

Highways and Transportation

Highway Asset Management Technician

Job Description and Person Specification

August 2026

Job Description

Job Title:	Highways Asset Management Technician
Department:	Neighbourhood and Environmental Services Department
Function:	Highways and Transportation
Team:	Highways Engineering and Flood Water Management
Post number:	EG0074 or 165512
Grade:	LBR10
Hours/weeks: <i>E.g. 36 hours/52.14 weeks</i>	36 Hours/52.14 weeks but required to work additional hours as the service demands or is required
Base location:	Lynton House / On Site (Council Wide Coverage)
Reports to: <i>Job title</i>	Principal Engineer – Highway Engineering
Responsible for: <i>Job titles of direct reports</i>	N/A
Role purpose and role dimensions: <i>Overview of the job</i>	Reporting to the Principal Engineer, Highway Engineering, the Highways Asset Management Technician is responsible for the maintenance, development, accuracy and management of the Council's highway asset records, mapping systems, and associated digital infrastructure databases. The post holder provides specialist technical expertise in the management of geospatial highway information, asset data collection, mapping systems, and digital record keeping to support the effective planning, maintenance and management of the borough's highway infrastructure. This includes maintaining accurate records of highway assets, street lighting, drainage assets, street developments, traffic schemes, highway adoptions and other infrastructure-related information. The post holder is responsible for ensuring highway asset information is accurately captured, updated, validated and maintained within the Council's asset management systems, including Confirm, MapBase, AutoCAD, MapInfo and related GIS platforms. The role supports asset management decision-making by providing technical information, spatial analysis, drawings, reports and asset intelligence to engineers, project managers, contractors and stakeholders. The post holder independently manages a range of highway asset data processes and technical mapping functions, ensuring information is accurate, up to date and compliant with corporate standards. This includes producing technical drawings, maintaining asset inventories, supporting highway adoption processes, undertaking asset analysis and providing specialist mapping services across the organisation. The role acts as the Council's lead technical resource for highway asset mapping and data management, supporting the delivery of highway maintenance, capital investment, traffic management and infrastructure improvement programmes. The post holder contributes to the development of asset management systems, data quality improvements and digital transformation initiatives, supporting evidence-based decision making and long-term asset planning across the highway network.
Key external contacts: <i>Organisations</i>	Utility Companies, Statutory Undertakers, Developers, Consultants, Contractors, Land Registry, Mapping Providers, Property Solicitors, Members of the Public and External Stakeholders.

Key internal contacts: <i>Job titles or groups of staff</i>	Head of Highways, Group Managers, Principal Engineers, Engineers, Highway Inspectors, Traffic Management Team, Development Control Team, Network Management Team, Street Lighting Team, Flood and Drainage Team, Legal Services, Customer Services and GIS Teams.
Financial dimensions: <i>Budgetary responsibility & amount. Equipment, cash, property etc. for which employee is responsible.</i>	- Responsible for maintaining asset information supporting highway maintenance and capital investment programmes exceeding £10 million in value. - Responsible for ensuring the accuracy of asset information used to support financial planning, asset valuation and investment decision making. - Responsible for protecting the Council from financial risk through the maintenance of accurate asset records and supporting highway claims investigations. - Responsible for managing specialist software, mapping systems and associated asset information resources. - Responsible for supporting statutory processes, property enquiries and highway adoption procedures through the provision of accurate asset information.
Key areas for decision making:	- Determining appropriate methods for capturing, recording and maintaining highway asset information. - Assessing asset information and determining suitable record updates within corporate asset management systems. - Validating geospatial information received from developers, contractors, utility companies and internal stakeholders. - Determining data quality priorities and identifying inconsistencies requiring investigation or correction. - Providing technical recommendations relating to asset records, mapping data and infrastructure information. - Supporting asset management and investment decisions through accurate data analysis and reporting. - Determining suitability of highway layouts through vehicle tracking and swept path assessments. - Prioritising requests for mapping, asset information and technical drawings.
Other considerations: <i>E.g. working patterns</i>	- Hybrid working pattern split between office-based duties and occasional site visits. - Requirement to attend meetings and undertake field verification surveys where necessary. - Extensive use of GIS, AutoCAD, MapInfo, Confirm and other specialist asset management software systems.

