Highways Act 1980 Section 58
Highway Safety Inspections

CODE OF PRACTICE

FOR

HIGHWAY SAFETY INSPECTIONS

2020

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PART 1 – STRATEGY

1 INTRODUCTION

1.1. Cheshire East Council's Policy: Highway Safety Inspections

Cheshire East Council will carry out highway safety inspections of all adopted highways in accordance with its Highway Safety Inspections Policy and the Code of Practice for Highway Safety Inspections

1.2. This Document

Safety inspections are an important means of keeping the highway safe for the travelling public. They are also vitally important in court cases for providing evidence that the Council takes a responsible attitude to it's duties as Highway Authority, and to provide a defence against third party claims under Section 58 of The Highways Act 1980. If a member of the public has an accident which can be attributed to the condition of a section of highway, then the Highway Authority maybe liable to pay damages unless it can show that it has taken reasonable care to keep the highway safe; as is it's duty under Section 41 of the Highways Act 1980.

This document has been developed following the recommendations of 'Well Managed Highway Infrastructure: A Code of Practice 2016' (WMHI). Although not statutory, WMHI provides guidance to Highway Authorities on highways management. It promotes the adoption of an integrated asset management approach and establishment of local levels of service through risk-based assessment.

Highway safety inspections are designed to identify, record and prioritise the repair of defects which may present an immediate danger or significant inconvenience to any users of the highway (Emergencies), present a hazard to any highway users or are likely to affect the structural condition of the highway structure or assets (Category 1 Defects). In addition, they are used to identify defects of a lesser magnitude which may be included within future programmes of planned maintenance work (Category 2 Defects) or to indicate that a more in depth service inspection is required.

In accordance with the guidance provided in WMHI, this document forms part of the Council's wider Asset Management Strategy and helps to deliver an asset management led approach. Condition data from Highway Safety Inspections helps to inform future maintenance programmes, supporting the overall objectives of the Council's Asset Management Strategy.

Highway safety inspections are supplemented by other inspections and assessments undertaken in line with national standards and/or good practice, including but not limited to:

- Ad-hoc inspections undertaken in response to specific matters identified through enquiries and correspondence

- Specialist inspections of certain assets within the highway boundary (for example street lighting and highway structures)

- Technical assessments of carriageway condition generally undertaken using machine based equipment (for example SCANNER or SCRIM surveys)

- Structural maintenance visual assessments (CVI or DVI)

- Streetworks inspections

The strategy used by the Council to determine the frequency of inspections follows the risk-based approach for safety inspections promoted in 'Well-Managed Highway Infrastructure A Code of Practice' for highway maintenance management. The Strategy also aligns with the general approach adopted by the Midland Service Improvement Group (MSIG). MSIG is a collective of Midlands and North West English Shire Counties, Shire Unitaries and City Unitaries sharing Best Practice within the disciplines of Highways and Transportation. In addition, consultation has taken place with all neighbouring authorities to ensure cross-border consistency where possible.

This Code of Practice sets the standard for highway safety inspections on the roads of Cheshire East Council. In most cases, following the advice given will be adequate. However, staff engaged on safety inspections will always be expected to apply a risk assessment approach as not every eventuality can be covered in this document. All details of inspections, defects and intended repairs must be recorded together with details of when subsequent repairs are carried out. In addition, inspections for road sections with **no defects** must be positively recorded.

This document describes the safety inspections carried out by trained and competent inspectors. It sets out the standards to be followed on the Borough's highway network. It is to be used by all members of staff who may be required to report defects or to visit sites to check on defect reports from members of the public, police etc.

Updated and amended versions of this document will be published as required.

1.3. Highway Inspections

Highway visual inspections used to record defects in highway condition are of three types:

Safety	To visit all adopted highways to a regular schedule, record actionable defects and initiate action to make safe within the required response times detailed in 3.5.
Detailed	Annually to record hazards plus non urgent repairs that are to be considered for inclusion in planned works.
Structural	To assess the overall structural condition of Sections of the road network so that funds can be allocated where need is greatest.

This Code sets out the criteria for safety inspections. It does not include inspections for ice & snow. Details relating to the Council's winter service are contained in the Adverse Weather Plan.

2 LEGAL FRAMEWORK

2.1. Highway Safety

The Highway Authority has a legal duty to maintain the highway. Under Section 41 of the Highways Act 1980, it may be exposed to the possibility of actions for breach of statutory duty if it fails to maintain a highway.

The policy of regular inspections and the subsequent actions to repair are designed to meet that duty. The records maintained in the 'Confirm' Business Management System assist in establishing the facts and provide evidence of the current maintenance standards.

