Our highway network

Network Description

As the Highway Authority for Worcestershire, we have a duty under the Highways Act 1980 to maintain the Public Highway Infrastructure within Worcestershire. This means we have a legal obligation to maintain and ensure the safety of public roads and highways within our jurisdiction. This duty extends to ensuring the highway is in a reasonably safe condition for public use, including safe passage during winter weather.

Worcestershire County Council maintains 4,101 km (2,548 miles) of highway network and associated assets. National Highways is responsible for the management of the motorways (M5, M50, M42) and A46 in Worcestershire. To ensure the highway network is well managed and maintained, it is essential that the management of the highways network is carried out in a systematic way, which takes a long-term view of the performance and condition of our highway assets, our corporate objectives, maintenance requirements, customer expectations, service risks and funding availability.

The highway network in Worcestershire is managed with a careful balance between carrying out long-term preventative maintenance repairs and reactive repairs. Reactive repairs are often necessary for safety and other reasons, but like many other authorities, we carry out a risk and databased asset management approach to reduce the need for short-term reactive work as set out in the Government's Code of Practice: Well Managed Highway Infrastructure. We utilise many forms of data when deciding whether to carry out structural, preventative or reactive maintenance. These include condition survey results (both past and present), safety Inspection data, enquiries received from the public and other sources.

Type	A Roads	B and C Roads	U Roads	Total Roads	Footways	Cycleways	Public RIghts of Way
Length (km)	575	1,457	2,069	4,101	3,347	1,805	4,630

Other assets

We also own and maintain other important highway assets across the county such as street lighting (55,068 columns and lanterns), drainage assets (circa 120,000), roadside footways (2,962 km), divorced footways (346 km) and 1,462 structures such as bridges, retaining walls and sign gantries. Trees, verges, road markings and grassed areas are also included as highway infrastructure assets which must be routinely inspected and maintained to a safe standard over their lifetime until they need to be replaced. This data is maintained in Asset Registers. These are reviewed and updated on an ongoing basis in accordance with formal processes, such as Section 38's for road adoptions and when new infrastructure and stock is added to the network. The Asset Registers are also updated with data received from:

1. Reports through safety inspections and routine and reactive maintenance functions.
2. Continued procurement of carriageway and footway treatment surveys of the road and footway network.
3. A rolling programme of surveys of the full network which updates the GIS spatial mapping system.
4. Statutory inspections of highway bridges and structures in accordance with the Government Code of Practice.
5. Adding new assets to the database from new schemes.
6. Updates following completed planned maintenance, reactive maintenance and infrastructure improvement schemes.

We have a specialist team that is responsible for maintaining the Asset Registers, assessing asset condition, co-ordinating the planning process and producing the ongoing programmes of repairs. They also develop and implement action plans on an ongoing basis, as and when appropriate.

Highway maintenance spending figures

Year	Capital Allocated by DfT (£000's)	Capital Spend (£000's)	Revenue Spend (£000's)	% Preventative	% Reactive
2025/26	29,571,000	52,647,200	9,465,166	8%	3%
2024/25	21,121,000	50,494,548	8,286,196	9%	3%
2023/24	24,452,000	50,111,200	7,521,298	9%	3%
2022/23	18,738,000	42,903,600	7,606,071	10%	4%
2021/22	18,738,000	44,328,900	6,921,357	10%	4%

Note: 2025/26 are projected budget figures

Additional information on spending

The safety of the highway network and its critical structures and assets is managed using a risk-based approach where the frequency and type of safety inspection is determined by the asset type. It is important that reasonable care is taken, based on proper assessment of risk, to ensure that appropriate maintenance steps are taken, while at the same time ensuring that public money is spent efficiently. We use three main methods to assess condition:

1. Safety inspections to identify and remedy safety defects.
2. Condition surveys to identify the condition of the highways asset at a network level, including long-term performance and serviceability.
3. Performance and valuation analysis to ensure we meet statutory performance measurement and asset valuation.

