

London Borough of
Enfield

Highway Maintenance Transparency Report

2026/27

Contents

Highway Maintenance Transparency Report	1
Approvals.....	Error! Bookmark not defined.
Contents.....	2
A1 What do we maintain?	3
A2 Road condition	4
A3 Potholes and defects	6
A4 Spend and funding.....	8
A5 Our plans for this year	9
Technical Annex	12
B1 Funding and spending.....	13
B2 Maintenance activities	15
B3 Pothole repairs	16
B4 Highway structures.....	21
B5 Asset management.....	22
B6 Footways and cycleways.....	26
B7 Drainage	27
B8 Skills and training	28
B9 Resilience and adaptation.....	29
B10 Innovation	31
B11 Utility companies.....	33
B12 Highway contracts	34

A1 What do we maintain?

The London Borough of Enfield Council (Enfield) is responsible for maintaining approximately 585km of public highways – with a replacement value of around £1.3 billion (2025), making it one of the Council's most valuable public assets.

Under Section 41 of the Highways Act 1980, Enfield has a statutory duty to maintain the highway network and support the safe movement of people and goods across the borough. This extends beyond carriageways to include footways, cycle infrastructure, drainage assets, street lighting, signs, highway structures, EV charging infrastructure and public rights of way.



585km
carriageways
(roads)



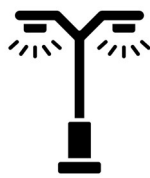
85km
cycleways
(segregated)



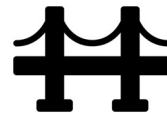
31,000
drainage
gullies



1,115km
footways
(pavements)



30,260
street lighting
columns and
illuminated
signs



340
highway
structures



72km
footpaths,
bridleways
and byways



19,400
unlit road
signs and
street
nameplates



100
Electric vehicle
charging
points

Key challenges

Maintaining this public highway network presents Enfield a number of challenges, including:

- **Ageing Assets**, requiring increasing maintenance and renewal investment.
- **Heavy Traffic Demand** from strategic routes including the A10 and A406, together with freight, bus and commuter movements.
- **Utility and Development Works**, reducing asset life and increase maintenance needs.
- **Climate Change Impacts**, including more frequent extreme rainfall and heat events that accelerate deterioration.
- **Funding Pressures** and significant maintenance backlog highlighted from previous investment modelling exercise shows that the level is below required to achieve a long-term steady state, even with improved investment levels in recent year.

A2 Road condition

What do the condition bands mean?

Enfield undertakes annual condition surveys of its carriageway network using Vaisala RoadAI to understand asset condition, maintenance backlog and support investment decisions. Condition scores should be interpreted as follows:

-  **Green:** The road is in good condition and no further investigation or treatment is required.
-  **Amber:** The road may need maintenance soon.
-  **Red:** The road is in poor condition and should be considered for maintenance.

From 2026/27 onwards, Enfield will comply with the new PAS2161 data standard for condition surveys, ensuring comparable results that enable benchmarking across England.

What is the condition of our roads?

Based on these regular condition surveys, Enfield monitors the condition of its carriageways over time to understand trends and determine the success of its investment. The following chart demonstrates the condition of classified (A and BC) and unclassified (U) roads over time.

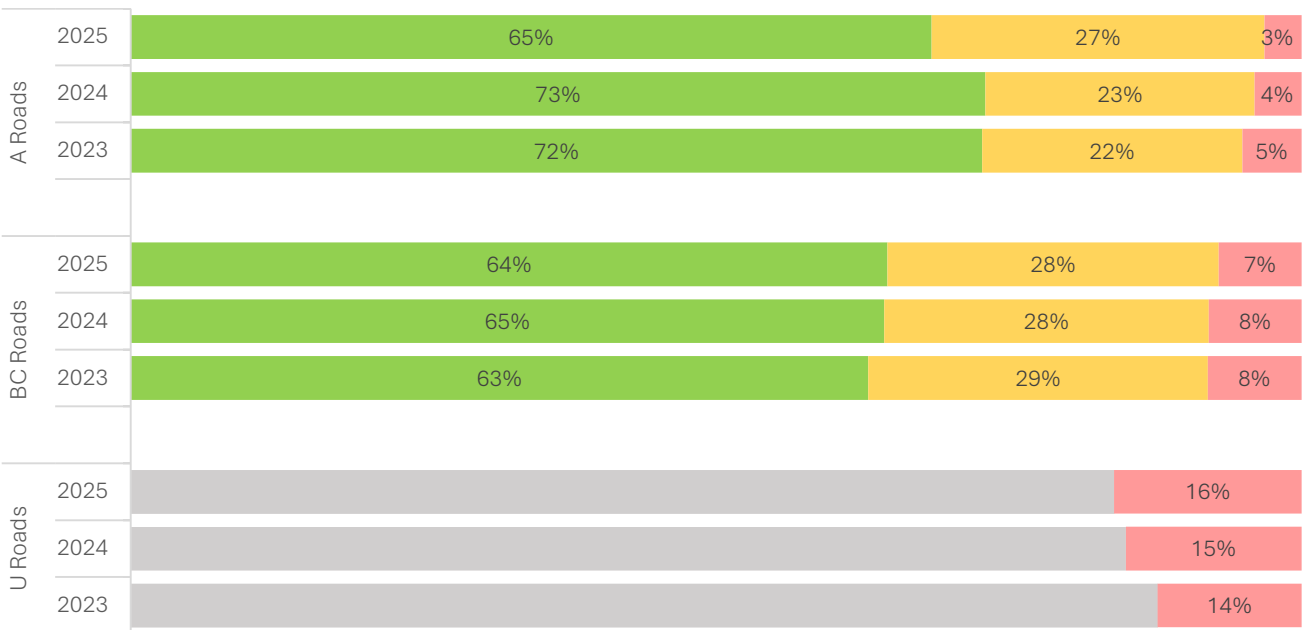


Figure 1: Condition of our roads by classification

With investment levels below what is required to fully address the maintenance backlog, Enfield has prioritised available funding towards the borough's strategic routes, where deterioration would have the greatest impact on network resilience, safety and journey reliability. This has contributed to improvements on the A road network, where the proportion of roads requiring maintenance reduced from 5% to 3% between 2023 and 2025. In contrast, the proportion of U roads requiring maintenance increased from 15% to 16%, reflecting the scale of the local road network and the limited funding available to address lower-priority deterioration. The reduction in preventative maintenance expenditure and greater focus on reactive repairs during this period also limited opportunities to deliver broader network wide improvements. Consequently, overall condition has remained relatively stable, but improvements have been concentrated on higher-priority parts of the network while the maintenance backlog continues to affect local roads.

