

Pothole repairs and carriageway resurfacing – Chiltern area

Chiltern Local Committee

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1 Purpose of report

- a To advise the Local committee about pothole repairs and carriageway resurfacing across the Chiltern area, including methods and costs.

2 Proposed action

- b The Local Committee is invited to NOTE the Report.

3 Supporting information

- c Pothole repair continues to be a major item in the highway maintenance budget. This year in particular, the road network has suffered significant damage caused by last winter's weather. Consequently more money is being spent on pothole repairs.

Causes of potholes

- d Potholes generally appear as a result of the action of traffic coupled with:
 - Deficiencies in the structure of the road, such as cracks, poorly compacted material or foundation defects.
 - Settlement of Statutory Undertaker trenches/excavations
 - Failure of an earlier repair
 - Failure in surfacing or overlay.
- e Surface water greatly accelerates the formation of potholes either by the action of freezing/thawing or by the saturation of the sub-base material and weakening the strength of the road.

Reporting of potholes.

- f The primary method of establishing the need for pothole repairs is through regular highway inspections carried out by staff from the Area Office.
- g All roads are inspected to the frequency established in the County Councils' '*Procedures for Undertaking Highways Inspections and Processing of Insurance Claims*'. This document is reviewed periodically in conjunction with the County Councils Insurers, the most recent review being in April 1999.
- h Inspection frequencies are determined by the type of road within the network hierarchy - heavily trafficked roads receiving the highest frequency of inspection (e.g. A and B roads, main shopping and busy urban footways are inspected monthly).
- i In addition to regular inspections potholes are reported to the Area Office by members of the public, Parish/Town Councils, Councillors etc.
- j Defect cards are also available to report potholes and these can be obtained from the Area Office for that purpose. The defect card is an efficient way of reporting defects of any type and has pre-paid postage.

Repair response times.

- k The severity of potholes determines response times for repair. All potholes considered dangerous are specified with a repair response time of 24 hours. If the pothole is of a lesser severity the repair response time can be either 3 or 7 days.

Method of repair

- l In order to meet the response timescales mentioned above potholes are initially (temporarily) filled using cold blacktop material. The method adopted is called *Throw and Roll* where the material is placed in the hole and rolled using the back wheels of the lorry. This method has been employed for many years and is generally successful. However the success of this method often depends upon how dry the pothole is at the time the hole is filled. In very wet conditions repeat visits can be necessary. Despite the need for repeat visits to some sites, this method is the most cost effective and practical way of delivering a quick fix – in order to reduce hazards to road users.
- m Permanent repairs follow most temporary repairs and are generally carried out during the summer/autumn – using specialist contractors.

- n The permanent repair method is called structural patching. The pothole is broken out to a clean edge and bottom and refilled with hot blacktop material that is compacted using heavy road rollers. Structural patching is permanent but far more labour and plant intensive compared with throw and roll and often requires temporary traffic light control whilst the works are in progress. Therefore the work takes much longer to complete and this is the main reason why this method cannot be adopted for quick response pothole filling.
- o Potholes which form around Statutory Undertaker trench reinstatements are notified to the undertaker responsible.

Actions this year

- p Normally two gangs (two men and a lorry per area) are employed in Chiltern and South Bucks to fill potholes using the throw and roll method. However due to the number of potholes which have developed, this was increased to three and then five gangs during the winter period, but is now back to three gangs. The structural patching programme is now under way.

Carriageway re-surfacing, surface dressing and slurry sealing

- q In addition to the pothole filling methods described above the County Council promotes an extensive programme of full width carriageway re-surfacing, surface dressing and slurry sealing. These processes are very effective in dealing with potholes, but the primary aim of this work is to maintain the structural integrity, seal the surface from the ingress of water, maximise the life and reduce the whole life cost of the road. The resurfacing and surface dressing programmes will be commencing in July/August (see Structural Maintenance report on this agenda).

Expenditure

- r This year a sum of approximately £800,000 will be spent in the Chiltern area on the above processes. This is more than a third of the Chiltern area highway maintenance budget.

- Report ends -