

Job Title: Bridges & Structures Asset Engineer	Role Profile Number: OPH78
Grade: Q	Date Prepared: July 2021
Directorate/Group: Economy & Development	Reporting to: Bridges & Structures Manager
Structure Chart attached:	Yes

Job Purpose

To support the delivery of the Council’s responsibilities as Highways Authority; The management of highway structures, corporate bridge structure assets and MSCPs; The creation & management of forward programmes of capital works for structure assets; The management, design and approval of major maintenance/ improvement work annual capital and revenue programmes; To assist in the technical approval of designs for highway structure assets associated with planning applications and development.

Key Accountabilities

The post-holder will take personal responsibility and demonstrate competence in the following duties:

Asset Management

- To create and manage forward programmes of capital maintenance works for highway structures in accordance with the requirements of the Council’s Asset Management Plan; to apply a risk based and whole life approach to optimise the management of structure assets within available funding including the development & management of the Borough’s scheme identification and prioritisation systems and completion of site assessments.
- Management & procurement of Highway structure, Corporate bridge structure and MSCP routine condition surveys including participation in inspections and reporting and auditing surveyed data for quality and completeness.
- Prepare scheme estimates for proposed programmes of work.
- Management & operation of Infrastructure Asset Management software to ensure that the inventory and condition of all new and modified structure assets is recorded and details can be shared and reported upon as required.
- Develop and maintain asset registers to record and share asset details and condition with other Council officers; risk authorities and stakeholders as required.
- Liaise with outside Agencies and neighbouring authorities including representing the Council at regional and National forums to discuss matters relating to highway structures assets.
- Assist the Bridges & Structures manager and Highway Asset Manager to develop, consult on,

implement, manage and review strategies, policies and procedures for highway structure assets, including taking a lead role in the development & management of the Borough's Risk based bridge inspection Plan.

- Create and monitor performance indicators to manage asset and service performance, facilitate bench marking and promote continuous improvement.
- To provide data relating to highway structures Asset Management Performance Information to central government, national and local benchmarking etc. such as Highway Network Asset valuation (WGA).
- Develop and implement asset management and maintenance procedures to comply with emerging guidance and best practice including the Code of Practice 'Well Managed Highways' and HMEP Asset Management Guidance.
- Participate in and contribute to the development of the Council's highway assets management processes and practices so that highway asset management becomes more visible and understood within the Council.
- Contribute, by taking a high level of personal responsibility, to the development and maintenance of the Service Area as an efficient, effective and economic service.
- Ensure that all maintenance practices and schedules are in keeping with good practice and the best interest of the Council
- To provide advice and guidance to elected members, the Police, Parish Councils, Members of the Public and other recognised groups on queries relating to Bridges & Structures matters. Prepare reports and attend such cabinet meetings, committees, working parties and public meetings as required to fulfil the duties of the post.
- Liaise with other statutory bodies, e.g. Network Rail, Highways England, Utility providers to ensure interfaces between SBC and third party bridge assets are appropriately managed.
- Monitor and review day to day activities such as Abnormal Load movements and Utility Undertakers proposals on Streets of Special Engineering Difficulty.
- To engage and provide training, mentoring and development of staff on the Asset Management system and Central Management systems.

Design, Construction and Maintenance

- Sponsor and manage the Borough's annual capital improvement work programmes; to include undertaking the technical review, approval and whole life cost implications of all proposed scheme designs.
- To assist in the management and co-ordination of a robust system of budget control for the Borough's annual Structures Capital and Revenue Maintenance Works (nominal value £1million) ensuring compliance with legislation, Council standing orders and financial regulations
- Prepare grant applications or bids to obtain funding in support of asset maintenance or improvement schemes.
- Prepare and present business cases and project summary reports to Project Boards to seek approval to spend funding.
- To prepare reports to committee relating to highway structures maintenance and provision and to provide information to working parties, commissions and project teams as appropriate.
- Appointing; directing and co-ordinating the activities of consultants; contractors and operational staff

undertaking surveys; studies; designs; improvement or maintenance works.