Key accountabilities and result areas:	Key elements:
Strategy and Planning	- Support the development and implementation of the Council's Highway Asset Management Strategy, Asset Information Strategy and Digital Transformation initiatives. - Maintain and improve highway asset databases to support informed investment and maintenance decisions. - Support the development of asset management policies, procedures and data standards. - Provide technical mapping and asset information to support funding bids, business cases and infrastructure investment programmes. - Contribute to continuous improvement initiatives relating to asset management systems and data quality.

Operations and Support	• Maintain and update highway asset information within Confirm, MapBase, AutoCAD, MapInfo and associated asset management systems. • Produce technical drawings, mapping products and spatial analysis to support highway maintenance and capital programmes. • Manage and maintain records relating to street developments, highway adoptions and network changes. • Record, validate and maintain street lighting, drainage and other highway asset information. • Produce working plans for highway resurfacing and improvement schemes. • Support highway adoption enquiries using asset records, Land Registry information and mapping systems. • Provide utility companies and stakeholders with plant information and asset location plans where appropriate. • Maintain records associated with traffic management schemes and highway improvement projects. • Undertake data conversion and integration between AutoCAD, MapInfo, GIS and asset management systems. • Use coordinate-based mapping systems to ensure accurate asset positioning and record management. • Undertake vehicle swept path and turning movement assessments to support highway scheme design. • Retrieve, validate and maintain defect information and support the creation of highway maintenance works. • Produce plans, maps and technical drawings to support internal and external customer requirements. • Ensure all highway asset records remain accurate, current and auditable. • Support engineers, inspectors and project managers through the provision of specialist asset information and mapping expertise.
Systems and Process Development and Improvement	• Maintain data quality standards across all highway asset management systems. • Ensure accurate electronic records and audit trails are maintained for all asset updates and modifications. • Support the development and implementation of GIS mapping solutions and digital asset management processes. • Identify data discrepancies and implement corrective actions to improve data integrity. • Develop efficient processes for managing asset information and responding to customer requests. • Contribute to the ongoing improvement of asset management systems, reporting tools and digital workflows.
Communication Partnership	• Provide specialist asset management, mapping and GIS advice to engineers, managers and project teams. • Liaise with utility companies, developers, consultants and contractors regarding asset information requirements. • Support responses to property enquiries, highway adoption requests and public enquiries. • Work collaboratively with highway inspectors and engineers to maintain accurate asset records. • Communicate complex mapping and asset information clearly to both technical and non-technical audiences. • Share asset intelligence and data insights with management and operational teams.
Performance and Standards	• Support health and safety compliance processes by ensuring required documentation, records, and contractor submissions are logged, monitored, and escalated where necessary, in line with Council procedures. • Monitor progress and performance of programmed works, tracking milestones against schedules, identifying delays or non-compliance, and escalating issues to supervising engineers or managers as required. • Collect and organise operational data relating to recurring issues, helping to identify patterns and providing supporting information for engineering teams to assess potential root causes or future interventions.

