THE LONDON TECHNICAL ADVISERS GROUP (LoTAG)

HIGHWAYS ASSET MANAGEMENT - STATUS REPORT 2018 - BENCHMARKING

CONTENTS

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Officers and staff of the following organisations took part in workshops, focus groups and consultations to produce this document:

LoTAG Board and Chairs
LoHEG, LoDEG, LoLEG, LoBEG
Metis Consultants Ltd
London Boroughs

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1. OVERVIEW

The London Technical Advisers Group (LoTAG) maintains a technical network for local government professionals and co-opted members in the highway and transport fields. It provides a centre for professional advice and assistance for local policy development and service delivery on a London wide basis. LoTAG is the regional grouping of TAG comprising a group of professional officers.

In early summer 2015, LoTAG distributed a draft Highway Asset Management Status Report for boroughs to consider and respond to. Late summer 2015 the final Status Report template was released with submission to coincide with the Local Implementation Plan returns, early October 2015. In early 2017 a second Status Report template was released, which was lighter in content and less onerous for boroughs to complete. This lighter format ensured a much greater response rate from the boroughs and allowed LoTAG to compile the inaugural State of the City Report which presented headline figures for London's highways assets. In early 2018 a third Status Report template was released which built upon the success of the 2017 version. This third iteration expanded the Status Report to include information about additional assets, safety inspections, claims and defects. The template was issued pre-populated with data received from the boroughs in the January 2017 Status Report and the boroughs were requested to simply update the figures that had changed. Responses from the Status Report have been received from 32 of the 33 boroughs, as well as Transport for London (TfL), in 2015, 2017 or 2018, or a combination or returns.

The aim of the Status Report is to build up a picture of highway asset management practice in London. In turn this will help LoTAG understand where London is moving forward with asset management and where the benefit of asset management is not being fully realised.

This LoTAG Benchmarking Report details the results derived from the Status Report 2018, which presents a picture of London's highway assets and how they compare with the 2017 Status Report. It is envisaged that these numbers will mature over time as the Status Report is developed and more accurate data is received in the years ahead. This will allow for trends in the data to be identified and ensure that the necessary support is sought to safeguard the long-term interests of London's highways assets.

Appendix 1 shows a comparison of capital, revenue and combined spending against the carriageway lengths.

2. PERFORMANCE MEASURES

Performance measurements have been updated following the Status Report 2018 where possible. However, where no updates are available this has been highlighted in red.

2.1. CARRIAGEWAYS

Aim: To support healthy streets with well-maintained carriageways to promote active travel

Carriageways	Size	Spend (Capital + Reactive)		Steady State		Backlog	
		2016/17	2017/18	2016/17	2017/18	2016/17	2017/18
	16,675km	£143m	£152m	£214m	£209m	£128m	£223m
	Trend	↑		↓		↑	

Performance Measure	London Performance			1% equivalent	Cost to meet LoTAG Aspiration
Description	LoTAG Aspiration	Current (2017/18)	Trend from 2016/17		
C1 Network Condition (SOGR) – Principal roads	>90%	83%	↓	53.0km £8.0m	£56.0m
C2 Network Condition (SOGR) – non-principal/unclassified roads	>85%	82%	←	131km £37.4m	£112.2m
C3 Percentage of carriageway surface area treated per year (%)	5 to 6%	4%	←	1.2Mm²	£37.8m
C4 Percentage of steady state funding funded (%)	100%	72%	↑	£2.1m	£114.7m
C5 Ratio of capital to reactive spend (% capital)	>75%	72%	↓	£1.4m	£4.2m
C6 Number of reactive repairs per km (no./km)	<2/km	3.2/km	↓	-	TBD

2.2. FOOTWAYS

Aim: To support healthy streets with well-maintained footways to promote active travel

Footways	Size	Spend (Capital + Reactive)		Steady State		Backlog	
		2016/17	2017/18	2016/17	2017/18	2016/17	2017/18
	25,814km	£59m	£61m	£73m	£69m	£262m	£311m
	Trend	↑		↓		↑	

Performance Measure	London Performance			1% equivalent	Cost to meet LoTAG Aspiration
Description	LoTAG Aspiration	Current (2017/18)	Trend from 2016/17		
F1 Network Condition (SOGR) – all footways	>80%	77%	↑	848.4km £85.4m	£341.6m
F2 Percentage of footway surface area treated per year (%)	>5%	4%	←	0.5Mm² £19.5m	TBA
-F3 Percentage of steady state funding funded (%)	100%	88%	↑	£7.3m	£14.3m
F4 Ratio of reactive to capital spend (% capital)	>75%	67%	↓	£0.6m	£4.8m
F5 Number of safety defects per km (no./km)	<2/km	TBA	TBA	-	TBD

2.3. STRUCTURES

Aim: To support healthy streets with well-maintained structures to provide resilient infrastructure