A3 Potholes and defects

What is a pothole?

Enfield defines a pothole as a depression or void in the road surface that poses a risk to road users. They typically form due to water ingress, freeze-thaw cycles and repeated traffic loading which cause failures and loss of material in the road surface. Potholes which meet investigatory thresholds are risk assessed to determine appropriate actions and schedule repairs.

How are we tackling potholes?

In 2025/26, Enfield repaired approximately 6,085 potholes across the public highway network through a combination of reactive and planned maintenance activities.

Reactive Maintenance:

Enfield operates a risk-based approach to pothole management in accordance with its Highways Inspection Manual, which was updated in 2025 to reflect current industry guidance and the Code of Practice for Well-Managed Highway Infrastructure. Roads are inspected at frequencies ranging from monthly to annually depending on their classification, traffic levels and associated risk. Potential defects are identified through both safety inspections and reports from the public.

Where defects reach investigatory levels, officers undertake a risk assessment considering both the likelihood and consequence of harm. This determines whether intervention is required and the appropriate response time. Lower-risk defects may be monitored or addressed through future planned maintenance programmes rather than reactive repair.

Enfield seeks to undertake permanent repairs at the first visit whenever practical, reducing future maintenance needs and minimising disruption. Temporary repairs may be used where factors such as traffic management requirements, adverse weather, material availability, utility works or wider programme coordination prevent an immediate permanent repair.

Planned Maintenance:

Enfield delivers a planned maintenance programme designed to renew assets before significant deterioration occurs. This asset management approach helps reduce the number of potholes forming, extends carriageway life and provides better long-term value than reliance on reactive repairs alone. Details of the planned maintenance programme are provided in Section A5.

How can the public report potholes / defects?

Members of the public can report potholes and other highway safety defects in Enfield by:

- Submitting an online report via the [Enfield.gov.uk](https://www.enfield.gov.uk) report a problem page
- Downloading and reporting via the [FixMyStreet](#) app
- Calling our emergency out of hours service on 020 8379 1000
- Use our live chat services at [Enfield.gov.uk](https://www.enfield.gov.uk)

What happens after a pothole is reported?

Public reports and enquiries relating to potholes and other highway defects are recorded within Confirm. Each report undergoes an initial desktop assessment to verify whether the defect is located on Council-maintained highway and to determine the level of risk present to highway users, which informs the required response time. Where the defect falls within the Council's remit, a highway inspector undertakes a site visit and completes a risk-based assessment to determine whether intervention is required. Defects identified as being outside the Council's responsibility are referred to the appropriate highway authority, utility company or landowner for investigation and action.

A4 Spend and funding

How much do we spend on highways maintenance?

As mentioned in A1, funding pressures are a key challenge for Enfield. We currently spend £11m total on maintaining our public highways – a breakdown of how this is spent is provided below.

Table 1: Highway maintenance spend by asset class

Asset Class	2024/25	2025/26	2026/27 (projected)
Carriageways	£2,317,804	£2,547,019	£4,092,600
Footways	£2,240,280	£2,246,114	£3,189,400
Structures	£459,238	£1,044,995	£808,000
Drainage	£64,716	£50,000	£50,000
Lighting	£3,123,161	£3,154,819	£2,890,863
Other	£11,462	£10,549	£30,000
Total	£8,216,661	£9,053,496	£11,060,863

Where does our funding come from?

Our highway maintenance budgets are funded from various sources, as follows:

Table 2: Funding sources

Funding source	2024/25	2025/26	2026/27 (projected)
DfT / Government	£310,000	£1,007,000	£3,165,000
Council / Third Party	£7,906,661	£8,046,496	£7,895,863
Total	£8,216,661	£9,053,496	£11,060,863

Enfield's highways maintenance activities are funded through a combination of central government grant and locally allocated council funding.

Since 2025/26, the DfT highways maintenance block grant, allocated directly to local highway authorities, has increased significantly as part of the Government's commitment to record levels of investment, with allocations confirmed through to 2029/30. Enfield will receive up to £11.23m over the next 3 years, of which £7.20m forms a guaranteed baseline element, and an additional £4.03m incentive funding, subject to meeting certain criteria. This provides Enfield with greater funding certainty, shifting focus from reactive-focused regimes to long-term, planned and preventative maintenance.

A5 Our plans for this year

Highway maintenance plans for 2026/27

Enfield is continuing to deliver its various risk-based highways maintenance programmes in 2026/27, targeting investment where it provides the greatest benefit to the travelling public. The following planned maintenance activities are intended to be delivered this year:

- Resurfacing approximately 11.6km of carriageways including a mixture of 30mm, 40mm and 50mm treatments.
- Preventative maintenance to extend the life of approximately 2.4km of carriageways comprising of surface dressing and reclamation.
- Reconstructing approximately 4.9km of footways to ensure an appropriate level of service that promotes active travel, particularly walking and wheeling.