- Provide engineering design advice to other departments within the Council and developers on matters relating to highway structure assets.
- Provide Structural Engineering input into Bridge and MSCP Maintenance schemes. Take primarily responsible for progressing individual schemes from conception to completion.
- Preparing designs; construction drawings; specifications; schedules and bills of quantities as required for maintenance and improvement schemes including producing Pre-tender Health & Safety Plans and Risk Assessments and carrying out the duties of Principal Designer or Designer where required by the CDM Regulations.
- Reviewing tender submissions, Contract administration and supervision of works.
- Ensuring works are undertaken in full compliance with relevant legislation and policies relating to conservation, the environment and highway works including preparing and reviewing risk assessments, method statements and safe systems of work.
- Review and audit site records and undertake visual site inspections upon the completion of works where required and ensure that all new or improved highway structure assets are constructed in accordance with the approved designs and are compliant with national legislation, national standards and Council Policy.
- To oversee orders issued for works and monitor the standard of work done against specifications and the regular payment of accounts.

Planning and Development

- Provision of technical support to the highway development team on planning applications and developments; including advice on asset management requirements and design standards, and interpretation of technical information supplied to evidence the design of highway structure assets.
- Provision of advice on technical submissions for highway structures assets associated with Sections 38, 278 Highways Act 1980 and Section 106 agreements under the Town and Country Planning Act
- Undertaking detailed reviews of AIPs and Technical Approval submissions for structures ensuring that designs are compliant with national legislation, national standards and Council Policy
- Carrying out detailed audits of designs assessed or approved by others.
- Review Health and Safety files and site records to ensure that appropriate information has been provided for new or improved highway structure assets to be adopted and maintained by the authority,
- Undertake inspections of new Adoptable highway structures during and post construction to ensure they comply with Technical Approval requirements and are compliant with national legislation, National Standards and Council Policy.
- Give technical advice and formulate designs within the designated role as part of a project team for major improvements.

Supplementary Accountabilities

- Taking reasonable care so as not to endanger yourself or other persons whilst at work in accordance with the provisions of the Health and Safety at Work etc. Act 1974 and the Management of Health and Safety at Work regulations 1999

- Co-operating with the Council to enable it to comply with its statutory duties for health and safety including working in accordance with training or instructions given, make proper use of any personal protective equipment provided and inform your line manager of any hazardous situations or risks of which you are aware.
- Undertake responsibilities relating to your position as detailed within the Directorate Health and Safety Policy.
- Contribute to measures designed to improve corporate and departmental efficiency.
- Comply with Data Protection and Freedom of Information regulations and take reasonable care to ensure that personal data is only recorded, transferred and disclosed in accordance with Council procedures.
- To participate in and contribute to the development and implementation of initiatives and standards for the effective and efficient services within the Department to provide continuous improvement and effective delivery of services.
- Where required, to participate in the recruitment, selection & training of staff
- Ensure compliance with Standing Orders, Financial regulations and all relevant legislation in respect of capital maintenance activities.
- To respond to requests and queries from Council Members and members of the public, in a helpful and constructive way.
- Establish good communication in relation to senior staff and management.
- Ensure that personal and individual team members training needs are identified and discussed with the line manager.
- To oversee orders issued for major works and monitor the standard of work done against specifications and the regular payment of accounts.

Knowledge & Experience

Candidates must have substantial knowledge and experience in the following areas of business and will be required to provide evidence of this:

Extensive post qualification knowledge and experience to include:

- Experience in the design, assessment and management of Highway structures and MSCPs, specifically including advising on the development of policies and working practices in this area.
- Experience of highways development control, assessing Highway structure designs submitted in support of section 38, 278 and 106 agreements.
- Have knowledge and understanding of the Highways Agency Inspection Manual for Highway Structures.
- Have knowledge and understanding of the ICE Recommendations for the Inspection, Maintenance and management of Car Park Structures.
- Knowledge of bridge maintenance and MSCP maintenance strategies, policies and procedures, relevant legislation, regulations, codes of practice and materials specification & testing.
- Construction site experience, including knowledge of highway structure & MSCP construction.
- Knowledge of the key functions of a local highway authority.
- Knowledge of relevant highway structures asset management systems, and central management systems.
- Knowledge of Standards, Codes of Practice and guidance relating to Highway structures Design,

Maintenance & Management.