Structures	Size	Spend (Capital + Reactive)		Steady State		Backlog	
		2016/17	2017/18	2016/17	2017/18	2016/17	2017/18
	1,040,628 m²	£90m	£85m	£94m	£87m	£133m	£174m
	Trend	↓		↓		↑	

Performance Measure		London Performance			1% equivalent	Cost to meet LoTAG Aspiration
Description		LoTAG Aspiration	Current (2017/18)	Trend from 2016/17		
S1	Bridge Stock Condition (SOGR) – all Principal road structures	90%	88%	←	£34.6m 10,406m²	£69.2m
S2	Bridge Stock Condition (SOGR) – all Non-principal/unclassified road structures	90%	TBA	TBA	TBD	TBD
S3	Percentage of surface area treated per year (%)	2%	TBD	TBD	TBD	TBD
S4	Percentage of steady state funding funded (%)	100%	82%	↑	£0.9m	£16.2m
S5	Ratio of reactive to capital spend (% capital)	>75%	84%	↑	-	-
S6	Number of structures with structural capacity restrictions (all assets)	0	TBA	TBA	-	TBD

2.4. DRAINAGE

Aim: To support healthy streets with well-maintained drainage to provide resilient infrastructure

Drainage	Size	Spend (Capital + Reactive)		Steady State		Backlog	
		2016/17	2017/18	2016/17	2017/18	2016/17	2017/18
	650k Gullies	£13m	£12m	TBD	TBD	TBD	TBD
	Trend	↓		TBD		TBD	

Performance Measure		London Performance			1% equivalent	Cost to meet LoTAG Aspiration
Description		LoTAG Aspiration	Current (2017/18)	Trend from 2016/17		
D1	Drainage Asset Condition (SOGR) – all Principal road assets	TBD	TBA	TBD	TBD	TBD
D2	Drainage Asset Condition (SOGR) – all Non-principal/unclassified road assets	TBD	TBA	TBD	TBD	TBD
D3	Percentage of gullies cleaned per year (%)	TBD	TBA	TBD	TBD	TBD

| Performance Measure | London Performance | | | 1% equivalent | Cost to meet LoTAG Aspiration |
Description	LoTAG Aspiration	Current (2017/18)	Trend from 2016/17		
D4 Percentage of steady state funding funded (%)	TBD	TBA	TBD	TBD	TBD
D5 Ratio of reactive to capital spend (% capital)	TBD	40%	←	-	-
D6 Percentage of gullies needing repair (%)	TBD	TBA	TBD	TBD	TBD
D7 Quality of asset inventory (Confidence %)	TBD	TBA	TBD	TBD	TBD
D8 SuDs area (m^2) disconnected from main sewer	TBD				

2.5. STREET LIGHTING

Aim: To support healthy streets with well-maintained street lighting to provide resilient infrastructure and reduce energy usage

| Street Lighting | Size | Spend (Capital + Reactive) | | Steady State | | Backlog | |
		2016/17	2017/18	2016/17	2017/18	2016/17	2017/18
	601k columns	£36m	£40m	£52m	£48m	£207m	£199m
	Trend	↑		↓		↓	