Full list of planned works

Enfield is committed to being open and transparent about where and how it invests in the highway network. Roads and footways earmarked for planned maintenance works in 2026/27, including the type of treatment to be carried out, are set out below:

Surface Treatments

Road	Extents	Length (km)
Bell Lane	Whole Road	0.57
Bramley Road	Westpole Ave to Snakes Lane	0.38
Chase Road	Bramley Rd to No.19 (Ellery Hse)	0.22
Inverness Avenue	Whole Road (TSCS6)	0.47
Picketts Lock Lane	Montagu Road to Meridian Way	0.75

Full Carriageway Resurfacing

Road	Extent	Length (km)
Lea Valley Road	East of Meridian Way	0.83
Nightingale Road	169 to Goodwin Rd	0.52
Clifton Gardens	Whole Rd	0.28
Palmerston Crescent	Southern Half of Road	0.41
Waterfall Road	The Green to Morton Wy	0.62
Freston Gardens	Whole Rd	0.44
Harrington Terrace/ Parkside Terrace	Whole Rd	0.27
Norfolk Road	Whole Road	0.19
Russell Road	Whole Road	0.36
Eaton Park Road	Whole road	0.28
Barrowell Green	96-Firs La	0.32
Rosemary Avenue	Whole Avenue	0.22
Winchmore Hill Road	M&S to Southgate Circus	0.30
Pine Close	Whole Close	0.12
Lakenheath (South)	South from Merrivale to Chase Rd	0.41
Hertford Road	Holmwood Rd to Mollison Ave	0.30
Southbury Road	Eaton Rd to Fotheringham Rd	0.36
Hawthorne Grove	Whole Grove	0.25
Duchy Road	No.6 to No.28	0.20

Bounces Road	St Peters Rd to Hertford Road	0.43
Bridgenhall Road	Whole Road	0.19
St Peters Road	74-128	0.21
Gordon Hill	Whole Road	0.55
Beech Hill Avenue	Whole Road	0.48

Partial Carriageway Resurfacing

Road	Extent	Length (km)
Bush Hill Road	No.44-No.79	0.19
Bramley Rd Slip Road	30-50 & 98 to Westpole	0.36
Beech Hill Avenue	15-21	0.09
Woodall Road	South St to Harlequin House	0.12
South Street	High St to No.18	0.07
Bury Street	Junction Rd to Hertford Rd	0.30
Hertford Road	Mandeville Rd to Holmwood Rd	0.14
Bush Hill	No.4 - No.5	0.11
Browning Road	No.107 to Clay Hill	0.26
Lancaster Road	Westbound Lane Browning Rd to Chase Side	0.13
Elmscott Gardens	Whole Road	0.10
Aldermans Hill	No.138 to Cannon Hill	0.15
Mount Pleasant	Cockfosters Rd to Borough Boundary	0.15
Northfield Road	46-Suffolk Rd	0.15
Leigh Hunt Drive	High St to Private Boundary	0.14
Falcon Road	Falcon Cres to Hobby St	0.15
Waverley Road	16 to Windmill Hill	0.11

Footway Schemes

Road	Length (km)
Perrymead	0.10
Cotswald Way	0.25
Ripley Road	0.08
Suffolk Road	0.39
Curzon Avenue	0.26
Cowland Avenue	0.25
Addison Avenue	0.25
Chase Side	0.40
Percival Road	0.10
Galliard Road	0.18
Ulleswater Road	0.25
Longfield Avenue	0.50
Firs Lane	0.13
Coldham Grove	0.30
Conway Road	0.13
Amersham Avenue	0.25
Firbank Close	0.13
Milton Grove	0.31
Shakespear Avenue	0.29
Hedge Lane	0.18
Hazelwood Lane	0.28

How are decisions made on maintenance plans?

Enfield applies risk-based approach to prioritising highway maintenance investment, ensuring available funding is targeted where it will deliver the greatest benefit.

- **Condition:** Asset condition is the primary factor in determining maintenance, priorities, helping ensure the network remains safe and serviceable.
- **Use:** The network hierarchy reflects the strategic importance of a street based on factors such as traffic flows, public transport routes and key destinations. This hierarchy is used to determine inspection frequencies and support investment decisions across the network.
- **Spend:** Historic reactive maintenance expenditure is considered to identify opportunities where planned maintenance can reduce future repair costs and improve whole-life value.
- **Public Enquiries:** Customer reports and enquiries are used to highlight local concerns and support maintenance planning

Annual programmes are developed using this prioritisation process and coordinated with other planned works to minimise disruption and avoid repeat interventions.

Technical Annex

B1 Funding and spending

Further detail on our funding for highway maintenance and how this is spent is set out below.

Capital Funding

Table 3: Capital funding allocation sources by year

Funding sources		2024/25	2025/26	2026/27*
DfT	Highway maintenance capital allocation	£310,000	£1,007,000	£3,165,000
	Other capital allocated to highway maintenance	£0	£0	£0
Other government capital allocated to highway maintenance		£0	£0	£0
Other capital allocated to highway maintenance		£4,122,375	£4,203,957	£4,314,000
Total capital funding allocated for highway maintenance		£4,432,375	£5,210,957	£7,479,000

Spending

Enfield Council confirms that it understands the answers in this section relate to compliance under the 2026/27 local highway maintenance incentive funding requirements.	Yes
---	-----

Table 4: Total capital and revenue highway maintenance spend

Funding stream	2024/25	2025/26	2026/27*
Total capital spend	£4,432,375	£5,210,957	£7,479,000
Total revenue spend	£3,784,286	£3,842,539	£3,581,863
Total spend	£8,216,661	£9,053,496	£11,060,863

Highway maintenance expenditure is predicted to increase by around £2.5m between 2025/26 to 2026/27. The increase is driven by addition capital investment, supporting the delivery of carriageway resurfacing, surface treatment and other lifecycle-based maintenance interventions identified through Enfield's asset management maintenance plans.

