

Appendix D – Highway Maintenance Contract Benchmarking

Benchmarking of London Borough Highways Term Maintenance Contracts and Reactive Maintenance Arrangements

1. Purpose

This appendix compares Brent's highway maintenance contractual arrangements with those of a representative sample of London boroughs. The objective is to assess whether Brent's approach is consistent with current London practice and to identify examples of good practice that may inform future contract management and procurement.

The benchmarking focuses on:

- Contract procurement model
- Contract duration
- Scope of services
- Reactive maintenance arrangements
- Performance management
- Innovation and continuous improvement

The review has been undertaken using publicly available procurement notices, DfT Local Highways Maintenance Transparency Reports and published council reports. The comparator group comprises authorities operating networks of broadly similar complexity to Brent.

2. Key Findings

The review identifies several consistent themes across London.

2.1 Contract Model

Nearly all comparator authorities now procure integrated highway maintenance term contracts rather than separate contracts for different maintenance activities. NEC4 has become the dominant contractual model, reflecting its emphasis on collaboration, performance management and continuous improvement. Recent procurements by Hillingdon and Westminster illustrate this trend.

2.2 Contract Duration

Longer contract durations are becoming increasingly common.

Most authorities now procure contracts for **7–10 years**, frequently with extension options taking the total duration to 10–12 years. Longer contract periods are intended to encourage investment in technology, workforce development and innovation while providing greater certainty for long-term asset management. Hillingdon's recently awarded contract, for example, has an initial seven-year term with an option to extend for a further five years.

2.3 Scope of Service

London borough contracts increasingly provide a single integrated service comprising:

- Reactive highway maintenance
- Planned carriageway resurfacing
- Footway reconstruction
- Drainage maintenance
- Highway inspections
- Winter maintenance
- Street furniture repairs
- Emergency call-out
- Traffic management
- Minor capital works

This integrated approach reduces contractual interfaces and allows contractors to deploy resources more efficiently. Hillingdon's procurement explicitly combines routine and reactive maintenance, drainage, crossings and capital works within one contract.

2.4 Reactive Maintenance

Across London there has been a noticeable shift from target-driven defect repair towards risk-based maintenance, consistent with the *Well-managed Highway Infrastructure* Code of Practice.

Authorities increasingly prioritise defects according to assessed risk rather than fixed dimensional criteria alone, allowing available resources to be targeted at locations presenting the greatest risk to highway users. This approach is reflected in the DfT transparency reporting guidance.

3. Benchmarking of Contract Arrangements

Borough	Contract Model	Typical Contract Length	Integrated Service	Observations
Brent	NEC4 Term Service Contract	7 years + extension	✓	Asset management-led contract with integrated maintenance
Hillingdon	NEC4 Term Service Contract	7 + 5 years	✓	Comprehensive routine, reactive and capital works contract
Havering	Term Service Contract	6 + 4 years	✓	Includes environmental management obligations and

				carbon commitments
Newham	Multi-contractor Framework	Multi-year	✓	Framework for reactive maintenance, planned works and street lighting
Westminster	NEC4 integrated highways contract	Long-term	✓	Integrated highways and public realm maintenance (recent procurement)

Commentary

Brent's contractual model aligns closely with current London practice. Like most comparator authorities, Brent has adopted:

- a long-term contractual relationship;
- an integrated service covering both planned and reactive maintenance;
- performance management through KPIs; and
- a risk-based maintenance philosophy.

The benchmarking indicates that Brent's arrangements are consistent with those adopted by authorities procuring new highway maintenance contracts during the past two years.

4.0 Reactive Maintenance Benchmark

Although boroughs publish different operational targets, the service model is remarkably consistent.

Activity	Brent	London Practice
Emergency response	Immediate attendance	Universal
Safety defects	Risk based	Universal
Planned maintenance	Asset management led	Universal
Highway inspections	Risk based frequencies	Universal
Customer reporting	Digital reporting	Increasingly common
Mobile inspections	Yes	Becoming standard

A significant trend is the movement away from measuring success solely through response times. Increasingly, contracts are expected to demonstrate:

- reduction in repeat defects;
- improved asset condition;
- reduced whole-life cost;
- lower carbon emissions;
- improved customer satisfaction.

This reflects the DfT's emphasis on preventative maintenance and transparent reporting of network condition and investment decisions.

4.1 Initial Assessment of Brent

Based on the evidence reviewed to date, Brent compares well with the selected London boroughs.

Benchmark Area	Assessment
Contract structure	☐ Strong
Contract duration	☐ Consistent with London practice
Scope of services	☐ Comprehensive
Reactive maintenance model	☐ Consistent with best practice
Asset management integration	☐ Strong
Digital working	☐ Above average
Sustainability	☐ Developing
Public performance reporting	☐ Opportunity for enhancement

4.2 Emerging conclusion

The benchmarking suggests that Brent's contractual arrangements are well aligned with contemporary London practice. The Council's use of an integrated NEC4 term contract, supported by risk-based inspections and asset management principles, is consistent with the direction of travel promoted by the Department for Transport. Opportunities for further development are likely to lie less in the core contractual model and more in expanding outcome-based performance measures, public reporting of performance and demonstrating the wider social, environmental and customer benefits delivered through the contract.