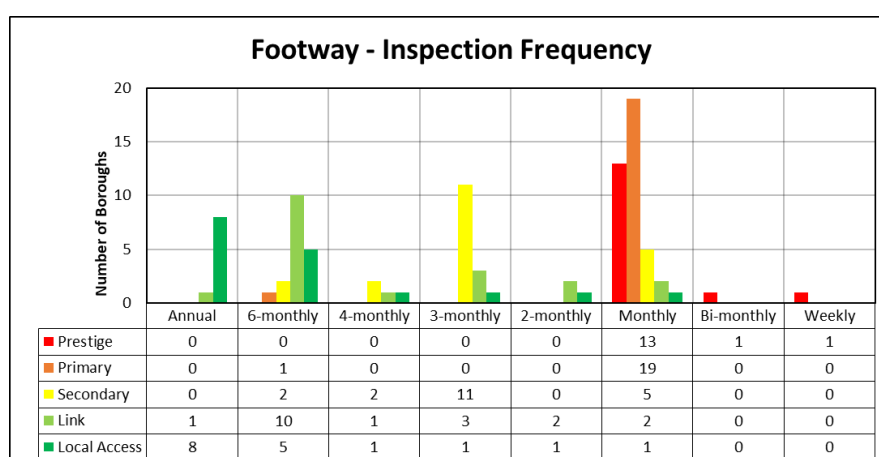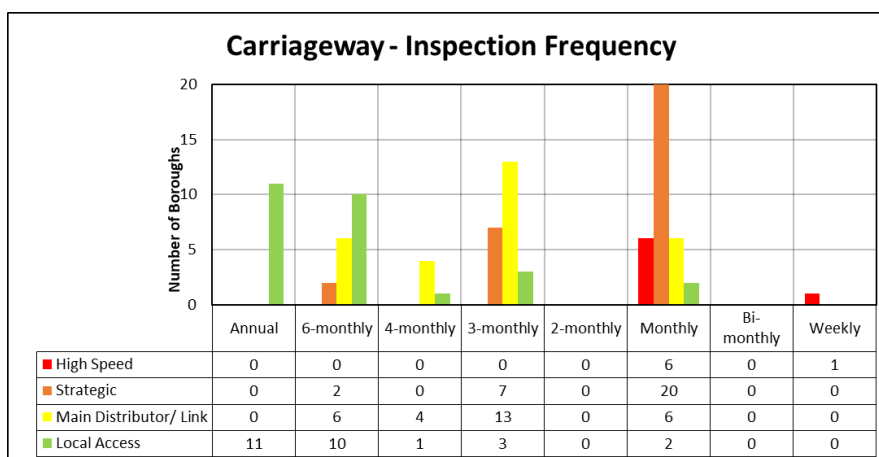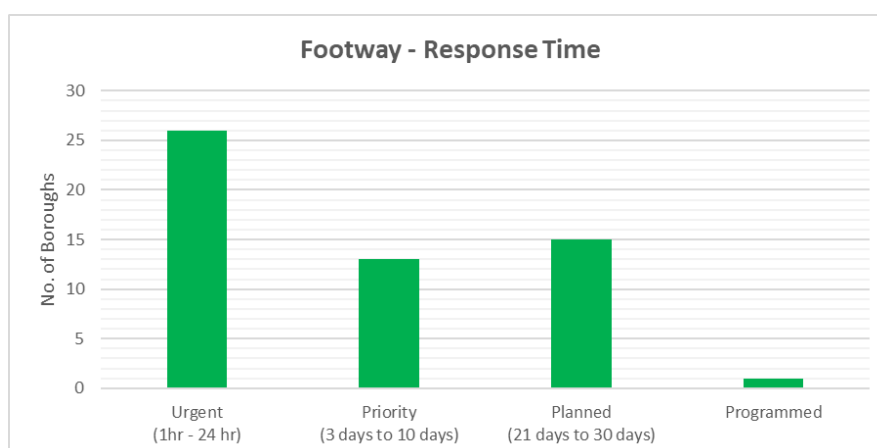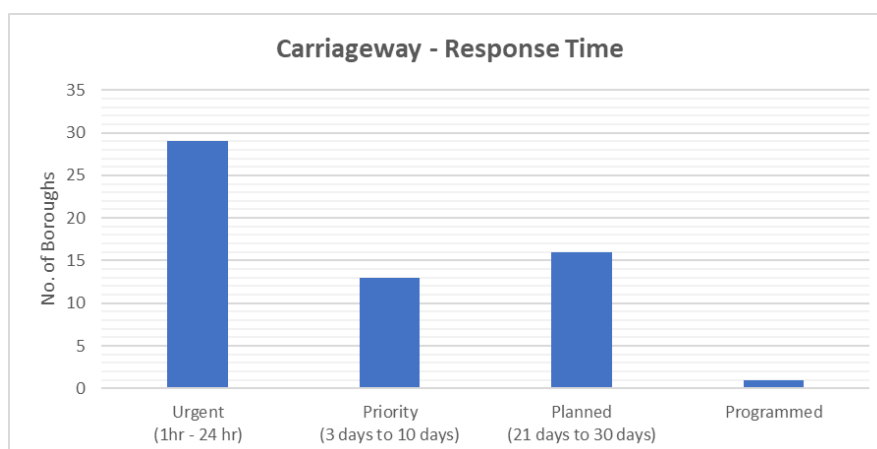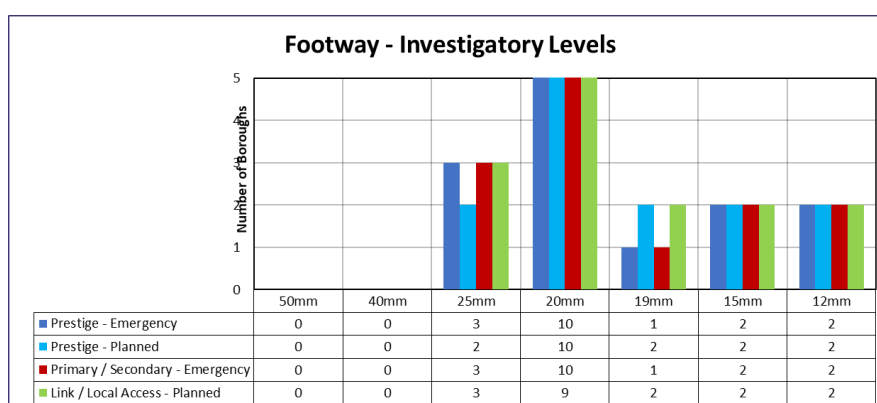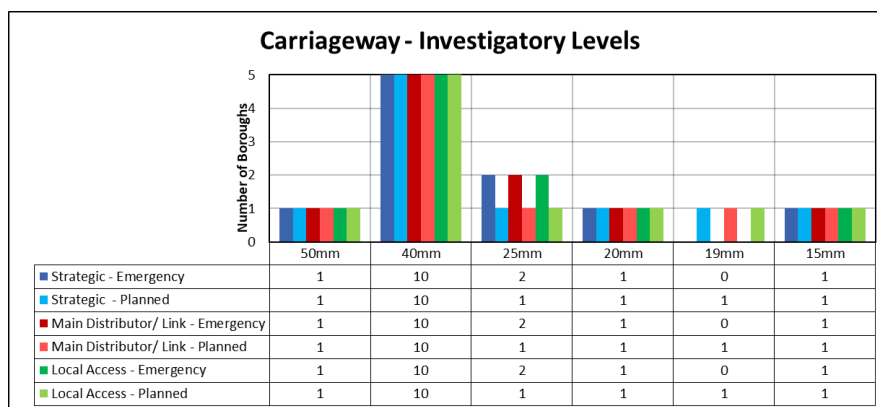| Performance Measure | London Performance | | | 1% equivalent | Cost to meet LoTAG Aspiration |
Description	LoTAG Aspiration	Current (2017/18)	Trend from 2016/17		
L1 Lighting Asset Condition (SOGR)	95%	83%	←	6,000 units £6.0m	£72.0m
L2 Percentage of asset treated per year (%)	2.5%	2.2%	←	6,000 units	£0.18k
L3 Percentage of steady state funding funded (%)	100%	79%	↑	£0.5m	£10.5m
L4 Ratio of reactive to capital spend (% capital)	75%	53%	↑	-	-
L5 Yearly street light energy consumption per column (kWh/unit)	<300kWh /unit	429kWh/ unit	↓	4kWh/unit	-