Carriageway maintenance spend

Table 5: Carriageway spend by maintenance type

Maintenance type	2025/26		2026/27*	
	Capital	Revenue	Capital	Revenue
Total planned maintenance	£2,019,649	-	£3,700,000	-
Preventative	£220,000	-	£129,000	-
Structural	£683,745	-	£2,571,000	-
Patching	£1,115,904	-	£1,000,000	-
Total reactive maintenance	-	£168,958	-	£169,600
Temporary repairs	-		-	-
Permanent repairs	-	£168,958	-	£169,600
Other carriageway spend	£226,082	£132,330	£89,000	£134,000
Total carriageway spend	£2,245,731	£301,288	£3,789,000	£303,600

B2 Maintenance activities

Table 6: Road resurfacing and surface treatment quantities

Financial Year	Planned Maintenance			Reactive Maintenance	
	Preventative	Structural	Patching	Permanent	Temporary
2025/26	1.9km	0.7km	3735m ²	8520m ²	3650m ²
2026/27*	2.4km	8.9km	21175m ²	n/a	n/a

Does Table 6 reflect all carriageway-related road surface treatments and repair activities? If no, see further information on any other types of treatments delivered and their extent.	Yes
---	-----

B3 Pothole repairs

This section sets out how Enfield identifies and repairs potholes and other defects in carriageways, and how this activity fits within their wider maintenance approach.

Intervention criteria

Enfield uses risk-based investigatory levels to determine if an investigation is required in order to determine if an immediate response is required to resolve a defect.

Table 7: Defect categories and investigatory levels

Highway Description	Defect Type	Investigatory Level
Carriageway	Pothole	40mm vertical face depth
	Depression	40mm vertical face depth and an area of 2sqm
	Crack	40mm vertical face depth
	Missing / Defective anti-skid	Present
Carriageway (Cycle Lanes and Natural Crossing points)	Pothole	25mm vertical face depth
	Damaged post	Present
Iron works on the Carriageway	Misaligned ironworks on carriageway (1)	Misalignment of 40mm in the vertical face
	Misaligned ironworks on carriageway (2)	Misalignment of 25mm in the vertical face
Modular footways	Misaligned slabs or flags	Misalignment of 25mm
	Rocking slabs or flags	Rocking by 25mm
	Misaligned iron works	Misalignment of 25mm
Bituminous Footways	Pothole	25mm vertical face depth
	Misalignment of surface	25mm vertical face depth
	Tree root damage	25mm vertical face depth
	Cracks	25mm vertical face depth and 50mm in any horizontal direction
Kerbs	Dislodged kerbs	25mm vertical face and 50mm in horizontal direction
	Missing	Present

Verges	Sunken area adjacent to footway edge	Present
Flooding or Standing Water	Standing water on highway	Present
	Substantial running water across highway	
	Property inundation	
Road Markings	Faded or worn markings	Present
Signs / bollards / lights / traffic signals	Damaged or misaligned item causing hazard	Present
	Missing item causing hazard	
	Lights or signal malfunctioning	
	Signal head pointing the wrong way	
	Exposed wiring or damage which could result in cables exposed	
	Missing door to lamp column	
Safety fencing and barriers	Damaged, missing or misaligned item causing hazard	Present
	Item unstable	
Hedges and trees	Unstable tree causing danger of collapse onto highway	Present
	Tree obstruction leading to loss of height clearance over carriageway, footway or cycleway	
	Obstruction due to hedges causing loss in visibility	

Highways General	Street furniture missing / damaged causing hazard	Present
	Oil / debris / mud / stones / gravel causing hazard	
	Obstructions in highway	
	Obstructed sight lines	
	Scaffolding / skips causing hazard	
	Unprotected building materials on highway	
	Abandoned vehicles causing hazard	
Other dangers to the public	Anything else considered dangerous	Present

If a pothole or other highway defect meets its investigatory threshold, the safety inspector will undertake a risk assessment using the following risk matrix – this assessment will take into account the size, location and level of usage of the area to determine a risk score which determines the response time of the defect repair.

Table 8: Risk matrix

Impact	Probability / Likelihood				
	Very Low	Low	Medium	High	Very High
Negligible	1	2	3	4	5
Low	2	4	6	8	10
Noticeable	3	6	9	12	15
High	4	8	12	16	20
Extreme	5	10	15	20	25

Table 9: Defect priority response times

Priority Category	Response Time
Priority 1	Make safe in 2 hours and refer to planned maintenance
Priority 2	Permanent repair within 24 hours
Priority 3	Permanent repair within 7 days
Priority 4	Permanent repair within 28 days
Priority 5	Monitor defect / refer to planned maintenance

Potholes maintenance

Description	Potholes
Number of potholes filled in 2025/26	6,655
of which, Enfield estimates were resolved using the following approaches:	
Planned repair / patching	570
Planned structural	[No data held]
Temporary reactive repairs	1,825
Permanent reactive repairs	4,260

Of the potholes repaired temporary and reactive repairs were all carried out using standard 10mm or HRA mixes, while planned patching programmes were carried out using Roadmender Mastic asphalt.

CAUTION FOR READERS: Authorities have different criteria for identifying potholes and different methodologies for counting how many they have filled or resolved. Summing the figures in the above table across authorities will therefore not provide a reliable estimate of the total number of potholes filled across England.

Prices of pothole interventions

Unit cost (permanent pothole repair)	£45-£95/sqm	Unit cost (temporary pothole repair)	£50/sqm
--------------------------------------	-------------	--------------------------------------	---------

The cost of pothole repairs varies dependent on several factors including the depth of the pothole, the amount of potholes to be treated in the given area and the repair category (CAT 1, 2, 3, etc.). Prices typically range from £45-£95/sqm for shallow treatments of 50mm up to deeper treatments around 150mm. Temporary and make-safe repairs are charged at £50/sqm. Where traffic management is required, including temporary traffic signals, these costs are charged separately.

Defect repair quality

Do you set requirements to those delivering repairs about the longevity of both a) planned repairs/patching, and b) reactive repairs using permanent methods?	Yes
If yes, do you base your material and process specifications on these longevity requirements?	Yes
Do you regularly monitor the appropriateness of the carriageway interventions chosen by your workforce or contractor and the quality of work delivered?	Yes
If yes, do you systematically record information about expected and delivered longevity of repairs?	Yes

Enfield adopts a lifecycle-based approach to highway maintenance, using condition data, network hierarchy and engineering judgement to select the most appropriate treatment at the optimal time. The aim is to maximise asset life, reduce whole-life costs and achieve best value from available funding. Reactive repairs are completed to a permanent standard and are covered by a 12-month warranty. Quality assurance is supported through post-completion inspections, with random checks undertaken on 10% of completed works. Annual AI condition surveys, routine safety inspections and defect monitoring are used to assess repair performance and inform future material and treatment selection.