Resource Management	• Manage personal workload to ensure service priorities and deadlines are met. • Maintain specialist software competencies and technical expertise. • Support and mentor colleagues on GIS systems, mapping processes and asset management procedures. • Contribute to service efficiencies through improved data management and digital working practices.
General accountabilities and responsibilities	
Green Statement	This will involve: ▪ Seeking opportunities for contributing to sustainable development of the borough, in accordance with the Council's commitment to making Redbridge a cleaner, greener place to live. In particular, demonstrating good environmental practice (such as energy efficiency, use of sustainable materials, sustainable transport, recycling and waste reduction) in your job. Promote sustainable practice in highways maintenance, reduce waste, support right-first-time repairs and adopt low-impact travel where practical.
Data Protection/Confidentiality	This will involve: ▪ Complying with the Data Protection Act 1998 – treating all information acquired through your employment, both formally and informally, in strict confidence and in accordance with Caldicott principles. ▪ Complying with the Code of Conduct, other practice guidelines and the rules and protocols defining employees' access to and use of the Council's databases and systems. Any breaches could result in disciplinary measures. ▪ Maintaining client records and archive systems in accordance with departmental procedure, policy and statutory requirements.
Conduct and Whistleblowing	This will involve: ▪ Complying with the requirements of the Code of Conduct and maintaining high standards of personal conduct, honesty and integrity. You have a duty to raise any impropriety or breach of procedure to the appropriate level of management. Employees making such disclosures (whistleblowing) are protected and may make them without fear of recrimination.
Safer Working	This will involve: ▪ Commitment to safeguarding and promoting the welfare of children, young people and vulnerable adults. Where you work in such a post the Council will require a DBS Disclosure check and references will be taken up prior to interview.
Equalities	This will involve: ▪ Complying with the Council's strong commitment to achieving equality of opportunity and outcomes in its services to the community and in the employment of people. You are expected to understand, comply with and promote Council policies in your work, to undertake any appropriate training and to challenge any prejudice and discrimination.
Customer Care	This will involve: ▪ Complying with corporate and service area customer service standards and promoting the development of high quality, individualised and customer-led services.

Health and Safety	This will involve: - Being responsible for your own Health & Safety, as well as that of colleagues, service users and the public. Employees should co-operate with management, follow established systems of work, use protective equipment where necessary and report defectives and hazards to management. - Commitment to adhering to CDM, site worker safety, traffic management safety, and effective reporting of near misses and incidents as per Council policies and practices.
To contribute as an effective and collaborative member of the team	This will involve: - Taking responsibility for continuing self-development and participating in training and development activities. - Participating in the ongoing development, implementation and monitoring of the service plans. - Supporting and contributing to value for money, service efficiencies and improvements.
Flexibility	This will involve: The above-mentioned duties are neither exclusive nor exhaustive. From time to time you may be required to undertake responsibilities outside the normal remit of your Job Description as required by the line manager, and are broadly within your grading level and competence.

Person Specification

Job Title:	Highways Technician		
<i>Method of candidate assessment: A = Application form I = Interview T = Test. Weighting: 3 = most important, 2 = least important</i>		A - I - T	Weighting
Minimum education/ qualifications:	Relevant technical qualification in Highway Engineering, Civil Engineering, Geographic Information Systems (GIS), Asset Management, Surveying, Construction, Spatial Data Management or equivalent professional experience.	A	3
	Qualification or demonstrable experience in the use of AutoCAD, GIS, MapInfo, Confirm, MapBase or similar asset management and mapping systems.	A	3
	Evidence of continuing professional development relevant to highway asset management, digital mapping or geospatial technologies.	A	2
	Full UK Driving Licence desirable.	A	3

Minimum experience/ knowledge/ skills:	• Demonstrable experience maintaining and managing highway asset records, geospatial information and asset management systems.	A	3
	• Experience using AutoCAD, GIS platforms, MapInfo, Confirm, MapBase or equivalent systems to produce technical drawings, asset records and mapping information.	A	3
	• Experience interpreting and managing spatial and asset-related data to support highway maintenance, investment and operational decision making.	A	3
	• Experience maintaining accurate asset inventories and ensuring data quality across corporate systems.	A	3
	• Experience producing technical drawings, plans, maps and visual representations for engineering, operational and stakeholder requirements.	A	2
	• Experience supporting highway adoption processes, property enquiries, utility searches and infrastructure-related information requests.	A	3
Minimum behaviours: Customer service	• Provide a professional and responsive service to internal and external customers requiring highway asset information.	A	3
	• Respond to customer, developer, consultant and stakeholder enquiries relating to highway records, mapping and asset information.	I	3
	• Provide accurate and timely technical information to colleagues, utility companies, property solicitors and members of the public.	A	3
	• Build positive working relationships with internal and external stakeholders to support effective service delivery.	A	2
	• Demonstrate a commitment to delivering high standards of customer care and data accuracy.	A	3
Communicating and influencing others	• Ability to communicate complex technical and mapping information clearly to both technical and non-technical audiences.	A	3
	• Produce accurate plans, drawings, reports and asset information suitable for operational, legal and management purposes.	A	3
	• Present asset information and recommendations clearly to engineers, managers and stakeholders.	A	3
	• Build effective working relationships across multidisciplinary teams to ensure asset information supports service delivery.	I	3
	• Demonstrate confidence in providing advice and guidance relating to highway records, GIS data and mapping systems.	A	3
	• Ability to explain technical asset information in a clear and accessible manner to customers and service users.	A	2

