Warwickshire County Highways

Highway Maintenance Safety Inspections Manual Addendum

Document History

Date	Issue	Amendment Details	Initials
May 03	1	Issue No. 1	MDA
Nov 07	2	Maintenance Manager/Map Capture defect priority codes added (pages 4 to 12	RPP
Feb 08	3	Speed, direction and walking of adjacent areas added (page 1 paragraph 1)	RPP
Oct 09	4	Page 3 Introduction paragraph 2. Amendment to inspection direction and speed.	MDA
Jan14	5	Page 3 Introduction Clarification of Inspection frequencies, and other information. Page 6 Carriageway amendment to definitive of carriageway defects.	MDA
Jan 15	6	Page 3 Introduction. In service review and additional general information. Pages 6 to 9. In service review of defect thresholds and text	MDA
Jan 15	6a	Page 6 Carriageway Verge Reversion of Category 1 Defect threshold.	MDA

Addendum

Date	Issue	Addendum Details	Initials
Nov 18	1	Implementation of Risk Based Approach phase 1. Addendum to Safety Inspection Manual Issue 6a.	MT

Issue 1
November 2018

1. Introduction

Background

In October 2016 the UK Roads Liaison Group published a revised code of practice titled ‘Well Managed Highway Infrastructure’. The document supersedes the previous Codes 'Well-maintained Highways', 'Well-lit Highways' and 'Management of Highway Structures'.

Currently, the approach to activities on the highway is fairly prescriptive. The new code of practice departs from this prescription and promotes using risk as a basis for decisions, allowing authorities to develop their own, more local approach, based on evidence. Authorities are encouraged to incorporate their corporate view of risk alongside being very much more evidence led in defining highway network priorities.

The new Code of Practice is guidance and is not statutory. It is proposed that the County Council formally adopt the fundamental principles of the Code of Practice.

The following summarises the amendments to the existing safety inspection manual.

2. Maintenance Hierarchy

Warwickshire County Council (WCC) has traditionally identified the general operational characteristics of a road within the designations of the road classification (see Safety Inspection Manual issue 6a paragraph 1.7.1). However, these Classifications do not necessarily represent the role each carriageway and footway plays in providing access to goods, services, shopping and commercial and recreational facilities.

For example, an unclassified road in a busy urban area may carry much more commercial vehicle traffic, that has a much more damaging impact on the road’s structure and play a critical role in the economic vitality of the area, than a rural ‘C’ road.

It is recognised that there are a number of other factors that may require the importance of particular localised areas of the network being upgraded or alternatively downgraded. A road network hierarchy based on asset function is the foundation of a risk-based maintenance strategy as set out in recommendation 12 of the new code of practice.

Recommendation 12 – Network Hierarchy

A network hierarchy, or a series of related hierarchies, should be defined which include all elements of the highway network, including carriageways, footways, cycle routes, structures, lighting and rights of way. The hierarchy should take into account current and expected use, resilience, and local economic and social factors such as

industry, schools, hospitals and similar, as well as the desirability of continuity and of a consistent approach for walking and cycling.

The Maintenance Hierarchy

The carriageway and footway network has been assessed against a range of operational factors which together reflect the level of use and relative importance of localized parts of the highway network.

Carriageway hierarchy

The carriageway hierarchy has been developed in accordance with the table provided in paragraph A.3.3.11 of the new code of practice.

The table provided in the code of practice is intended to be a reference point. Traffic flow data has been utilised to identify sections where usage belies the road classification.

Category	**Type of Road/General Description**	**Description**
Motorway	Limited access -motorway regulations apply	Routes for fast moving long distance traffic. Fully grade separated and restrictions on use.
Strategic Route	Trunk and some Principal 'A' class roads between Primary Destinations	Routes for fast moving long distance traffic with little frontage access or pedestrian traffic. Speed limits are usually in excess of 40 mph and there are few junctions. Pedestrian crossings are either segregated or controlled and parked vehicles are generally prohibited.
Main Distributor	Major Urban Network and Inter-Primary Links. Short - medium distance traffic	Routes between Strategic Routes and linking urban centres to the strategic network with limited frontage access. In urban areas speed limits are usually 40 mph or less, parking is restricted at peak times and there are positive measures for pedestrian safety.
Secondary Distributor	B and C class roads and some unclassified urban routes carrying bus, HGV and local traffic with frontage access and frequent junctions	In residential and other built up areas these roads have 20 or 30 mph speed limits and very high levels of pedestrian activity with some crossing facilities including zebra crossings. On-street parking is generally unrestricted except for safety reasons. In rural areas these roads link the larger villages, bus routes and HGV generators to the Strategic and Main Distributor Network.
Link Road	Roads linking between the Main and Secondary Distributor Network with frontage access and frequent junctions	In urban areas these are residential or industrial interconnecting roads with 20 or 30 mph speed limits, random pedestrian movements and uncontrolled parking. In rural areas these roads link the smaller villages to the distributor roads. They are of

		varying width and not always capable of carrying two-way traffic.
Local Access Road	Roads serving limited numbers of properties carrying only access traffic	In rural areas these roads serve small settlements and provide access to individual properties and land. They are often only single lane width and unsuitable for HGVs. In urban areas they are often residential loop roads or cul-de-sacs.
Minor Roads	Little used roads serving limited number of properties	Locally defined roads.