Public reporting system for defects and other issues

Are defect reports from the public routinely used as an input into maintenance planning and inspection regimes?	Yes
Do you inform users about the outcomes from their feedback, including when no action is to be taken?	Yes

Enfield uses customer enquiries, defect reports and stakeholder feedback to support both reactive and planned maintenance activities. Reports help identify emerging issues, validate condition data and inform inspection priorities, while recurring defects and compliant trends are considered when developing future maintenance programmes.

The Highway defects can be reported through several channels, including FixMyStreet, the Council website, live chat and emergency out-of-hours service. Reports submitted through FixMyStreet can be tracked throughout the investigation and resolution process on the app, while enquiries received from other channels will require a resident to send a request to the Council for an update.

B4 Highway structures

Description	No.
Number of highway structures maintained by Enfield	340
Highway structures with interim measures in accordance with CS470	0
General Inspections (GI)	
Number of structures due a GI in 2025/26 in accordance with CS450	123
Number of GIs carried out in 2025/26	123
Principal Inspections (PI)	
Number of structures due a PI in 2025/26 in accordance with CS450	75
Number of GIs carried out in 2025/26	75

B5 Asset management

This section focuses on asset management practices that underpin how the authority plans, prioritises and delivers highways maintenance. It is intended to provide confidence that decisions are evidence led, risk based and aligned to whole life value, in line with the Code of Practice for Well Managed Highways Infrastructure.

Asset management strategy and policy

Enfield Council confirms that it understands the answers in this section relate to compliance under the 2026/27 local highway maintenance incentive funding requirements.	Yes
---	-----

Enfield has adopted its Highway Infrastructure Asset Management Plan (HIAMP) to set out its strategic framework for how it plans, prioritises and invests in maintenance across its public highway infrastructure. It sets out various aspects ranging from performance objectives and financial strategies to lifecycle plans and sustainability commitments.

Our Highway Asset Management Policy and Strategy can be found at:

https://www.enfield.gov.uk/_data/assets/pdf_file/0025/105991/Highway-infrastructure-asset-management-plan-Roads.pdf

Enfield’s HIAMP was last updated in:	October / 2025
--------------------------------------	----------------

Enfield’s HIAMP was signed off in October 2025 by Councillor Rick Jewell, a Cabinet Member for Environment.

Asset data

Enfield maintains asset inventory and condition data across its key highway asset groups to support evidence-led maintenance planning and investment decisions. The table below sets out the current status of inventory and condition data held for each key asset type.

Table 10: Information on quality of highway asset data held

Asset	Asset inventory	Condition data
Carriageways	Full	Full
Footways and cycleways	Full	Full
Highway structures	Full	Full
Drainage assets	Partial	Partial
Street lighting	Full	Full

Traffic signals	TfL maintain traffic signals across London
-----------------	--

Enfield is working to build a data-driven approach to asset management. This includes annual AI-assisted carriageway condition surveys to support the transition to PAS 2161-accredited condition assessments, a borough-wide footway condition assessment programme delivered through routine safety inspection, and the use of dedicated asset management systems such as BridgeStation for structures. Drainage assets are currently recorded as a partial inventory and condition dataset, as historically the assets were managed by the Street Cleansing team within Enfield. Responsibility is now returning to the Highways team, with work underway to improve asset records and develop a more complete drainage inventory.

Asset data integration and management

Asset inventory and condition data for our key highway assets is primarily managed via:

Discrete spreadsheets or documents held by individual teams	
Multiple digital platforms with limited integration	X
Single digital platform or a set of connected platforms used across service	
Other	

Enfield Council manages highway asset information through a suite of dedicated asset management systems.

- **Confirm** acts as the Council's primary highway management platform, holding asset inventories, inspection records, condition data and works management information.
- **Exor** maintains carriageway, footway and drainage asset records, although the Council has progressively moved away from the system due to its limitations.
- **BridgeStation** manages highway structure inventories, inspections and condition information.
- **EzyTreev** manages the highway tree asset inventories and associated inspection records.
- **Muse** supports gully cleansing programmes and drainage maintenance activities
- **QGIS-based Shapefiles** are used to store and manage street furniture asset datasets.

Lifecycle planning and investment decision making

This section sets out how we use lifecycle planning to inform maintenance investment decisions, rather than relying solely on reactive demand or short-term pressures.

Do you use lifecycle plans for carriageways to support investment decisions?	Yes
Do you use lifecycle plans for footways to support investment decisions?	Yes
Do you use lifecycle plans for structures to support investment decisions?	Yes

Enfield uses lifecycle planning support investment decisions for carriageways, footways and highway structures.

Condition data, safety inspection records and deterioration trends are analysed to identify maintenance needs and determine the most appropriate intervention and timing.

A carriageway investment modelling exercise undertaken in 2024 assessed future network performance under a range of funding scenarios and identified a maintenance backlog of approximately £50m. The outputs were used to forecast future condition and inform long-term investment priorities. For highway structures, inspection and condition data held within BridgeStation are used to prioritise maintenance requirements and support long-term investment planning.

