks	<input type="checkbox"/> Working with challenging behaviours
<input type="checkbox"/> Continual telephone use (call centres)	<input type="checkbox"/> Regular work with skin irritants/ allergens

<input checked="" type="checkbox"/> Work requiring hearing protection (exposure to noise above action levels)	<input type="checkbox"/> Regular work with respiratory irritants/ allergens (exposure to dust, fumes, chemicals, fibres)
<input type="checkbox"/> Work requiring respirators or masks	<input type="checkbox"/> Work with vibrating tools/ machinery
<input type="checkbox"/> Work involving food handling	<input type="checkbox"/> Work with waste, refuse
<input type="checkbox"/> Potential exposure to blood or bodily fluids	<input checked="" type="checkbox"/> Face-to-face contact with members of the public
<input checked="" type="checkbox"/> Other (please specify):	Working near watercourses, on civil engineering construction sites and in locations where discarded/used drug paraphernalia may be present. Working in environments which have a risk of exposure to Weil's disease