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Local highways maintenance transparency report

The Department for Transport expects all local highways authorities to publish information about their highways maintenance activities to help local taxpayers see the difference that funding is making in their areas. The following provides an overview of highway maintenance activity and asset management in North Yorkshire.

Our highway network

North Yorkshire has one of England's largest and most diverse highway networks, spanning over 9,000 kilometres of roads and encompassing rural lanes, urban streets and major A-roads. This extensive network is essential for connecting communities, supporting tourism, and enabling economic activity across a predominantly rural county.

Our road network measures over 9,200 kilometres, of which 8,600 kilometres is surfaced, the remainder being classed as unsurfaced unclassified roads. Our surfaced network is the sixth largest in England. That is roughly the distance to drive between Harrogate and New Delhi in India.

<i>Lengths of highway, footways and cycleways (km)</i>						
<i>A Road</i>	<i>B and C roads</i>	<i>U roads</i>	<i>Total Roads</i>	<i>Footways</i>	<i>Other Public rights of way</i>	<i>cycleways</i>
934 km	3411 km	4930 km	9275 km	3043km	10000km	116km*

*This includes shared use footway / cycleways

We manage approximately 2,000 bridges. These include a wide variety of structures such as road bridges, footbridges, culverts and retaining walls. These structures can, in some cases, be hundreds of years old and are of a range of designs which can make maintenance more complex. Many of our structures, particularly in our more remote rural areas, are essential for ensuring communities can access key services. Failures to these structures can have a significant impact on highway users, resulting in long diversion routes.

We manage and maintain over 50,000 street lights across the county. The majority of these are energy efficient LED units. We have delivered an extensive column and light replacement programme which has helped to significantly reduce our energy consumption.

Our footways provide a key network for local trips and journeys. These are primarily focussed in our 1,500 towns, villages and hamlets across the county. This is supplemented by an extensive public rights of way network totalling over 10,000km

Highways maintenance spending figures

Highway maintenance spending					
Year	Capital allocated by DfT (£,000s)*	Capital spend (£,000s)	Revenue spend (£,000s)**	Estimate of % spent on preventative maintenance	Estimate of % spent on reactive maintenance
2025/26 (projected)	£60,800	£62,000	£33,743	65%	35%
2024/25	£44,771	£50,500	£32,096	61%	39%
2023/24	£51,353	£49,800	£31,813	61%	39%
2022/23	£39,917	£42,600	£31,773	57%	43%
2021/22	£46,602	£46,700	£28,064	62%	38%
2020/21	£49,016	£45,400	£26,490	63%	37%

*This includes Highway Maintenance Funding, Network North Roads Resurfacing Fund and DfT Pothole funding. Does not include Safer Roads Fund, Active Travel Funding

**This includes all highway revenue funded activity (e.g. reactive repairs, cyclical maintenance and winter maintenance)

Additional information on spending

Preventative (capital) funding is used for the planned upgrade and replacement of our highway assets.

Activities funded from this include:

- resurfacing or reconstruction of roads and footways
- inlay carriageway and footway patching
- surface treatments, including surface dressing and micro asphalt
- replacement of street lighting columns with new, more efficient columns and lights
- upgrading our bridges stock
- installing new and upgrading existing highway drainage systems
- slope stabilisation works to deal with landslips

Reactive (revenue) funding is used to carry out responsive repairs to our highway assets to keep them in a safe condition ahead of planned maintenance activity taking place. Safety inspections are carried out on a regular basis to identify actionable defects. Additionally, we investigate issues that have been raised by customers. Responsive repairs can include filling in potholes, unblocking highway drainage, and dealing with incidents that have taken place on the network.

Revenue funding is also used to carry out routine maintenance activities, such as gully emptying and highway grass cutting, to keep the network in a safe condition. These help to reduce the need for future capital maintenance schemes. Revenue funding also funds our annual winter maintenance activity (gritting).

We estimate that we spend £4.8M per year on reactive revenue repairs to potholes. This represents 15% of our total reactive budget and 6% of our overall highway budget.(based on 2024/25 figures)

Estimate of number of potholes filled				
2020/21	2021/22	2022/23	2023/24	2024/25
7266	7085	8079	11878	11015

*The figures quoted are for the number of work orders raised for pothole repairs. Each work order contains multiple pothole or actionable surface defect repairs.