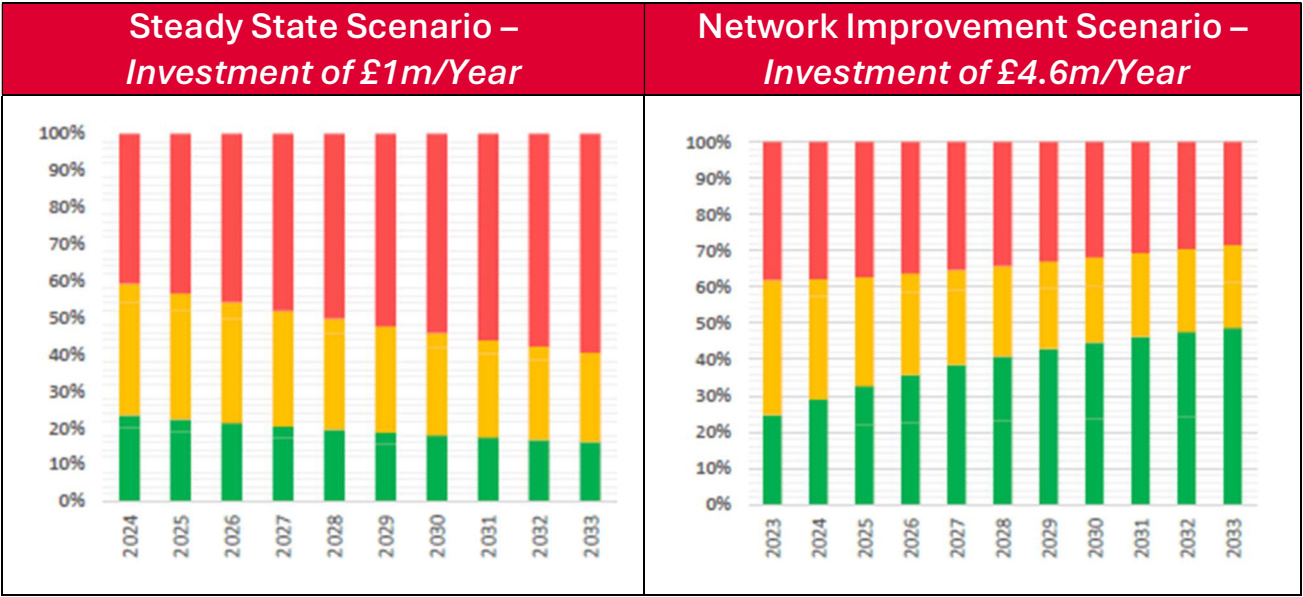


Figure 2 – Enfield’s predicted RAG proportions based on provided funding scenario from 2024 investment modelling exercise

Performance and continuous improvement

This section sets out how we monitor the effectiveness of our asset management approach and use performance information to inform ongoing investment and prioritisation decisions.

Do you have a defined set of key performance indicators (KPIs) to monitor the outcomes of your highways asset management approach?	Yes
Are these KPIs reviewed on a regular basis (at least annually)?	Yes
Are KPI trends used to inform maintenance planning, prioritisation or changes to forward programmes or investment decisions?	Yes

Enfield’s HIAMP details the Council’s approach to performance management and monitoring. Performance indicators are aligned with the Enfield Borough Plan and the Mayor’s Transport Strategy and are used to assess highway asset and service performance. Regular monitoring helps target investment towards areas presenting the greatest risk, need and opportunity for improvement.

Enfield supports continuous improvement through engagement with industry bodies including the London Highway Asset Management Consortium, LHEG, LCRIG, UKRLG, LoBEG and the ADEPT South East and London SMDS Group.

Peer learning has informed low-carbon asphalt trials and Roadmender mastic asphalt repairs, improving the sustainability and value of various schemes.

B6 Footways and cycleways

Enfield maintains an extensive network of footways and cycleways that support active travel across the borough. The authority adopts a risk-based approach, combining reactive repairs with planned maintenance to keep walking and cycling infrastructure safe, accessible and serviceable.

Do you have a defined footway hierarchy (e.g. based on footway function and usage levels) that underpins a risk-based approach to inspection frequencies and maintenance programmes?	Yes
Are priority footways and cycleways included in your winter service (e.g. gritting or snow clearance), and in a routine programme for keeping them clear of overgrown vegetation and debris (e.g. sweeping, cutting back)?	No

Enfield’s footway hierarchy is based on function, pedestrian demand, accessibility requirements and the presence of key destinations such as town centres, schools, healthcare facilities, transport infrastructure and care homes.

Footways are categorised into hierarchy bands A-E, with inspection frequencies determined by risk, usage and network importance. Cycleways are incorporated within the carriageway and footway hierarchy framework, with inspection frequencies aligned to the relevant asset.

Strategic footways and footpaths may be treated during exceptional snow events and prolonged periods of severe weather, while cycleways are gritted if they are adjacent to existing carriageway and footway gritting routes and there are no physical obstructions like cycle lane delineators.

Asset	Structural	Preventative
Footways	0.57km	0.34km
Cycleways	n/a	n/a

Enfield's footway and cycleway maintenance programme is defined in line with the Code of Practice for Well-Managed Highways Infrastructure by categorising streets by function, usage and relative priority.

Routine maintenance activities include vegetation management, street cleansing and defect repairs to keep footways and cycleways safe and accessible. Customer reports, safety inspections and stakeholder feedback are used to identify locations requiring additional maintenance or clearance.

Supporting evidence for this approach includes Enfield’s Inspection Manual (2026), Winter Maintenance Plan (2025/26), HIAMP (2025), inspection records, condition survey data and annual maintenance program information.

B7 Drainage

Effective drainage maintenance is essential to mitigating the risk of flooding, ensuring that the public highway network is resilient and durable, and properties are safe from damage.

Table 11: Drainage maintenance expenditure by approach



Enfield manages its highway drainage network using a risk-based approach that combines planned cyclical cleansing with reactive intervention, using asset data and maintenance records to target resources where they are most needed.

Does your authority utilise a digital drainage management platform, covering asset inventory, inspection history, sensor data, and risk scoring?	Yes
Do you maintain a record of locations where drainage issues are known to cause or contribute to carriageway deterioration or surface water ponding?	Yes
Do you utilise smart sensors or other remote monitoring technologies to monitor performance of your drainage assets?	No

Enfield manages gully cleansing using Map16, which provides a centralised repository for asset inventory, inspection records, defect information and maintenance history.

The system contains the gully maintenance schedule, recording all highway gullies and their cleansing frequencies. Each gully is assigned a unique reference number, enabling its location to be identified and supporting inspection and maintenance activities. Map16 records cleansing dates, inspection records, maintenance history, photographs and condition information, including damaged assets, inaccessible covers and gullies identified as non-runners or otherwise defective.