5. Contract Performance Benchmarking

5.1 Introduction

A review of published highway maintenance contracts, annual performance reports and DfT Transparency Reports indicates that London boroughs are increasingly adopting “balanced performance frameworks”. These combine traditional operational measures (such as response times and defect completion) with broader indicators covering asset condition, customer satisfaction, sustainability and social value.

Historically, highway maintenance contracts relied heavily on response-time KPIs. More recent contracts place greater emphasis on outcomes, including network resilience, carbon reduction, customer experience and whole-life asset management, reflecting the recommendations of the “Well-managed Highway

Infrastructure” Code of Practice and the Department for Transport's transparency reporting framework.

Brent's existing performance framework is consistent with this direction of travel, combining operational performance indicators with asset management measures and environmental objectives.

5.2 Typical Performance Measures Used Across London

The table below compares the principal performance measures commonly found within London highway maintenance contracts.

Performance Measure	Brent	Typical London Practice	Comment
Emergency response within	✓	✓	Core contractual KPI
Urgent defects completed within target	✓	✓	Common
Routine repairs completed within target	✓	✓	Common
Repeat defect monitoring	●	Increasing	More common in recent procurements
First-time repair	●	Increasing	Focus on reducing repeat visits
Customer complaints	✓	✓	Widely monitored
Emergency call-out attendance			Standard contractual measure
Programme delivery	✓	✓	Planned works delivery
Carbon reduction	✓	Most	Increasing importance
Recycled materials	✓	Most	Sustainability objective
Waste diversion from landfill	✓	Common	Circular economy focus
Social value delivery	✓	Nearly all	Employment and apprenticeships
Health & Safety compliance	✓	Universal	Core contract requirement
Supply chain performance	●	Emerging	Larger contracts
Category 1 safety defects completed within target		✓	Universal

Innovation initiatives	✓	Increasing	Digital delivery and AI
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Key

✓ = routinely monitored

● = monitored by some authorities or under development

5.3 Brent's Performance Framework

Brent currently monitors a comprehensive suite of performance indicators through its Highways Term Maintenance Contract. These include:

Operational Performance

- Category 1 defects repaired within target
- Category 2 defects repaired within target
- Emergency call-outs attended within target
- Minor works completed within agreed timescales
- Quotations returned within target

These indicators provide assurance that statutory highway safety obligations are being discharged effectively.

Asset Management

Increasingly, performance is measured not simply by the number of repairs undertaken but by the overall condition and resilience of the highway asset. Brent has strengthened this approach through:

- annual carriageway condition surveys;
- independent footway condition surveys;
- prioritisation based on network condition and risk;
- annual maintenance programme reviews.

This reflects the principles of preventative asset management promoted by the Department for Transport.

Sustainability

Like many London authorities, Brent has incorporated sustainability measures into contract management, including:

- recycled construction materials;
- waste recovery;
- reduction in landfill disposal;
- carbon reporting;
- efficient use of highway materials.

Environmental performance is becoming an increasingly significant element of highway maintenance procurement.

5.4 Emerging Best Practice Across London

The benchmarking identified several themes that are becoming increasingly common.

Moving Beyond Response Times

Authorities are recognising that repairing defects quickly does not necessarily represent the best use of public resources. Increasing emphasis is therefore being placed on:

- preventing defects occurring;
- reducing repeat repairs;
- extending asset life;
- targeting investment through asset management.

Customer Outcomes

Performance frameworks increasingly include measures such as:

- communication during works;
- complaint resolution;
- quality of reinstatement;
- visual appearance of completed repairs.

This reflects the wider expectation that highway maintenance should improve customer experience rather than simply achieve contractual response times.

Innovation

Many recent contracts now include formal requirements for continuous improvement, including:

- artificial intelligence for condition surveys;
- digital inspections;
- mobile working;
- predictive maintenance;
- data-driven programming;
- carbon reduction initiatives.

Brent's adoption of AI-assisted carriageway condition surveys places it among the more digitally advanced London authorities.

5.5 Benchmark Assessment

The table below provides an overall comparison of Brent's current performance management arrangements.

Theme	Brent Position	London Comparison
Operational KPIs	□ Strong	Above average
Emergency response	□ Strong	Comparable
Asset management	□ Strong	Above average
Digital working	□ Strong	Above average
Sustainability	□ Good	Comparable
Customer focus	□ Developing	Comparable
Outcome-based KPIs	□ Developing	Increasingly common
Continuous improvement	□ Strong	Above average

5.6 Conclusions

The review indicates that Brent's performance management framework is broadly aligned with contemporary practice across London. The Council has adopted a balanced suite of operational, asset management and sustainability indicators that reflect the increasing emphasis on preventative maintenance and long-term stewardship of the highway network.