When selecting schemes for preventative funding, we use information regarding reactive spend to help shape our site selection. If we have known areas where we are regularly carrying out reactive repairs, these will be put forward as a preventative scheme, for example carriageway resurfacing or inlay patching. Additionally, we now allocate a block of capital funding for in-year patching. This allows our operational teams to deliver a range of more permanent repairs to parts of the network that have required multiple reactive repairs.

Using condition data alongside local input from our operational teams allows us to target areas that are consistently requiring reactive repairs.

We continue to focus on lower cost, preventative surface treatments such as surface dressing and micro surfacing. These treatments help to seal up the road surface and prolong the life of the carriageway. We are also extending the use of retexturing treatment where the surface of the carriageway is blasted with high pressure water to clear out bitumen that has risen through the carriageway. All of these approaches help us to treat more of our network.

Condition of local roads

Road condition assessments on the local classified road network in England are currently made predominantly using Surface Condition Assessment for the National Network of Roads (SCANNER) laser-based technology. These surveys are carried out on our A, B and C road networks each year. On our U Road network we use a camera-based survey system which uses AI technology to process the data.

SCANNER surveys use a number of parameters to produce a road condition indicator which is categorised into three condition categories:

- green – no further investigation or treatment required

- amber – maintenance may be required soon
- red – should be considered for maintenance

For A, B and C roads, data for 2020 to 2021 was collected in summer 2020. From 2021 to 2022 onwards, data has been collected over a two-year period. In the first year we collect data from 50% of the network in one direction, with data for the opposite direction collected in the second year. Data is then combined to provide an overview of carriageway condition data. For example, data for 2022/23 is made up of data collected in summer 2021 and summer 2022.

Year	Percentage of A roads in each condition category		
	Red	Amber	Green
2020/21	3.0%	20.6%	76.4%
2021/22	2.9%	20.4%	76.7%
2022/23	2.6%	19.2%	78.2%
2023/24	2.6%	21.0%	76.4%
2024/25	2.8%	24.1%	73.1%

Year	Percentage of B and C roads in each condition category		
	Red	Amber	Green
2020/21	3.3%	27.4%	69.3%
2021/22	2.9%	26.6%	70.5%
2022/23	2.7%	25.4%	71.9%
2023/24	3.0%	26.2%	70.8%
2024/25	3.6%	28.0%	68.4%

U road condition data is collected annually using the Vaisala Road AI carriageway surveying system. This is based on a Coarse Visual Inspection survey, which is less detailed than the SCANNER survey described above. We aim to survey a minimum of 70% of the U road network each year.

Year	Percentage of U Roads in the Red category
2020/21	20%
2021/22	17%
2022/23	11%
2023/24	14%

2024/25	18%
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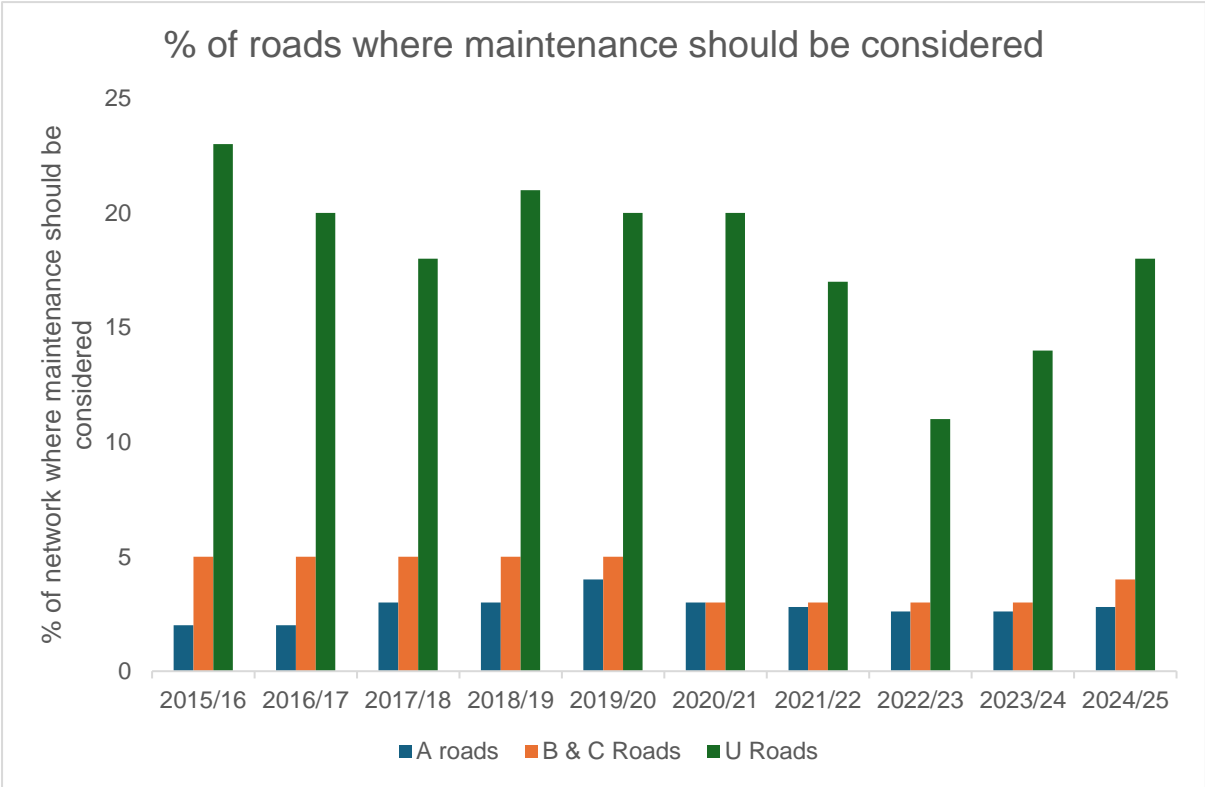
From 2026 to 2027, for all road classifications, a new methodology will be used based on the BSI PAS2161 standard. Local Highway Authorities will be required to use a supplier that has been accredited against PAS2161. This new standard will categorise roads into five categories instead of three to help the government gain a more detailed understanding of road condition in England.