2.6. ASSET OPERATIONS

Though asset operation information formed part of the Status Report 2018, not enough information was collected to carry out a meaningful analysis. It is paramount that in the future boroughs are able to provide this information as this will support the implementation of the Code of Practice and allow boroughs and LoTAG to understand operational highway data related to London.

Performance Measure	London Performance			1% equivalent	Cost to meet LoTAG Aspiration
Description	LoTAG Aspiration	Current (2016/17)	Trend from 2015/16		
O1 Number of Claims per km (no./km)	<1/km	TBD	TBD	-	-
O2 Percentage of claims repudiated (%)	100%	TBD	TBD	TBD	-
O3 Number of complaints on the highways service per km (no./km)	<1/km	TBD	TBD	-	-
O4 km of network treated as part of Winter Service	TBD	TBD	TBD	-	-

2.7. SAFETY INSPECTIONS

In the Status Report 2018 all boroughs were asked if new safety inspection measures (Frequency, Investigatory Levels, Response Times) had been adopted in line with the Code of Practice. The information received has been augmented with that already held by LoTAG and is summarised below.

Carriageway - Inspection Frequency

	Annual	6-monthly	4-monthly	3-monthly	2-monthly	Monthly	Bi-monthly	Weekly
High Speed	0	0	0	0	0	6	0	1
Strategic	0	2	0	7	0	20	0	0
Main Distributor/ Link	0	6	4	13	0	6	0	0
Local Access	11	10	1	3	0	2	0	0

Footway - Inspection Frequency

	Annual	6-monthly	4-monthly	3-monthly	2-monthly	Monthly	Bi-monthly	Weekly
Prestige	0	0	0	0	0	13	1	1
Primary	0	1	0	0	0	19	0	0
Secondary	0	2	2	11	0	5	0	0
Link	1	10	1	3	2	2	0	0
Local Access	8	5	1	1	1	1	0	0

Carriageway - Investigatory Levels

	50mm	40mm	25mm	20mm	19mm	15mm
Strategic - Emergency	1	10	2	1	0	1
Strategic - Planned	1	10	1	1	1	1
Main Distributor/ Link - Emergency	1	10	2	1	0	1
Main Distributor/ Link - Planned	1	10	1	1	1	1
Local Access - Emergency	1	10	2	1	0	1
Local Access - Planned	1	10	1	1	1	1

Footway - Investigatory Levels

	50mm	40mm	25mm	20mm	19mm	15mm	12mm
Prestige - Emergency	0	0	3	10	1	2	2
Prestige - Planned	0	0	2	10	2	2	2
Primary / Secondary - Emergency	0	0	3	10	1	2	2
Link / Local Access - Planned	0	0	3	9	2	2	2

Carriageway - Response Time

Footway - Response Time

2.8. COMPETENCIES AND TRAINING

In the Status Report 2018 all boroughs were asked what their approach was to the training and competency recommendation in the Code. The question posed was:

"What measures do your borough adopt for training staff. This will help inform the Competencies and Training work LoTAG Group 2 is currently undertaking. Staff level, Formal training informal training and qualifications required."