Future opportunities are likely to lie in the further development of outcome-based measures—particularly those relating to customer experience, repeat defect reduction and asset resilience—rather than in expanding traditional response-time targets. This would support continued alignment with emerging sector best practice and the Department for Transport's transparency reporting framework while providing Scrutiny Members with a clearer understanding of the wider benefits delivered through the Highways Term Maintenance Contract.

6. Innovation, Digital Delivery and Asset Management Maturity

6.1 Introduction

Highway maintenance contracts have evolved significantly over the past decade. Traditionally, contracts focused on delivering reactive repairs against prescribed response times. More recent procurements place greater emphasis on technology, data-driven decision making and continuous improvement to maximise the value obtained from limited maintenance funding.

The DfT's *Well-managed Highway Infrastructure* Code of Practice encourages authorities to adopt a risk-based, asset management approach supported by robust asset information, lifecycle planning and performance monitoring. Consequently, many London boroughs now require contractors to demonstrate innovation throughout the life of the contract rather than simply delivering prescribed maintenance activities.

Brent has adopted a number of these approaches and is well placed to respond to future developments in digital highway management.

6.2 Benchmarking Digital Maturity

The table below provides a qualitative assessment of the maturity of highway maintenance practices across the comparator authorities.

Theme	Emerging Practice	Typical London Position	Brent Position
Risk-based inspections	Established	Standard	Advanced
Asset management planning	Established	Standard	Advanced
Mobile inspection technology	Established	Common	Advanced
Digital works ordering	Established	Common	Advanced
AI carriageway condition surveys	Emerging	Limited adoption	Leading
Independent condition surveys	Common	Increasing	Established
Lifecycle investment modelling	Common	Developing	Advanced
Carbon performance monitoring	Emerging	Developing	Established
Circular economy reporting	Emerging	Developing	Established
Customer self-service reporting	Established	Standard	Established
Data-led programme optimisation	Emerging	Developing	Advanced
Predictive maintenance	Emerging	Limited adoption	Developing

The comparison suggests that while most London authorities have implemented digital inspection systems and mobile working, fewer have fully integrated these technologies into long-term asset management. Brent's use of AI-supported carriageway condition surveys, independent footway condition surveys and lifecycle planning places it towards the more advanced end of the maturity spectrum.

6.3 Asset Management Maturity Assessment

The table below assesses Brent against recognised characteristics of a mature asset management organisation.

Characteristic	Typical London Practice	Brent Assessment
Risk-based maintenance policy	✓	✓
Published Highway Asset Management Strategy	✓	✓
Annual condition surveys	✓	✓
Independent network condition assessment	Mixed	✓

Characteristic	Typical London Practice	Brent Assessment
Prioritisation based on asset condition	Increasing	✓
Performance dashboard	Common	✓
Carbon and environmental reporting	Increasing	✓
Continuous improvement programme	Mixed	✓
AI-assisted condition assessment	Limited	✓

Overall, Brent demonstrates a mature asset management approach, combining condition data, risk assessment and lifecycle planning to inform investment decisions.

6.5 Opportunities for Further Development

Although Brent compares favourably with many authorities, the benchmarking identified several opportunities that are becoming more common across the sector.

Predictive Maintenance

A growing number of authorities are exploring predictive analytics to identify locations at greatest risk of deterioration before safety defects develop.

Potential future applications include:

- deterioration modelling;
- climate resilience analysis;
- proactive drainage maintenance;
- optimised treatment selection.

Customer Experience Measures

Many authorities are expanding performance frameworks beyond engineering outputs to include customer-focused measures such as:

- resident satisfaction;
- communication quality;
- complaint resolution times;
- perception of completed works.

Introducing these measures would provide a broader understanding of contract performance.

Carbon Performance

While Brent already monitors environmental performance, future contracts may include more detailed reporting on:

- embodied carbon in maintenance activities;
- carbon savings achieved through preventative maintenance;
- use of recycled materials;
- fuel consumption and fleet emissions.

6.6 Innovation Scorecard

Area	Brent Position Benchmark
Digital inspections	☐ Leading
Mobile working	☐ Leading
Asset management	☐ Leading
AI technology	☐ Leading
Data analytics	☐ Strong
Lifecycle planning	☐ Strong
Customer analytics	☐ Developing
Predictive maintenance	☐ Developing
Carbon reporting	☐ Strong
Continuous improvement	☐ Strong

6.7 Summary

The benchmarking indicates that Brent has adopted many of the characteristics associated with a mature, data-led highway maintenance service. The Council has moved beyond a traditional reactive maintenance model by integrating digital technologies, asset management principles and lifecycle planning into its maintenance strategy.

Whilst opportunities remain to further develop customer-focused performance measures and predictive maintenance techniques, Brent is well positioned to respond to future developments in highway asset management and compares favourably with other London boroughs in several key areas.