

Position in Relation to the 2012 HMEP Potholes Review:
Prevention and a Better Cure

2016

Document Control

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1. Introduction

In April 2011 the Parliamentary Under-Secretary of State for Transport announced a review into the issue of potholes. A progress report was published in December 2011, and the final report is now available. The review has considered how local highway authorities deal with potholes, as well as wider stakeholder views and implications. It makes 17 recommendations that will, if implemented, provide an improvement in highway maintenance and reduce the number of potholes occurring.

There are 3 key messages in the report:

- prevention is better than cure
- right first time for better repairs
- clarity for the public

The purpose of this document is to outline Thurrock Council's current position in relation to the report and its recommendations and following this, assess any future improvements required in order for Thurrock Council to comply in full.

Alongside each theme, HMEP have provided a number of recommendations, listed in order of priority. These recommendations are shown under each theme in bold, below which, is Thurrock Council's current position in relation to it.

2. Prevention is better than Cure

Economic Benefits of Highway Maintenance - Recommendation 4

“To evaluate and justify the need for investment in maintenance of the local highway network, the Department for Transport should work in conjunction with local highway authorities to develop advice on determining economic costs and benefits.”

The highway network is the largest and most visible asset for which Thurrock Council is responsible. Whilst it is widely accepted that the condition of the highway network has a significant impact on economic development and prosperity, there is limited information available on the contribution that investment in highway maintenance makes to the economic development of local communities.

The Department is currently providing assistance to this through its representation at the Association of Directors of Environment, Economy, Planning and Transport (ADEPT)

Commitment of Highway Maintenance Budgets - Recommendation 5

“The Government should commit to establishing budgets for highway maintenance for the full four years of Comprehensive Spending Review periods. This will provide greater budget certainty for the highway sector. Local

highway authorities should ensure their funding for highways maintenance is aligned to this time period.”

Thurrock Council will produce a four year programme that will be included in the Plan. An indicative 4 year budget allocation has already been set by the Government. Thurrock Council will then take steps to ensure this is caveated with the indicative budget allocation in mind.

Prevention is Better than Cure - Recommendation 6

“Local highway authorities should adopt the principle that ‘prevention is better than cure’ in determining the balance between structural, preventative and reactive maintenance activities in order to improve the resilience of the highway network and minimise the occurrence of potholes in the future.”

The department is currently producing a ‘pothole plan’ which will set out our methods of treatment for repair according to the nature of the defect. The pothole plan will be issued by the end of June 2016. Carriageway defects will be assessed and an appropriate programme of treatment set in order to prevent further deterioration. Types of treatment will include joint sealing, Jet Patching, patching repairs, resurfacing, and haunch repairs.

Informed Choices - Recommendation 7

“Local highway authorities should ensure that appropriate competencies are available to make the right choices when designing and specifying techniques and materials for the maintenance and repair of highways. These competencies can be secured through training, collaboration with neighbouring authorities or external advice.”

Thurrock Council employs the use of a training skills matrix that will determine any skills gaps and training requirements. An appropriate training programme will then be set up to ensure staff have the up to date knowledge and skills required to ensure the most appropriate methods of repair are procured according to the defect. This will also include collaboration with other authorities and keeping up to date with innovative methods of repair.

Guidance on Materials - Recommendation 8

“Comprehensive guidance should be made available in the design, specification and installation of materials for the maintenance and repair of highways, to ensure the use of appropriate materials for the right site. This guidance should be produced by the sector for the sector.”

Guidance on use of materials is driven by the industry. Through close collaboration with the supply chain, discussing the best treatments and methods for each specific scheme, Thurrock Council source reliable information from industry leaders, using the expertise available to efficiently deal with the engineering issue at hand.

Thurrock Council ensures compliance with the DMRB on all schemes, excluding necessary departures from standard.

Co-ordinating Street Works -Recommendation 15

“All parties undertaking works on the highway should share and co-ordinate short and long term programmes of work for up to four years in advance, based on good asset management practice.”

It has been widely accepted that both local authorities and utility companies would benefit from freedom of information regarding programmes of work as it would enable utility works to be carried out in advance of planned highway maintenance. Thurrock Council agrees that authorities should identify a suitable period for the co-ordination of programmes with utility companies.

The 4 year plan will be shared in advance with appropriate stakeholders, including statutory undertakers in order that planned utility works can be programmed ahead of planned maintenance schemes. Improved communication and collaboration with stakeholders will ensure maintenance periods will be adhered to in order to minimise disruption on the road network. A new Thurrock Network Management Plan will be produced, following a review of its Traffic Sensitive Streets and co-ordination of Street Works in general. Innovative methods of repair will be agreed with Utility Companies to further reduce the likelihood of unnecessary reinstatements, leading to much reduced congestion on Traffic Sensitive Streets which is generally caused by Street Works.

Improvements to the co-ordination and management of road works, and road space management in general, have been identified as key goals within the department. This would not only improve the ability to manage highway assets effectively and efficiently, but would also enable the Council to meet its duty better in managing the expeditious movement of traffic across its network and improve public satisfaction.