Responses were received from 14 boroughs, 42%. The table below summarises the training being undertaken across London.

Staff Level	Borough Summary		
	Formal (Course names)	Informal	Qualifications Recommended
Policy & Decision Makers	- Winter Service Practitioners - CDM 2015	- Briefing papers - Regular toolbox sessions - ILM Level 5/7 - CPD - On the job training	- Professional Membership - Civil Engineering degree
Asset Manager / Owner	- HMEP Training - Winter Service Practitioners - Risk Training - CDM 2015 - Bridge Station	- LoTAG Technical Group Meetings - South London Consortium - CIPFA HAMP Events - GIS / Data base training - Asset Management System supplier training - Regular toolbox sessions - CPD - On the job training	- Degree, HNC relevant experience
Highway Engineers	- NRSWA - City & Guilds (Supervisors) - Winter Service Practitioners - CDM 2015	- Asset Management System supplier training - ILM Level 3 - Regular toolbox sessions - CPD - On the job training	- Degree, HNC relevant experience
Highway Inspectors / Claims Investigator	- NRSWA - City and Guilds 6033 Units 301&311 - LANTRA Highway Inspector Training	- Asset Management System supplier training - Regular toolbox sessions - CPD - On the job training	- Relevant experience - National Highways Inspector Register - SWQR Licence
Support Staff		- City & Guilds (Supervisors) - NRSWA - Asset Management System supplier training - Regular toolbox sessions - Customer Services Advisors Skills - Microsoft Applications - CPD - On the job training	- English/Maths GCSE or equivalent

2.9. ASSET MANAGEMENT MATURITY ASSESSEMENT

This section summarises the responses of the boroughs to asset management maturity. The questions in the Status Report 2018 were based on the Institute of Asset Management self-assessment toolkit and the Highway Maintenance Efficiency Programme (HMEP) asset management guidance. The boroughs were asked to rate themselves on a scale of 0-4, with 0 indicating 'Innocence' and 4 indicating 'Integrated and Optimised'. The statements boroughs were asked to respond to were as follows:
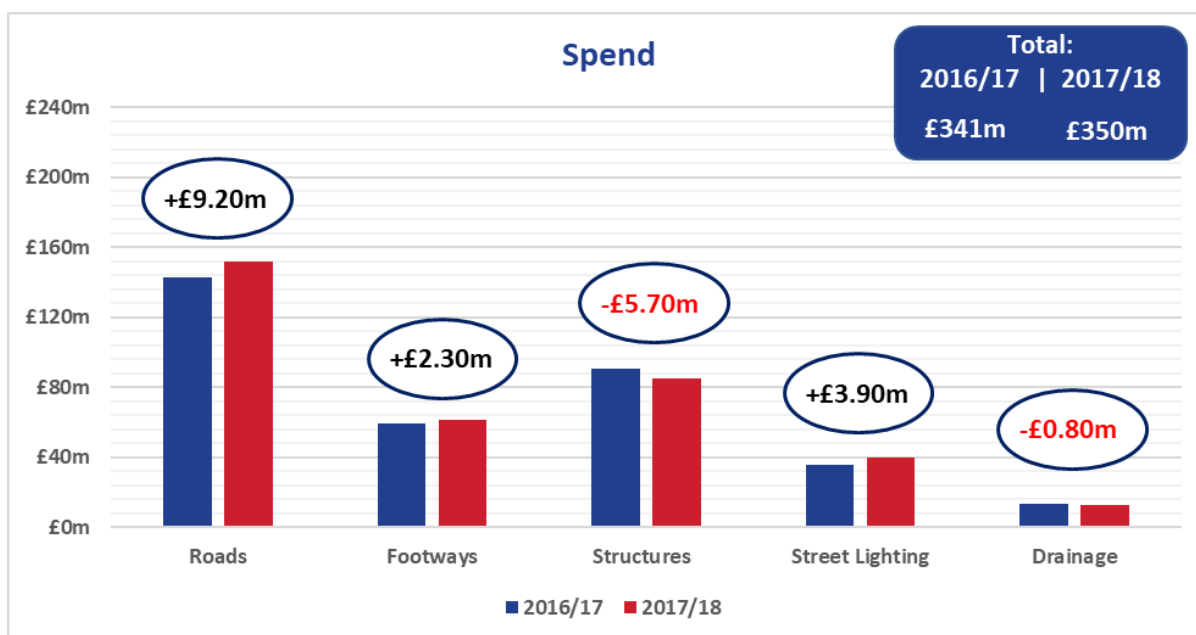
1. **Policy and Strategy** – the borough has a documented asset management policy and strategy that are consistent with strategic polices and strategies, and stakeholder requirements. The asset management policy and strategy are authorised by members/senior management (*HMEP 1; DfT Incentive Fund 1*)
2. **Communications** – asset management practices and activities are effectively communicated to relevant internal and external stakeholders including customers (*HMEP 2 and 14; DfT Incentive Fund 2*)
3. **Stakeholders** – key asset management stakeholders, including customers and members, have been identified and are suitably engaged and their requirements are used to inform practices, including capturing customer feedback (*HMEP 12 and 13*)
4. **Risk Management** – the borough has well defined risk management processes that feed into and inform asset management decision making and activities (*HMEP 8*)
5. **Lifecycle planning** – documented and auditable whole life and lifecycle planning principles and practices are used to assess short and long-term asset performance, costs and risks in order to inform business planning (*HMEP 5; DfT Incentive Fund 5*)
6. **Prioritised work programmes** – documented and systematic practices, that take account of risks to objectives, safety and performance, are used to identify and prioritise cost effective programmes of works (*HMEP 20*)
7. **Inspections and defect response** – documented and systematic practices are embedded and resourced for asset inspections and defect response – the practices are risk based where appropriate (*no HMEP equivalent*)
8. **Competence and training** – competency requirements to deliver asset management are regularly reviewed and document (e.g. job descriptions) and staff receive the necessary training and support to develop their asset management skills (*HMEP 7*)
9. **Code of Practice Readiness** – Readiness of your borough to adopt the Well Managed Highway Infrastructure: A Code of Practice by Ocotber2018