- Working knowledge of the relevant parts of the British Standards; Design Manual for Roads and Bridges and the Manual of Contract Documents for Highway Works.
- Experience of Inspections to the BCI system.
- Good working knowledge of health & safety legislation including the CDM regulations.
- Experience of NEC3 forms of contract
- Highway maintenance techniques.
- New Roads and Streetworks Legislation.
- Highways Act 1980 legislation.
- Contract documentation preparation and implementation.
- Budgetary control
- Risk assessment and management.
- Ability to manipulate databases, spreadsheets, use and manipulation of Microsoft Office applications

Qualifications

Essential

- Level 6 Qualification in Civil or Structural Engineering or similar relevant subject or equivalent extensive compensatory experience evidenced by a C Eng / EngTech qualification or similar.
- The job requires continual professional development to ensure an awareness of the development of new professional and industry practices and to maintain competence.
- Ability to make site visits and attend meetings across the Borough.

Desirable

- Membership of ICE or other relevant professional institution
- Chartered or Incorporated Engineer accredited by ICE or other relevant professional institution.
- CSCS Card holder in relevant category for post duties.
- Streetworks Accreditation
- Ability to drive

Decision Making

- The post-holder will need to be able to prioritise their own workload to react to incidents and events in challenging circumstances. Decisions may have to be taken rapidly and can be of major direct impact to public and employee safety; road network availability; usage; congestion and budget.
- Decisions on a broad range of complex issues are required on a daily basis, including the application of engineering skill and judgement in the proposal and evaluation of solutions to challenging engineering problems affecting the whole-life cost; safety and performance of assets.

Creativity and Innovation

- The post holder is required to seek, through their own initiative and creativity, workable solutions to problems and produce innovative and creative ways of managing highway paved assets.
- The role requires continual professional development to ensure an awareness of the development of

new professional and industry practices and needs to apply this in an informed manner in order to support the Council’s overarching aims and objectives.

- The role requires creative thought and planning to respond to changing Council and National priorities.
- The need to be innovative and creative is important to drive continuous development and produce efficiencies and better ways of working.

<p><u>Job Scope</u></p> <p>Number and types of jobs managed</p> <ul style="list-style-type: none"> • Various – Appoint; direct and co-ordinate the activities of consultants; contractors and operational staff undertaking surveys; studies; designs; improvement or maintenance works. • Assist the Bridges and Structures Manager to mentor and train less experienced colleagues <p>Typical tasks supervised/allocated to others</p> <ul style="list-style-type: none"> • Delivery of the annual Revenue and capital maintenance programmes. • Delivery of structures condition surveys. • Site inspections, assessments and construction quality control inspections. • Liaison with customers and other officers within the Directorate /authority, including project managers. • Correspondence. • Assessing the implications of abnormal load movements. • Maintaining accurate record systems and the Bridge Management System. 	<p>Budget Holder</p> <p>Responsibility</p> <p>Asset Responsibility:</p>	<p>No</p> <ul style="list-style-type: none"> • Sponsor and manage delivery of Highway Structures maintenance programmes with a combined works value of circa £1 million/p.a. • Authorisation to place orders and approve payments of invoices to the value of £25,000 and £15,000 respectively. <p>In excess of 500 Highway and Non-Highway corporate bridge assets, with a gross replacement cost circa £120m+. MSCP Assets valued at approx. £50m</p>
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Contacts and Relationships

- The post holder communicates at a high level, both orally and in writing, in order to provide professional advice or exchange information with a wide range of contacts including members of the public, Elected Members, officers, developers, environment agency and external consultants on routine basis. They need to use tact and persuasion when interacting with outside parties regarding the impact of their works.
- Verbal communication is integral to this post and will involve constant communications with members of the team and will include 1 to 1 and team meetings and with individuals and groups external to the team.

Other Key Features of the role

- A mix of approximately 90% office based and 10% site work.
- The majority of site work is performed outside involving exposure to all weather conditions which may be in disagreeable and in unpleasant surroundings/conditions.
- The majority of site work will be undertaken on or adjacent to the public highway and construction sites being exposed to live traffic, and may involve working at height.
- Work requires physical effort regularly in awkward postures. For example, undertaking inspections in difficult or restrictive locations, lifting utility inspection covers and accessing sites over fences and uneven ground.
- Contact with the public may occasionally be confrontational.
- Occasional attendance at evening meetings may be required to liaise with Elected Members; Parish Councils and Community groups to fulfil the duties of the post.

Employee Signature:	Print Name:
Date:	
Line Managers Signature:	Print Name::
Date:	