Minimising Highway Openings - Recommendation 16

“All parties involved in reinstatements must consider the need to minimise long term damage from the installation, renewal, maintenance and repair of utility and highway apparatus through alternative and innovative ways of working. Trenchless technology should be considered as part of this decision making process.”

In order to minimise the use of trenches, Thurrock Council is encouraging the use of 'keyhole' technology, in terms of accessing and servicing utilities. The process includes using a high pressure lance to break the surface material, which is subsequently extracted via suction to provide access to the utilities beneath the surface. This method doesn't require a large area of the highway to be extracted and through using high pressure air, minimising the possibility of causing damage to other utilities through excavation.

It is also important to note that the smaller the excavation, the less likely the previously intact carriageway is to fail in the future, due to the works. This process is more expensive than conventional methods and is currently only being used at 'pinch points' along the network. However, Thurrock Council is keen to promote the use of this method more widely in the future as it is recognised as the more efficient method in many cases.

3. Right First Time

Quality of Repairs and Reinstatements - Recommendation 14

“To drive up standards, a quality scheme similar to a National Highway Sector Scheme should be developed by the sector to cover all aspects of manual surfacing operations, including pothole repairs and reinstatements, and its use specified by local highway authorities and utility companies.”

Thurrock Council will ensure skills gaps and required refresher training will be identified for all in-house operatives and training will be given accordingly. This will include CDM training in accordance with the 2015 regulations. Following this, appropriate KPIs will be set.

Guidance on Repair Techniques - Recommendation 13

“Local highway authorities should consider the guidance provided in the ADEPT report Potholes and Repair Techniques for Local Highways and adopt as appropriate to their local circumstances.”

The guidance contained in the ADEPT report is currently being reviewed. Appropriate elements will be adopted as part of the ongoing transformation of the in-house highway maintenance and improvement delivery service.

Inspection and Training - Recommendation 11

“Local highway authorities should utilise inspection manuals to support implementation of their inspection policies. They should also ensure that highway inspectors are trained, qualified and competent in the identification and assessment of defects, including potholes, through a scheme accredited by the Highway Inspectors Board.”

Thurrock Council is currently developing a Highway Inspection Manual. Any skills gaps will be identified and the appropriate training will be provided in order to ensure the competency of in-house staff.

Technology - Recommendation 12

“Local highway authorities should consider using proven technology and systems for the effective identification and management of potholes.”

Thurrock Council recognises the benefits that technology can bring to the highways service in improving effectiveness and efficiency. A highways management system called 'Symology' has been in operation since 2012 and is used to capture and store information relating to highway condition, customer enquiries and works coordination. The system is used by highway inspectors to record defects and arrange for their repair in the field using mobile devices.

This information is then used by the Highways Operations team to programme remedial works. Other areas of the highways maintenance will be migrated onto the system in the future to improve their effectiveness and efficiency.

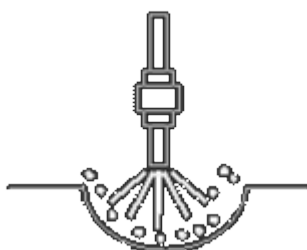
Research and Innovation - Recommendation 17

“The sector will benefit from supporting, co-ordinating, contributing and disseminating research on all aspects of pothole operations. Innovation from such research may continue to provide opportunities for improvement of pothole management and operations.”

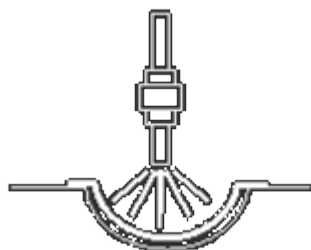
Thurrock Council is consistently looking for new and innovative ways to improve the techniques employed in all aspects of pothole operations, from identification to repair. Working alongside conventional, tried and tested patching techniques, Thurrock Council is currently trialing the use of jet patching as a method of pothole repair. Jet patching provides a cost-effective way of maintaining the wearing surfaces of asphalt roads, car parks, footpaths, industrial areas including repairs of potholes and crack seals.

Jet patching uses a simple four stage process. The problem area is cleaned and prepared, sealed, filled, cured and ready for traffic in one smooth operation. Permanent repairs are made with bitumen emulsion, lasting as long as repairs using hot rolled asphalt. It is also important to note that the emulsion used is environmentally friendly.

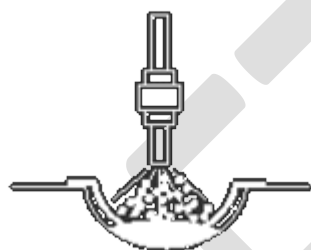
Jet patching boasts minimum traffic delays with most repairs complete in less than 15 minutes. Repairs can withstand traffic use shortly after completion.



