

Pothole Action Fund

Nearly 9,000 road potholes had been repaired to end of January – and this figure is expected to rise to around 10,000 by the end of March. This includes potholes addressed through capital funded works such as pre-surfacing patching, wearing course repair and expansive road resurfacing.

Capital funded works are more substantive than basic maintenance, and therefore make the network more resilient to the formation of potholes – observing the premise that ‘prevention is better than cure’.

Works to address potholes in 2020/21 is combining Essex County Council (ECC) funding with the Department for Transport (DfT) funding, resulting in an enhanced repair programme of approximately £5.7 million. This includes £2.5m from the DfT Pothole fund to support a County Councillor led, locally focused surface course repair initiative for 2020/21. This initiative is a continuation of the highly popular and successful project which was undertaken between 2018/19 and 2019/20.

The DfT funding has enabled additional road pothole repairs and wearing course resilience on all road types across Essex. The most appropriate treatments are selected site-by-site but are mainly traditional patching.

Essex Highways complies with best practice, investing in ‘right first time’ value for money permanent repairs. This approach reflects the Highways Maintenance Efficiency Programme (HMEP) guidance, which is an industry led, government promoted initiative encouraging good asset management practice.

Cost at individual sites ranges widely, depending on requirements for traffic management, speed of road, and the most appropriate treatment technique. These costs contribute a share of the total cost of operations to fix potholes which includes materials, labour, plant including vehicles, traffic management, management, insurance, training and other overheads.

ECC funding for pothole maintenance repairs has focused on higher priority, safety related repairs. Lower priority repairs have also been undertaken, however – especially through the County-Councillor-led wearing course repair initiative.



Pothole prevention through a balanced capital road resurfacing programme of preventative and strengthening treatments in 2020/21

Essex takes a ‘preventative approach’ to road resurfacing, whereby capital funded, value for money preventative treatments such as Surface Dressing and Micro Surfacing are applied to seal the road surface to prevent water ingress. Water penetration of the road surface is a major cause of potholes, especially during winter months with its accompanying freeze/thaw cycles. Strengthening treatments, such as machine surfacing and reconstruction, make surfaces more resistant to the formation of potholes, but these are more expensive.

Table 1 below shows the capital road resurfacing works programmed for 2020/21 – most are already completed. The programme includes over 200 linear kilometres of Surface Dressing and Micro Surfacing. These low-cost preventative treatments cover 80% of the total length of works.

Table 1: Roads Capital Resurfacing Programme 2020/21

Treatment Type	Estimated Linear km Length	% Treatment Compared to Total
Surface Dressing	171.3	67%
Machine Surfacing	50.5	20%
Micro Surfacing	32.2	13%
Major Reconstruction	2.5	1%
Total	256.5	100%

Planned length of road resurfacing works is 256 km (160 miles).

Why potholes are unlikely ever to be eradicated completely

Despite the many thousands of pothole repairs and miles of resurfacing undertaken in Essex every year, potholes will still occur. Why?

Water penetrates the road surface through cracks caused by oxidation, ground movement and the effects of heavy traffic. Oxidation is the process whereby the road surface becomes brittle over time simply through exposure to air. Under the freeze/thaw cycles of winter, the penetration of water causes the road material to begin to break down and delaminate, creating voids and other deterioration which we refer to as potholes. Eventually roads need substantial, expensive rebuilding. Many existing roads were not built for today’s heavy, busy traffic.

Essex Highways uses these HMEP techniques:

- **Intervening at the right time** with preventative treatments such as Surface Dressing or Micro Surfacing to prevent potholes forming

- **Getting it right first time** with permanent repairs to reduce the cost of re-visits
- **Providing clarity to the public** – communicating what is being done on the Essex Highways website, Twitter account and ECC news releases.

The inevitability of some potholes in future is acknowledged by the DfT, and we trust we will receive further Pothole Action funding in future years to add to our planned spending, improving our roads for all road users.