Further details are available on [the road condition statistics page of the government website](#).

Additional information on condition

Additional investment secured between 2016 and 2021 for our C and U road networks was obtained from the York and North Yorkshire Local Enterprise Partnership and ourselves. This funding was used to improve the condition of rural roads linking to our key settlements. This helped to improve overall network condition.

Since 2021, inflationary pressures have resulted in significant increases in costs for highway maintenance activities. While the rate of inflation has slowed recently, costs are still significantly higher than in 2020 to 2021. As such, the amount of work we have been able to complete in recent years is lower than the period before 2020 to 2021. This is beginning to have an impact on overall network condition.



Plans

Overall strategy

We use a strategic, data-driven approach to highway asset management. This ensures that we get the best value from highway maintenance funding. This approach is built around managing, maintaining and improving our highway network.

We use a life-cycle based approach to highway maintenance. We focus our activities on those treatments which stop deterioration and prevent further decline in an assets condition. We only undertake major reconstruction of assets towards the end of their life when preventative treatments are unsustainable and expensive reactive repairs for safety are required.

This approach is framed around the following:

- understanding asset condition - using a range of inspections, surveys and asset usage data
- recognising external influences - these can include costs of materials and processes, innovative technologies and processes and available funding
- awareness of climate change – understanding how this will impact our asset management approach and how we have to adapt service delivery
- understanding the needs and requirements of highway users in North Yorkshire
- risk-based planning - maintenance is prioritised based on asset condition, usage and risk to ensure resources are used effectively
- digital transformation - how we use systems and technology to improve how highway services are delivered, including how systems share information to improve how we make decisions
- sustainability focus - ensuring our approach supports the Highway Maintenance Efficiency Programme, aiming to reduce costs and environmental impact

Delivering Innovation and efficiency

A key focus of our drive to improve innovation and efficiency is through working with NY Highways, a company that is wholly owned by the council and launched in 2021. This model allows for greater flexibility, cost control and faster decision-making compared to traditional outsourcing.

We have worked closely with NY Highways to bring in new processes and treatments on to our network.

Key innovations include:

- A risk-based gully maintenance programme using Kaarbontech software. This approach helps to determine the most appropriate schedule for each gully using the data we have available. As more data is collected, we are able to further refine our programme
- Introducing a wider range of surface treatments across the County, including micro surfacing and in situ recycling (where the existing road surface is recycled and reused on site) and carriageway rejuvenation. All of these treatments are aimed at ensuring we can extend the lifespan of the carriageway as far as possible.
- Use of AI based technology to carry out carriageway condition surveys. Collected data is processed and available to view / analyse in under four hours. Other asset information such as road markings and road signs are also collected automatically.
- Trialling new approaches to verge management that help to enhance biodiversity and reduce longer term requirements for grass cutting.
- Use of new materials for small scale highway repairs.
- Continuing the roll out of LED street lighting across the County to reduce energy consumption and associated costs

Specific plans for 2025/26

Delivery of our 25/26 Programme is well underway with a range of schemes already completed. This includes major resurfacing schemes in Great Ayton, Helmsley and Pickering. Works are planned in Harrogate, Scarborough, Selby and Thirsk over the remainder of the summer. In total we are forecast to spend just under £10million on resurfacing schemes.