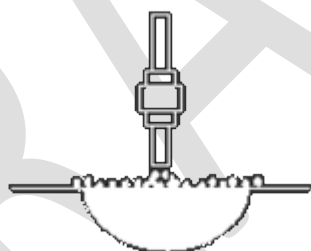
Stage One: Using the high volume, low pressure blower to blow all loose debris from the pothole, it is then cleaned and prepared for an effective patch.



Stage Two: The apparatus now coats the pothole with an asphalt emulsion which seals the pothole and prevents further damage from occurring. This is due to the asphalt emulsion providing a waterproof coating, sealing it from encroaching moisture.



Stage Three: Aggregate is introduced into the pothole. The aggregate is mixed with the asphalt emulsion and blown in to the pothole at high velocity.



Stage Four: After the pothole has been effectively sealed and filled, a light layer of dry aggregate is applied to the patch, preventing the patch from adhering to car tires prior to the emulsion fully curing. The patch is now ready for traffic.

Thurrock Council is also actively training its own staff in order to carry out innovative techniques for pothole repair. One of these techniques, Joint Sealing, is becoming more widely used within Thurrock Council as a preventative measure. Joint Sealing is primarily used to repair cracks and fretted joints in the carriageway up to a depth of 40mm. It is beginning to become a popular technique as it offers a simple, versatile and waterproof system with rapid installation, making it a cost effective preventative solution.

This preventative method uses a waterproof coating to intervene with the cracking at an early stage, preventing any future water encroachment, ensuring the crack doesn't become a pothole. Thurrock Council is in the process of training its own staff to be able to carry out these techniques safely and efficiently so that these issues can be handled without the need for an external contractor.

Finally, Thurrock Council demonstrates its ongoing commitment to the co-ordination of research, innovation and the sharing of good practice through its membership of ADEPT and through its membership with the Eastern Highway Alliance (EHA) where innovation and good practice is shared amongst the other Authorities that form part of the Alliance.

4. Clarity

Public Communications - Recommendation 3

“Local highway authorities should have an effective public communications process that provides clarity and transparency in their policy and approach to repairing potholes. This should include a published policy and details of its implementation, including the prevention, identification, reporting, tracking and repair of potholes.”

Thurrock Council’s Highway Maintenance Policy and Strategy is to be published on the Council’s website and includes a clear policy and approach to repairing potholes.

The Transportation and Highways Service has also drafted an Asset Management Communications Strategy. This strategy aims to assist the Service to:

- Set the Levels of service
- Report on performance and value for money
- Allow interaction on key decisions that affect transport and infrastructure within the borough; and
- Highlight key areas of communication for the Highways Service area.

Public Opinion Surveys - Recommendation 2

“Local highway authorities should monitor public satisfaction with road, footway and cycleway condition and repair annually through the National Highways and Transport Public Satisfaction Survey or their own surveys. The findings can be used to benchmark performance and taken into consideration in local highway maintenance policies.”

A customer satisfaction survey will be undertaken by NHT in August 2016. Thurrock Council should receive the results in October 2016. The NHT Public Satisfaction Survey collects public perspectives on, and satisfaction with, highways and transportation services in local authority areas. The survey asks questions in respect of the following themes:

- Accessibility
- Public Transport
- Walking and Cycling
- Tackling Congestion
- Road Safety

- Highways Maintenance & Enforcement.

The results compare performance between authorities over time using tabular reports, graphs and maps. These results will be used to form future policy refreshers and the way in which the Transport and Highways Service prioritises defects.

Permanent Repairs Policy - Recommendation 10

“Local highway authorities should adopt permanent repairs as the first choice. Temporary repairs should only be used where safety cannot be managed using alternative approaches and in emergency circumstances.”

Thurrock Council is working to ensure temporary repairs are minimised. Permanent patching repairs will be carried out, where possible, to avoid repetitive visits to problem locations.

In-house staff will be trained to assess the safety of each site, determining an emergency situation and advising the best course of action for each specific site.

Definition of Potholes - Recommendation 9

“To provide clarity, local highway authorities should adopt dimensional definitions for potholes based on best practice as part of their maintenance policy. Response times and treatment of potholes should be based on local needs, consideration of all highway users, and an assessment of risk.”

Thurrock Council currently refers to its internal Highways Maintenance Policy document for all dimensional pothole definitions, including information on response times and appropriate treatment methods. However, this is a working document and is currently being updated in order to better advise staff in terms of tailoring response times and treatments to local needs, the variety of highway users and to only commission works upon the appropriate assessment of risk at each specific site.

In terms of public information, Thurrock Council’s website currently informs the public regarding dimensional pothole definitions, but will be updated in line with the Highways Maintenance Policy to include information on appropriate response times.

Strengthen Well-maintained Highways - Recommendation 1

“Well-maintained Highways should be revised and strengthened to include all recommendations of this Review which are relevant to local highway authorities.”

Thurrock Council is aspiring to each recommendation in this review and understands the importance of developing these recommendations as best practice. Where required, the Transportation and Highways Service will impose appropriate and realistic measures in order to achieve this.