The highway network is maintained using the principle of "prevention is better than cure". Proactive preventative measures are more cost-effective and less disruptive to highway users than reactive repairs. Road surfaces and structures are maintained routinely in good condition to prevent major deterioration and the formation of potholes, which are costly and disruptive to fix. Highways maintenance expenditure is either Capital spend or Revenue spend:

Capital spend is primarily for the renewal of highway assets such as resurfacing of roads and footways, maintenance of bridges and retaining walls and repairing damaged drainage systems. In the last five years, we have reconstructed 263 km of footways and resurfaced 221 km of carriageways. The majority of our pothole repairs are also capitalised. Where possible repairs to potholes are repaired to the highest standard by cutting it out and using a patch. Over 75% of identified potholes are repaired like this.

Revenue spend is routine works carried out on a regular basis to keep the highway serviceable, including reactive measures to rectify any reported and identified defects such requiring urgent attention. It also includes the cost of providing street lighting, minor footway repairs and cyclical maintenance such as cleaning drainage systems, grass cutting and critical snow and ice clearance and salt spreading.

Reactive maintenance on highways (fixing defects) is generally more expensive than preventative maintenance. We use our revenue spend on cyclical spend and addressing safety defects on a temporary basis.

Preventive maintenance is typically less expensive than reactive maintenance in the long run, as it prevents costly repairs and can extend the lifespan of the asset. As an effective method of preventative maintenance for roads, we routinely use a technique called surface dressing. A thin layer of bitumen (a tar-like substance) is sprayed onto a road surface, followed by a layer of stone chippings. This creates a waterproof seal, improves skid resistance, and protects the road from further deterioration. Surface dressing is cost-effective to maintain roads that are in good condition and to extend their lifespan. Since 2021, we have surfaced dressed over 800 km of carriageways as an effective method of preventative maintenance.

To ensure effective highway management and co-ordination, our works programmes are carefully planned up to 3 years in advance in a rolling programme, which consider all key customer enquiries, taking action to resolve defects, where reasonably practicable.

Potholes filled

Estimate of number of potholes filled

Year	2020/21	2021/22	2022/23	2023/24	2024/25
Number filled	15,877	14,445	13,622	15,557	16,022

Condition of local roads

A Roads

Year	Red	Amber	Green
2020	5%	33%	62%
2021	4%	31%	65%
2022	3%	24%	73%
2023	3%	23%	74%
2024	4%	29%	67%

Frequency of A Road data collection
Data collection is annually collected using SCANNER Survey via Contractor

B & C Roads

Year	Red	Amber	Green
2020			
2021	4%	28%	68%
2022	4%	25%	71%
2023			
2024	4%	25%	71%

Frequency of B & C Road data collection
Data collection is annually collected using SCANNER Survey via Contractor

U Roads

Year	Red	Amber	Green
2020	21%		
2021	19%		
2022	20%		
2023	24%		
2024	22%		

Understanding U Road condition
U Road data is derived from CVI condition Surveys (Coarse Visual Surveys), taking into account wearing course, structural and edge deterioration.

Road condition assessment

We monitor the condition of A, B and C classified roads using Scanner Surveys on an annual basis and for U roads, we use a CVI survey on an annual basis. We also take into consideration other key factors such as number of reported defects, complaints, third-party claims, public satisfaction and road traffic accident data. We have also developed a financial impact modelling tool that allows us to model the future condition of any class of road in the county using different funding levels that are required. This helps us to understand and manage the risk in terms of asset deterioration in relation to the funding that we need to maintain the road condition and to use the most appropriate cost-effective methods of repair. Across all major asset groups, we use software systems to evaluate historical schemes and condition data. Using this approach alongside DfT funding and the ongoing investments made by the County Council, we have not only maintained a steady state in highway condition have generally improved its condition over the last ten years.