Asset Management Maturity Assessment
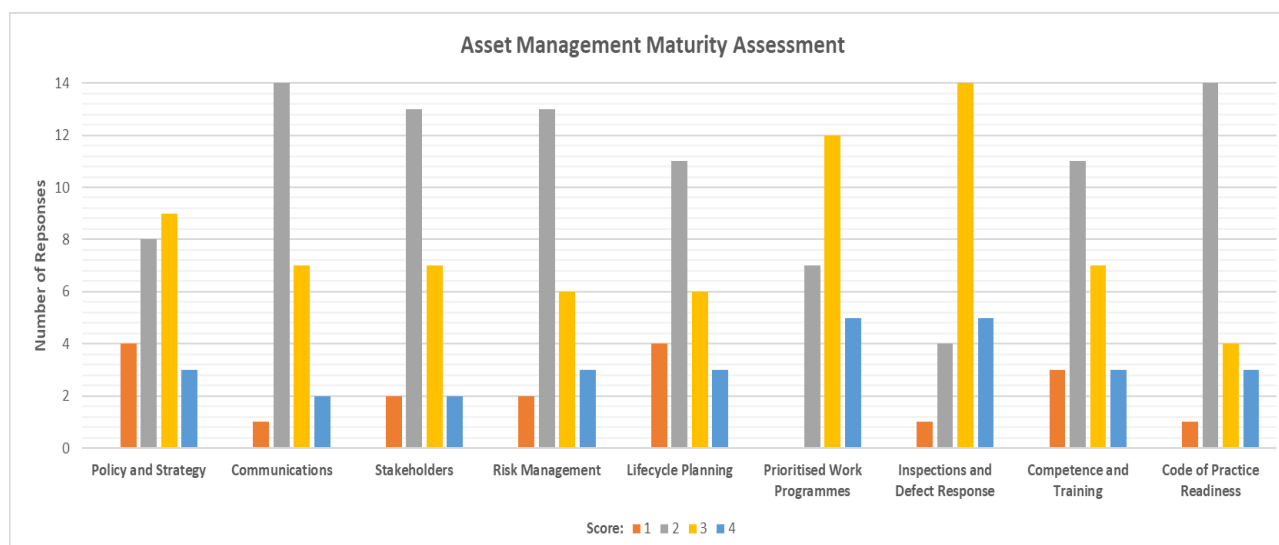
3. SUMMARY

The following table and charts summarise the comparison of headline figures collected thorough the Status Reports in 2017 and 2018.

	Size of Asset	What we are spending (Capital and Revenue) (2017/8) (£ Million)	Steady State (£ Million)	Backlog (£ Million)
Roads	16,675 km	£152.0	£197.0	£223.4
Footways	24,391 km	£61.3	£68.8.	£310.8
Structures	4,327 No. 1,040,628m²	£84.7	£87.20	£173.6
Street Lighting	600,564 Units (243GwH)	£39.5 (capital only)	£47.7	£198.9
Drainage	652,425 gullies	£12.4	To develop	To develop
		£350m	**£413m**	**£907m**

Steady State

Total:
2016/17 | 2017/18
£433m   £413m

-£5.40m (Roads)
-£4.50m (Footways)
-£6.59m (Structures)
-£4.00m (Street Lighting)
TBD (Drainage)

Legend: ■ 2016/17 ■ 2017/18

Backlog

Total:
2016/17 | 2017/18
£730m   £907m

+£95.20m (Roads)
+£49.20m (Footways)
+£41.10m (Structures)
-£8.30m (Street Lighting)
TBD (Drainage)