Enfield, as the Lead Local Flood Authority (LLF A), is responsible for developing, maintaining and monitoring the Local Flood Risk Management Strategy, investigating flood incidents and inspecting significant flood risk assets. The Council’s flood risk management programme is supported through a range of schemes, including the Bullsmoor Flood Alleviation Scheme, the Salmons Brook Natural Flood Management project and the SuDS for Schools programme. Enfield has also delivered numerous wetland and sustainable drainage projects across the borough to reduce surface water flood risk and improve network resilience.

B8 Skills and training

Effective highways asset management relies on a skilled and competent workforce with the knowledge, experience and professional development opportunities necessary to support evidence-based decision making, manage risk effectively and deliver long-term value from highway maintenance investment.

Do you have an up-to-date training and development plan for those responsible for highways asset management in your authority?	No
Do you or your main highways contractors support professional development through a recognised professional training scheme?	No
Does your authority contribute towards the cost of professional membership or professional development required for relevant highways roles?	No
Do you employ a professionally qualified engineer (e.g. Chartered Engineer or equivalent competence) responsible for the management of highway structures?	Yes
Does your authority define competence requirements for key highways asset management roles and take steps to address any identified gaps?	Yes
Do you or your main contractors support early career development in your local area (e.g. apprentice schemes, traineeships or pre-apprenticeship programmes, sponsored qualifications (e.g. HNC/HND, degree, MSc), graduate schemes etc	Yes

Enfield's approach to skills and competency management is set out in Module O of the HIAMP and in the Highway Inspection Manual. Competency requirements are defined for highway asset managers, engineers and inspectors, with role aligned to the UKRLG Competence Framework, with training needs identified through six-monthly Performance Development Reviews. Training records are maintained centrally, supported by refresher, compliance and lone-working training where required. Managers promote additional development opportunities through professional networks, while membership of LCRIG, LoTAG and ADEPT provides access to sector-specific learning. Inspector workshops, competency assessments and periodic reviews help ensure staff remain competent and fulfil their responsibilities.

The HIAMP sets out Enfield's approach to maintaining the skills and competencies required to deliver highway asset management services. Responsibility for reviewing the skills and competencies rests with the Head of Highway Operations, through annual employee reviews and the Council's Behaviour and Competency Framework. Highway structures are overseen by the Council's Principal Engineer for Structures, Fouad Khazen. Where specialist expertise or additional capacity is required, capability can be supplemented through recruitment, contractors or external consultants. Enfield's principal highway maintenance contractors, Riney and Kenson Highways, support early career development through apprenticeship and trainee opportunities.

B9 Resilience and adaptation

Adapting roads to withstand climate pressures

Climate and environmental factors, such as heavy rainfall, prolonged heat, and freeze-thaw cycles, are integral to effective highways asset management, as they influence asset performance, deterioration rates and long-term resilience. Understanding both the impacts of a changing climate and the carbon implications of maintenance activities supports better decision-making, helping us to optimise durability, manage risk and deliver best whole life value from their assets.

Have you updated your asset management policy and strategy to reflect the increased probability of extreme-weather and/or geohazards now and in the future?	Yes
Have you identified your resilient network and agreed this with senior decision-makers?	Yes
If yes, when was this last updated?	2025
Have you identified locations that are repeatedly affected by extreme weather (e.g. flooding, heat damage, storms)?	Yes
Have you measured and benchmarked the greenhouse gas emissions from your highways maintenance service using a recognised industry standard? Or do you have arrangements in place to do so (e.g. ADEPT Carbon Leadership Programme)?	Yes
Have you formally engaged with the ADEPT Live Labs 2 Programme to understand what lessons your authority can utilise to increase the efficiency of your operations and support decarbonisation efforts?	No

Enfield has updated its asset management approach to reflect increased climate and weather-related risks through the HIAMP, Climate Action Plan and Winter Maintenance Plan. The Council has identified a resilient network (Appendix 5 of Winter Plan 2025/26) and reviews its performance through resilience and emergency planning processes. Locations affected by recurrent flooding and extreme weather are monitored through drainage and flood risk management activities, supported by SuDS infrastructure and the Surface Water Management Plan. Asset condition, flood risk, customer reports and environmental performance measures are used to inform investment decisions, helping the Council adapt highway assets to changing climate conditions while maintaining network resilience.

Which climate adaptation measures are currently implemented on your network?	
Targeted drainage upgrades or maintenance	Yes
Natural flood management / SuDS	Yes
Targeted slope / ground stability / landslip mitigation	No
Heat resilient materials or surface treatments	Yes
Tree planting / shading for heat management	Yes
Other	Yes
None of the above	No

Enfield actively manages climate-related risks to the highway network through a combination of planned adaptation measures, emergency planning and cross-service collaboration.

Adaptation measures implemented by Enfield include the maintenance and monitoring of over 31,000 highway gullies, 150 km of drainage infrastructure and SuDS assets, supported by CCTV surveys of critical drainage locations and annual inspections. Climate resilience is further enhanced through the delivery of sustainable drainage and natural flood management projects, including the Salmons Brook Natural Flood Management scheme and a series of wetland creation projects across the borough, such as Firs Farm, Albany Park and Broomfield Park. These initiatives help manage surface water runoff, enhance biodiversity and improve the network's resilience to more frequent extreme weather events.

B10 Innovation

Enfield is committed to continuous improvement in the way its highways maintenance service is planned and delivered, embracing innovative materials, techniques, technologies and processes where these can improve network performance, reduce costs, lower carbon emissions or minimise disruption to road users.

Do your procurement and contracting approaches encourage and reward innovative practice?	Yes
Can you demonstrate that innovative materials and practices are regularly reviewed and, where appropriate, integrated into business-as-usual operations?	Yes
If you have conducted innovation trials, have you shared the findings of these publicly or with professional networks?	Yes

Innovation is embedded within Enfield's asset management approach through the use of condition data, lifecycle planning and investment modelling. Annual network assessments and deterioration forecasting are used to support maintenance planning, treatment selection and funding decisions, helping target interventions at the optimum point in an asset's lifecycle and maximise long-term network performance. Maintenance strategies are periodically reviewed as new treatment options become available, with whole-life cost assessments and investment modelling used to evaluate costs, performance and long-term value.