Additional information on condition

Plans

Overall strategy

We use lifecycle planning techniques that monitor and anticipate the future condition of assets and to identify when they need to be repaired or replaced. By understanding the size, safety, condition and value of our assets, we can calculate whole-life costs when managing them throughout their lifespan. By considering all lifespan costs, informed decisions can be made to lead to a more efficient, safe and sustainable transport network and deliver best value for money for investments made at the time.

We use several lifecycle planning tools to make best use of the available funding for long-term objectives by allocating funds to where they will be most beneficial. This approach allows us to:

1. Identify short, medium and long-term investment for highway infrastructure assets and develop an appropriate maintenance strategy.

2. Predict future performance of highway infrastructure assets for different levels of investment and different maintenance strategies.

3. Determine the level of investment required to achieve the required performance.

4. Determine the performance that will be achieved for available funding and/or future investment.

5. Support decision-making, the case for investing in maintenance activities, and demonstrate the impact of different funding scenarios.

6. Optimise costs profiled over the lifecycle, whilst maintaining the required performance.

We use a lifecycle methodology aimed specifically at major assets, which include carriageways, footways, structures, lighting and traffic signals to demonstrate what investment is required to achieve its performance targets and where this investment is not available, and the likely shortfall over a defined period.

Best practice, innovation & efficiency

Our Highways Maintenance Service Contractor, Ringway delivers our highway maintenance services to meet our specified outcomes. Electric vehicles are included in their fleet and state-of-the-art digital products and services are used across the network, including real-time data capture and advanced analytics.

Partnering with Ringway has secured the European Foundation for Quality Management (EFQM) award and formal recognition of ISO 44000 (equivalent to BS11000) for collaborative working. Ringway regularly host national forums for sharing best practices and lessons learned.

As a member of CQC (Customers, Quality and Cost) Efficiency Network, we have an annual assessment of our highway efficiencies on key areas of highway maintenance expenditure.

Every year, we participate in the annual National Highways and Transport (NHT) survey for public satisfaction. This enables us to understand public satisfaction in Worcestershire and identify areas for improvement

Our membership with the Midlands Highway Alliance Plus helps to deliver best value by working with other local authorities to share information and industry best practice.

We fully approve the use of warm mix asphalts when it is available, and using Ringways recycling depot, we produce our own low carbon foam base and Type 1 stone by recycling materials brought in from our highway maintenance sites. These are used in our carriageway and footway schemes and our surface dressing chipping sweepings are re-used.

Our works programmes are carefully planned and coordinated up to 3 years in advance in a rolling programme, which consider all key customer enquiries, taking action to resolve defects, where reasonably practicable.

Specific plans for 2025/26

Our highway maintenance plans for the financial year of 2025/26 will aim to do the following activities:

1. Replace 1,200 concrete street lighting columns with steel columns.
2. Surface dress approximately 200 km of carriageways and resurface 80 km of carriageways.
3. Reconstruct 70 km footways.
4. Undertake minor maintenance to circa 80 structures ranging from graffiti and vegetation removal to masonry repointing and repair works. Larger maintenance will range from bridge expansion joint replacement works to a refurbishment of Kyre Brook Bridge in Tenbury Wells and further masonry repairs to Bewdley Bridge. We will also undertake circa 1,000 bridge inspections.
5. Fix approximately 30,000 defects, including circa 16,000 potholes (in both footways and carriageways).

Streetworks

Worcestershire County Council operates a street works permit scheme. The West and Shires street works permit scheme allows us to manage and control roadworks and other street-based activities across the county. It requires individuals or organizations intending to carry out works on the road to apply for a permit before starting work. The permit scheme aims to minimise disruption to the highway network and ensure that works are co-ordinated and managed effectively and co-ordinated.

Climate change, resilience & adaptation

In July 2021, Worcestershire County Council declared a Climate Emergency. With this declaration, the Council acknowledged the need to act on the causes and impacts of climate change and committed to reducing greenhouse gas emissions to net zero from Council activities and operations by 2050. In practice, this means we:

1. Endorse the Councils ambitious Net Zero Carbon Plan.
2. Continue the work with our partner authorities to review and update all relevant strategies.
3. Have established a Member Advisory Group to assist with the future revision of plan and report annually on actions taken.
4. Have reaffirmed the target of reaching net carbon neutral by 2050 in line with the Governments target.