Working together	• Experience of working within a highways, engineering, asset management or local authority environment.	A	2
	• Ability to work effectively with engineers, inspectors, designers and operational teams.	A	3
	• Proven ability to work collaboratively with internal departments, utility companies, consultants and contractors.	A	2
	• Support colleagues by providing specialist mapping, GIS and asset information expertise.	A	3
	• Contribute positively to team objectives and shared service priorities.	A	3
	• Demonstrate flexibility in supporting a broad range of highway and infrastructure-related projects and activities.	A	3

Analysis and judgement	• Strong understanding of highway asset management principles and their application in supporting maintenance and investment decisions.	A	2
	• Ability to interpret technical drawings, plans, infrastructure records and geospatial information.	A	3
	• Experience analysing asset information and identifying discrepancies, omissions or opportunities for improvement.	A	2
	• Working knowledge of highway asset management systems and data quality requirements.	A	
	• Understanding of the Highways Act 1980 and its relevance to highway records, adoptions and the Council's responsibilities as Highway Authority.	I	3
	• Knowledge of the importance of accurate asset information in supporting claims management, maintenance activities and statutory duties.	A	3
	• Ability to assess and validate information from multiple sources and determine the most appropriate course of action.	A	2
	• Experience undertaking vehicle swept-path assessments or interpreting highway layout information would be advantageous.	A	2

Driving improvement	• Demonstrate a commitment to continuous improvement in asset management processes and data quality.	I	3
	• Identify opportunities to improve systems, workflows and information management practices.	A	2
	• Contribute to the development and implementation of improved asset management procedures.	A	3
	• Actively participate in training, professional development and learning opportunities.	A	3
	• Support service improvements that enhance efficiency, customer service and value for money.	A	3
	• Promote digital innovation and effective use of asset management technologies.	A	2
Adaptability	• Demonstrate the ability to adapt to changing service priorities, workloads and organisational requirements.	A	3
	• Ability to manage multiple competing demands while maintaining high levels of accuracy and attention to detail.	A	3
	• Demonstrate flexibility in learning and applying new software systems, technologies and working practices.	A	2
	• Adapt technical knowledge to support a wide range of highway asset types, engineering disciplines and service requirements.	A	2
	• Respond positively to changes in legislation, industry standards, corporate systems and asset management processes.	A	2
Leadership and managing people (for those with line management responsibility)	• N/A	I	
Strategic perspective (for senior management posts)	• N/A	I	

Special conditions:	Role is both Site/office based, requiring extensive walking and driving across the borough each day, with limited time spent in the office at Lynton House for administrative duties, meetings or briefings.	A	3
	Regular travel to multiple sites/locations throughout the day, in all weather conditions, including high-risk environments such as busy roads, construction sites, areas with poor lighting, or locations affected by flooding or surface defects.	A	3
	Required to work outside normal office hours when necessary, including early mornings, evenings, nights or weekends, to support statutory inspection frequencies, emergency incidents, winter service patrols or sites operating outside standard hours.	A	3
	Workload is subject to frequent and unpredictable change, often requiring rapid re-prioritisation in response to emergencies, severe weather, incidents, public reports, or Member enquiries.	A	3
	Lone working is frequently required, following Council procedures and dynamic risk assessments.	A	3
	Ability to travel safely and independently across all areas of the borough on a daily basis is essential, including carrying equipment such as handheld inspection devices and PPE.	A	3