Footway hierarchy

Footway maintenance standards are unlikely to be reflected by road classification. It is the amount and nature of pedestrian usage that counts, rather than the classification or hierarchy of the road. Local factors such as the proximity of schools and shops are important in this context.

WCC have identified the sectional footway hierarchy based on the risk based approach shown in table 1.

Table 1 Footway hierarchy criteria

Category	Description
Prestige Walking Zones	• The main pedestrianised shopping streets within the main urban centre
Primary Walking Routes	• Urban centre shopping areas with greater than 30 shops • Main shopping street in local town centres with greater than 20 shops
Secondary Walking Routes	• More than 5 shops • Entrance to schools • Entrance to Hospitals • Entrance to large supermarkets • Outside transport Interchanges
Link Footways	• Local shops/retail premises • Religious meeting places • Industrial estates • Residential homes or care homes
Local Access Footways	• Predominately residential streets • Low usage rural footways

3. Inspection Frequency

The hierarchy has been used to formulate the frequency that safety inspections will be undertaken. The frequency of inspection from October 28th shall be:

Table 2 Carriageway inspection frequency

Category	Inspection Frequency
Strategic Route	Monthly
Main Distributor	4 times a year
Secondary Distributor	3 times a year
Link Road	Twice a year
Local Access Road	Once a year
Minor Road (**Rural Cul-de-sacs)**	Once a year

For footways and pedestrian areas, the frequency of inspection will continue to be determined from whether the feature is inspected as part of a driven inspection or as part of a dedicated walked inspection. The frequency as part of a driven inspection will be as above for carriageways and will include where lengths are inspected on foot as part of a driven inspection. The frequency of inspection for dedicated walked inspection will be:

Table 3 Footway inspection frequency

Category	Inspection Frequency
Prestige Walking Zones	Monthly
Primary Walking Routes	Monthly

4. Defect Categorisation

The new code of practice does not specify defined intervention levels where action is required to rectify a defect. It allows local authorities to decide if or what investigation criteria is appropriate and requires a risk based approach to the identification, assessment, evaluation and priority of defects.

Inspectors undertaking safety inspections or responding to reported incidents are required to use judgement in determining response times to observed or reported defects.

All reference to intervention levels in version 6a of the Safety Inspection Manual shall now read Investigatory Level.

The investigatory level is the point at which a risk assessment should be conducted. It must be stressed that these investigatory levels are for purposes of guidance only, and that in particular circumstances, inspection items with a lesser degree of deficiency, may pose an equal or greater safety hazard and will be recorded accordingly.

In addition the new code of practice directs an authority to consider the approach of its neighbours to ensure consistency across local authority boundaries as set out in recommendation 5 of the new code of practice.

Recommendation 5 – Consistency with other Authorities

To ensure that users' reasonable expectations for consistency are taken into account, the approach of other local and strategic highway and transport authorities, especially those with integrated or adjoining networks, should be considered when developing highway infrastructure maintenance policies.

A review of the defect investigatory levels has been undertaken. Paragraph 2.0 of the Safety Inspection Manual will now read:

2.0 Carriageway Running Surface defects

2.1 Category 1 Defect.

Pothole anywhere within the carriageway for which the safety inspector has assessed the defect could result in serious damage to persons or property.

Investigatory Level 50mm and above.

Action by Safety Team - make safe with temporary repair if practical.

Record as a Category 2 defect for inclusion in a future permanent repair programme.

If a temporary repair is not possible so as to leave safe, report as a Category 1 defect.

2.2 Category 2 Defect.

Pothole anywhere within the carriageway for which the safety inspector has assessed the defect could result in minor damage to persons or property.

Investigatory Level up to 50mm.

Action by Safety Team - Record as a Category 2 defect for inclusion in a future permanent repair programme.

Emergency defects will continue to be identified and processed as per paragraph 1.10.3 of the Safety Inspection Manual.

5. Amendment Log

The amendment log summarises the changes required to Safety Inspection Manual issue 6a.

Amendment Number	Date of change	Purpose of Amendment
1	26/11/18	Intervention Level changed to Investigatory Level to facilitate a risk based approach to the identification and categorisation of defects.
2	26/11/18	Carriageway Investigatory level has been reduced. Category 1 reduced from 100mm to 50mm. Category 2 reduced from 50-100mm, to 0- 50mm.
3	1/1/19	Safety inspection frequency based on maintenance hierarchy as opposed to designation of road classification.