Enfield has adopted a range of innovative techniques and technologies to support highway maintenance. These include annual AI-assisted carriageway condition surveys to improve asset knowledge, in-situ recycling techniques, asphalt rejuvenators, and trials of asphalt containing recycled plastics, rubber and low-carbon materials. The Council has also explored innovative repair techniques, including Roadmender mastic asphalt, through industry-led initiatives and knowledge sharing groups. Innovation is regularly considered through asset management and service planning discussions, with condition data, lifecycle planning and whole-life cost assessments used to evaluate emerging materials and maintenance techniques before wider implementation.

Examples of innovation adopted

- **AI-assisted carriageway condition surveys** – Enfield commissioned a study in February 2021 to compare Vaisala AI outputs against Detailed Visual Inspections. Following this, Enfield became an early adopter of AI road condition surveys. The Council now undertakes annual surveys across the entire carriageway network, improving asset knowledge and enabling consistent assessment of network condition year-on-year.

In-situ carriageway recycling – Enfield has successfully used in-situ recycling to manage tar-bound materials, encapsulating contaminated arisings within the pavement structure in line with the Environment Agency's preferred approach. More than 80 sites have been treated since 2011, including Chandos Avenue, Lincoln Crescent and Townsend Avenue.

- **Roadmender Mastic Rubber** – Following an initial trial at Willow Road EN1 in 2023, Enfield expanded the treatment through annual programmes. Recent examples include Acron Close, Trent Park Limes Avenue, Chase Side and Connaught Avenue. The treatment provides a cost-effective, low-carbon alternative to conventional patching, utilising recycled rubber from end-of-life tyres and generating zero waste arisings. Carbon assessments indicate up to an 85% reduction in carbon footprint compared with conventional asphalt patching methods.
- **Asphalt Rejuvenators** – Following a successful trial at East Lodge Lane in 2017, annual programmes commenced in 2022/23. Over 66,000 m² of carriageway has been treated to date, extending pavement life and delaying the need for more extensive maintenance interventions. Recent schemes include Birkbeck Road, The Ridgeway (A1005), Pembroke Avenue, Waggon Road, Morley Hill and Wynchgate/Bourne Avenue.

B11 Utility companies

Utility companies and highway authorities carry out a significant volume of works on the public highway each year, with a direct impact on network availability, surface condition and the experience of road users. Enfield works to minimise the disruption caused by these activities through monitoring, enforcement and coordination with utility companies and other stakeholders.

Work to reduce disruption to road users

Do you routinely monitor and enforce utility works quality as part of your streetworks management?	Yes
Have you undertaken a senior-endorsed assessment of whether a lane rental scheme would be suitable for your area?	Yes
Do you seek input from utility companies when determining your highways maintenance programme to help reduce disruption?	Yes
Have you conducted and published a permit scheme evaluation within the last three years?	Yes
Have you conducted a traffic sensitive review in the last three years?	Yes

Enfield operates a permit scheme and actively coordinates highway, and utility works to minimise disruption to road users. In addition to quarterly coordination meeting with utility companies to review planned highway maintenance and street works activities, utility-related defects are identified through routine safety inspections, service inspections and customer reports. Damaged apparatus and failed reinstatements are referred to the NRSWA team for investigation and enforcement. Where defects present an immediate risk, sites are made safe and costs are recovered from the utility undertaker. For major works, Detailed Local Operating Agreements define inspection responsibilities, defect rectification procedures and handover arrangements.

Enfield implemented a borough-wide Lane Rental Scheme in April 2026 following a trial period. The scheme applies to 8.6% of the borough road network and operates alongside the Council's permit scheme. Daily charges apply to works affecting the busiest routes at the busiest times, encouraging more efficient working practices, reducing occupation duration and better coordination of activities. The scheme also generates funding to support highway maintenance and innovation initiatives.

B12 Highway contracts

Enfield is committed to ensuring that highway maintenance contracts are effectively managed and deliver high-quality outcomes for road users. The Council retains in-house technical capability to oversee contractor performance, assess proposed maintenance interventions and monitor delivery against agreed standards, helping to ensure investment is targeted effectively and provides long-term value for money.

Managing contracts effectively

Does your authority retain in-house technical capability to independently assess maintenance interventions proposed by contractors?	Yes
Do you routinely analyse actual unit costs (for example £/m ² of road surface treatments, or £/pothole repair) for core highways maintenance activities delivered under contract and compare them against benchmarks or historic performance?	Yes
Do you have defined KPIs for your highways maintenance contract(s), and are they actively monitored by your authority to manage performance?	Yes
If reactive pothole repairs are delivered by a contractor, do your contracting arrangements incentivise single-visit permanent repairs where it is safe and appropriate to do so?	No

Enfield retains in-house technical oversight through its Head of Highway Operations and Asset management teams, supported by Highway inspection staff. The Council reviews condition data, lifecycle plans, scheme priorities and proposed treatments to determine the most appropriate intervention. Unit cost analysis forms part of programme development and budget management. Pothole repairs are delivered through fixed contract rates, while resurfacing, surface dressing, micro surfacing and pavement preservation treatments such as Reclamite and RhinoPhalt are delivered using agreed schedule rates. Cost and delivery information is reviewed against treatment types and scheme requirements to assess value for money and support annual maintenance programmes.

Highway maintenance services are delivered primarily through contracts with J.B. Riney & Co. Ltd and Kenson Highways. Contract performance is monitored through defined Key Performance indicators, asset management systems, inspections and bi-annual performance review meetings with contractors. KPI monitoring covers both planned and reactive maintenance activities, including programme deliver, quality, compliance with specification, safety performance, responses times and customer-focused measures. Completed works are recorded and verified through confirm, providing assurance that works have been delivered with contractual requirements. Performance data is used to identify trends, drive continuous improvement, inform future procurement decisions, and ensure the council continues to achieve value for money from its highway maintenance investment.