Legend: ■ 2016/17 ■ 2017/18
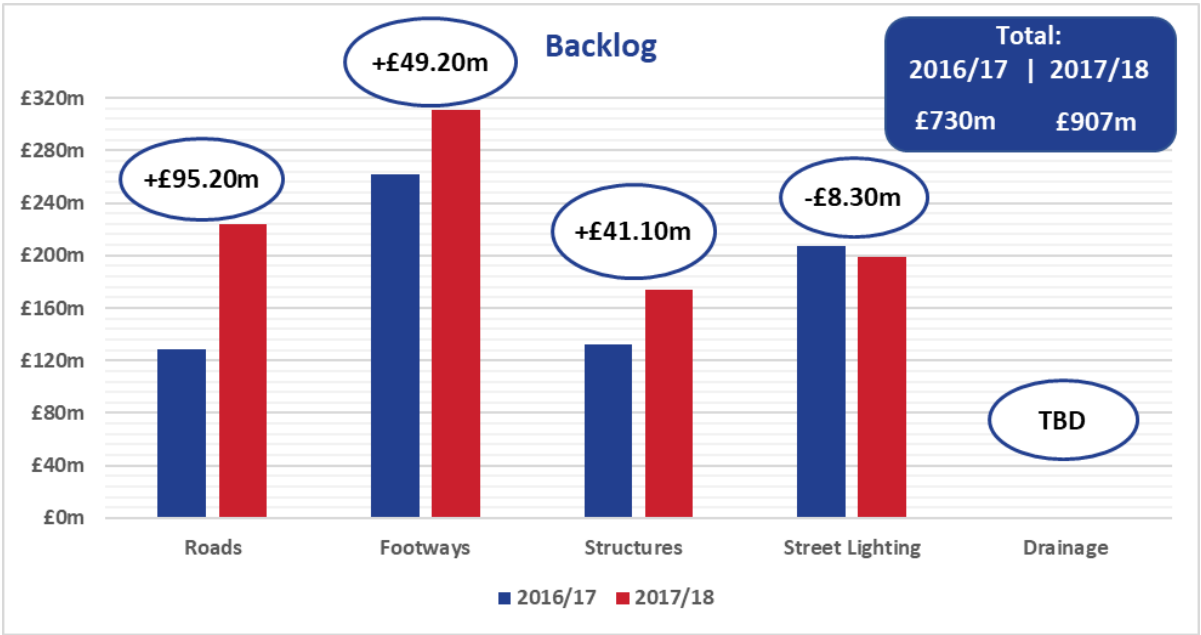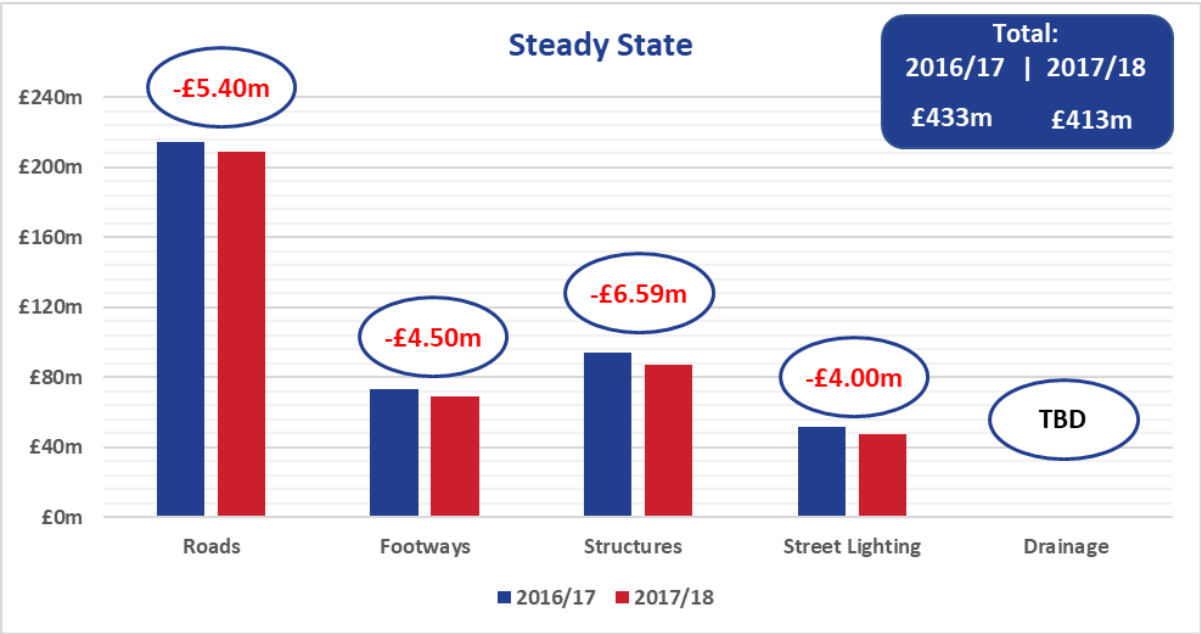
4. RECOMMENDATIONS

LoTAG has a unique position of representing the whole of London, a vibrant centre of economic activity which relies on the health of its highways assets to ensure the success of the city.