Our surface dressing programme, which includes over 200km of roads throughout the County will be complete in mid July 2025. Carriageway patching work is underway on nearly 300 sites across our network, ahead of surface dressing next year.

As part of our ongoing highway safety inspection process, we will continue to identify and repair actionable defects and potholes. We are reviewing how we repair these defects with an increased focus on longer term repairs to reduce the number of return / repeat repairs.

We are resurfacing over 25 footways, with a further 80 having a surface treatment carried out, which helps to prolong their usable life.

We have a £5million budget for the delivery of nearly 30 bridges and structures schemes. These range from installing footbridges on our public rights of way network, to the delivery of a £2million scheme to repair a damaged bridge at Foregill which is the only route through Arkengarthdale in the Yorkshire Dales.

Further details of our programme of works are included within [this report](#)

Streetworks

We operate a Streetworks Permit Scheme which was introduced in 2018. This scheme requires utility companies and contractors (works promoters) to apply for a permit before carrying out any work on our network. This allows us to manage the coordination of timing, location, and required traffic management of works to reduce congestion and inconvenience.

Works promoters are required to submit advanced programmes of work, typically up to six months in advance. This allows planned works to be reviewed and coordinated in advance. For example if we are planning a resurfacing scheme for next year, our streetworks team works with utilities companies to bring forward any of their planned works ahead of the resurfacing.

Permits are reviewed and may include conditions—such as avoiding peak hours, working at night, or coordinating with other nearby projects. We also use an [interactive map](#) to inform the public about planned works and their expected impact.

Regular evaluations of the scheme show that it is delivering strong results, with improved coordination and fewer overruns.

We carry out a range of inspections of works promoters activity to ensure that they are complying with relevant permit conditions, and where applicable we take enforcement action.

We are preparing to launch a Lane Rental Scheme (LRS) this year to further reduce disruption from roadworks on our busiest roads. The scheme will allow the council to charge utility companies and contractors for occupying key parts of the highway during peak times—up to £2,500 per day in some cases.

The goal is to incentivise faster, better-coordinated works and encourage companies to schedule maintenance during off-peak hours. The proposed scheme will cover around 800 km of roads, or 7.2% of the county's network.

Climate change, resilience and adaptation

We are actively working to decarbonise our highway maintenance operations as part of our broader ambition to become carbon neutral by 2030 and carbon negative by 2040.

Measures we are undertaking include

- Increase use of low-carbon materials: The council is exploring the use of recycled and warm-mix asphalts, which require less energy to produce and lay. Additionally further expand the use of in situ recycling and carriageway rejuvenation processes alongside our existing surface treatment programme.
- Continue to deliver LED lighting upgrades: Nearly all of the county's 50,000 streetlights have been converted to energy-efficient LEDs, significantly cutting electricity use.
- Improved works planning: NY Highways, the council's highways company, uses route optimisation and digital scheduling tools to reduce vehicle mileage and fuel consumption.
- Electric and low-emission vehicles: We are gradually transitioning to electric and hybrid models, especially for routine inspections and maintenance tasks

Our network faces a growing set of climate-related risks, particularly from increased rainfall and flooding, extreme temperatures, and more frequent freeze-thaw cycles. These conditions can damage road surfaces, weaken bridges and structures, cause landslips and can overwhelm drainage systems causing surface water flooding. This can be seen on the A59 between Skipton and Harrogate, with numerous landslips and associated closures over the past twenty years. An £82.5million scheme is being delivered to provide an alternative route and ensure network resilience on this key east west route.

Impacts from climate change can be particularly problematic close to rivers and other waterways. This is not solely in our rural areas, with many parts of our urban highways network at risk from flooding.

To build resilience, we are implementing a range of measures including;

- Climate risk assessments as part of our asset management planning process to identify vulnerable infrastructure and prioritise upgrades.
- Working with key stakeholders to develop and implement plans to mitigate the impacts of river based and surface water flooding. (works near County Bridge Malton to improve flood monitoring and pumping capability)
- Drainage improvements and the use of permeable materials help roads better withstand heavy rainfall.