In support of these aims, the County Council through its supply chain, continues to promote the use of recycled materials and materials that consume less energy in their production. For example, Ringway have in place recycling targets and continue to use low/warm temperature asphalt whenever it can be supplied and used. Worcestershire County Council also challenges potential suppliers how they can assist the Council in achieving the carbon reduction plan as part of the procurement process.

The CQC report for Carbon, demonstrates that Worcestershire County Council made a net carbon-saving of 115,771 tonnes in 2024. Each tonne of carbon saved is a contribution to Net Zero. We also achieved a carbon ration of 6.7 against an average score of 5.0. The higher the figure, means we are being more carbon efficient in managing the network with proactive and preventative treatments. Our Street Lighting contract has also introduced Light Emitting Diode (LED) technology and variable lighting levels that has lower energy consumption. Over the life of this Strategy, Worcestershire County Council will continue to mitigate energy consumption against the planned growth of the street lighting asset.

Climate change poses significant risks to road infrastructure, including increased damage from extreme weather events like heavy rainfall, floods, wind and heatwaves. This can lead to road closures, damage to trees, bridges and culverts, and increased maintenance costs. Addressing these challenges requires proactive measures like incorporating climate data into infrastructure planning, using more resilient materials, and improving drainage systems. For example, we actively monitor rising river levels with real-time flood cameras in strategic locations alongside our major rivers to monitor and subsequently react to rising water levels. The County Council is actively involved in Floor Risk Management Schemes around the county, such as the flood defence scheme on both sides of the river in Bewdley which will be completed later in 2025.

Worcestershire County Council also works closely with the Worcestershire Local Enterprise Partnership (LEP) to develop several flood alleviations schemes around the county to keep key roads open for longer during times of flooding for the movement of traffic. Much of the funding for schemes is coming from Government Local Growth funding via the Worcestershire Local Enterprise Partnership (LEP), reinforcing the importance of keeping the county 'Open for Business' during times of severe flooding.

Worcestershire County Council has developed a Resilient Network in the county which is made up of key routes that are considered essential for economic activity and for key services and access in the event of extreme weather events, major incidents and other disruption. We focus a strong element of our associated maintenance and management activity on the Resilient Network, for example in terms of surfacing and repair, management and resolution of flooding and drainage issues, reaction to major emergency events and coordinated management of street works and congestion matters, where practicable. We treat Resilient Network as a priority in the event of any such incidents and focus our resources on keeping them available for use, where practicable. The Resilient Network is continuously monitored and developed. During extreme

Climate change, resilience & adaptation
cold weather, we focus our resources on gritting the county roads. These are known as the Primary and Secondary gritting routes and these are given priority to maintain economic activity and access to the Strategic Network, key locations, centres of population and services such as hospitals and crematoria during extreme weather. This critical activity is carried out in consultation with neighbouring authorities.

Additional information on plans
Worcestershire County Council plans to maintain its highway network by using an asset management strategy, prioritising safety, reliability, and resilience, and ensuring efficient resource allocation. This includes identifying and managing risks, measuring asset performance, and implementing continuous improvement practices. The council aims to be in the top quartile of road condition, utilising lifecycle optimisation planning principles to model management and funding options. The public can report an issue or make a compliment online using our customer facing portal: Report a road or path issue | Worcestershire County Council Any reported comment can be seen in real-time by our engineers to act accordingly and post an update. This functionality was enabled by a specially developed software interface with our database of reported issues to help improve customer satisfaction. For more information about our activities, please visit these useful pages on our website: Travel and highways | Worcestershire County Council Highways maintenance funding | Worcestershire County Council How we manage the highway network | Worcestershire County Council