Through this project we have been able to fully engage all boroughs to input into the State of the City Report and this momentum must continue. Reporting needs to be slick and feedback useful and quick.

4.1. STATUS REPORTING

- To continue on an annual update basis
- To establish a website where data is hosted and boroughs check/update. This will remove the need for a borough report to be completed each year.
- Status Reporting provides a single source of information
- Remove need for report to be sent out and sent back
- Have cut off of 28th February for data to be updated
- Issue State of City Report in April each year
- At the May 2018 LoTAG conference over 75% of respondents felt the Status Report was worthwhile.

4.2. LoTAG GROUP 2

- Co-ordinate activity across LoTAG and sub-groups
- LoTAG to develop a performance management framework for London. Key headlines for assets to deliver against backed up by appropriate funding allocation models. [Metis can elaborate]. This will form a new approach to benchmarking.

4.3. LoTAG SUBGROUPS

- Sub-groups to develop service life, renewal and maintenance rates to improve steady state and backlog calculating
- LoBEG – greater clarity on the data held in Bridge Station. Mix on BPRN and borough roads – not all boroughs using tool in the same way.
- LoDEG – to consider best approach to developing backlog and steady state calculation that is not data hungry. [Metis has achieved this with other authorities]
- LoTAG Sub-groups to manage their own performance indicators where they benefit from an improvement in service, not a league table approach

LoTAG is well positioned to build on the momentum established through this project and continue to work on a robust reporting process that seek external funding but also helps boroughs sustain internal funding and be best placed to benefit from business rates retention, community infrastructure levy and develop contributions.

Appendix 1 – Spending Comparison

The graphs on the following pages show the spending by borough on a per kilometre basis. There are caveats with this information as some boroughs will have exceptional spends in year. Also boroughs report some assets within bigger asset groups within capital and revenue spend.

The reference numbers for the boroughs are as follows and where a borough is not shown means we did not review the data relating to that asset group.

Authority	Reference
TfL	1
Barking and Dagenham	2
Bexley	3
Brent	4
Bromley	5
Camden	6
City of London	7
Croydon	8
Ealing	9
Enfield	10
Greenwich	11
Hackney	12
Hammersmith and Fulham	13
Harringey	14
Harrow	15
Havering	16
Hillingdon	17
Islington	18
Kensington and Chelsea	19
Kingston upon Thames	20
Lambeth	21
Lewisham	22
Merton	23
Newham	24
Redbridge	25
Richmond Upon Thames	26
Southwark	27
Sutton	28
Tower Hamlets	29
Waltham Forest	30
Wandsworth	31
Westminster	32

The Red text notes data from 2017/18 Status Reporting, Black text from previous years

Combined Spend per km
All Assets - 2017/18

Capital Spend per km
All Assets - 2017/18

Revenue Spend per km
All Assets - 2017/18

Combined Spend per km
Carriageway (ALL) - 2017/18

£,000

Capital Spend per km
Carriageway (ALL) - 2017/18

£,000

Revenue Spend per km
Carriageway (ALL) - 2017/18

£,000

Combined Spend per km
Footway - 2017/18

£,000

Capital Spend per km
Footway - 2017/18

£,000

Revenue Spend per km
Footway - 2017/18

£,000

Combined Spend per km
Structures - 2017/18

£,000

Chart axis values: £40,000, £35,000, £30,000, £25,000, £20,000, £15,000, £10,000, £5,000, £0

X-axis: 14 13 28 29 15 17 19 20 4 18 12 25 23 16 11 7 30 21 26 31 22 6 10 2 8 3 9 27 5 32 24 1

Capital Spend per km
Structures- 2017/18

£,000

Chart axis values: £25, £15, £5, -£5

X-axis: 9 21 20 19 24 5 3 13 8 16 17 31 18 23 27 10 2 12 32 1

Revenue Spend per km
Structures- 2017/18

£,000

Chart axis values: £4, £4, £3, £3, £2, £2, £1, £1, £0

X-axis: 30 31 26 22 5 21 11 15 23 25 28 17 9 3 12 14 24 20 29 19 13 16 10 27 32 2 1 7

Combined Spend per km
Lighting (ALL) - 2017/18

£,000

Capital Spend per km
Lighting - 2017/18

£,000

Revenue Spend per km
Lighting - 2017/18

£,000

Combined Spend per km
Drainage - 2017/18

£,000

Capital Spend per km
Drainage- 2017/18

£,000

Revenue Spend per km
Drainage - 2017/18

£,000