The regular inspection / recording / retrieval system and the consequent action provide both a formal record of the condition of the highway and the defence for the Highway Authority under Section 58 of the Highways Act 1980. The recording of inspections & investigations made following notification of a possible hazard by members of the public, the Police etc. or on the receipt of a Third Party Claim is essential in establishing a comprehensive defence.

In order to provide a defence against a claim there must be written standards of maintenance, which are in accordance with nationally accepted criteria. The Highway Authority needs to show that it had effective policies and that they were adhered to. The 'Confirm' Business Management System is designed to be a key element in that task.

2.2. Definition of Maintenance and Repair

The ordinary meaning of 'maintain' is to keep something in the state that enables it to serve the purpose for which it exists. Haydon v Kent County Council [1978 Q.B. 343 et 364). It is broader than just matters of repair and keeping in repair. Maintenance is defined in the Highways Act 1980 Section 329(1) as <u>including</u> repair. A partial definition such as this suggests a wider meaning beyond mere repair, although this document is not intended to be a legal analysis for the purpose of any potential claim whether for an alleged statutory breach or in negligence.

Maintenance does not mean improvement. There is no duty on a Highway Authority to improve highways. Thus there is no duty on the Highway Authority to widen an existing highway, even if an accident may be said to be attributable to the amount of traffic using a road which is too narrow. (Highway Law, S.J.Sauvain 1989 p 104 Sect 5-21).

2.3. The Highways Act 1980

The Act expressly provided that the reasonableness of the Council's actions in attempting to perform the duty of maintenance could form a defence to the action.

The burden of proof was to be on the Highway Authority to establish that it had taken such care as was in all the circumstances reasonably required to secure that the part of the highway to which the action related was not dangerous for traffic. This statutory defence is contained in the Highways Act 1980, Section 58. (Highway Law, S.J.Sauvain 1989 p95 Sect 5-03).

The Highways Service has the task of providing for the defence of the Council on the roads within the Borough, by taking action to make safe. Insurance against third party highways claims is carried by Cheshire East Council for all adopted highways in the Borough.

The Council needs to establish that it has acted reasonably, which it would do by the production of adequate documentation and evidence in support of actions taken. In Cheshire East, these include a defined and monitored inspection regime, inspection records, the ordering of works of repair and the checking of compliance with instruction to repair.

2.4. Ensuring a Defence

A claimant must show that the highway was not in a reasonably safe state as a result of failure to maintain. The test is whether the state of the highway was such as to cause a reasonably foreseeable danger.

For the purposes of a defence under subsection (1) of Section 58, the court shall in particular have regard to the following matters:

- the character of the highway, and the traffic which was reasonably expected to use it;
- the standard of maintenance appropriate for a highway of that character and used by such traffic;
- the state of repair in which a reasonable person would have expected to find the highway;
- whether the Highway Authority knew, or could reasonably have been expected to know, that the condition of the part of the highway to which the action relates was likely to cause danger to users of the highway;
- where the Highway Authority could not reasonably have been expected to repair that part of the highway before the cause of the action arose, what warning notices of its condition had been displayed;

I agree this should be re-worded. Keep simple maybe something like this:

The burden of proof is on the claimant to prove that the accident occurred as described and that such caused their losses and damage. It is also on the claimant to prove that the condition of any 'defect' in the highway was dangerous such to breach S.41 of the Highways Act 1980.

If it is established that defect is dangerous then the burden of proof rests with the defendant to establish their S. 58 'special defence' and also to prove any allegations of contributory negligence.

2.5. Statutory Undertakers

Section 58 does not apply to damage resulting from Statutory Undertakers' works or apparatus forming part of the highway surface.

The following sections of the New Road and Street Works Act apply to reinstatements:

Sections 70 & 71. The undertakers must ensure that their reinstatements conform to the requirements of the "Specification for the Reinstatement of Openings in Highways" published in 1991.

Section 72. If a reinstatement is causing a danger, the Highway Authority may carry out appropriate work at the Statutory Undertakers' expense.

The Highway Authority becomes responsible for a permanent reinstatement upon expiry of the guarantee period which is two years (three years in the case of openings deeper than 1.5 metres).

Statutory Undertakers are entitled to rely on the Highway Authority's inspections where they do no inspections themselves.

In Reid v British Telecommunications plc (1987) it was held that the Undertaker was not negligent in relying on a Highway Authority's six monthly inspections rather than itself conducting regular inspections of the condition of its manhole covers. However, if an Undertaker did so rely, it was to be taken to have the same knowledge of their condition as it would or ought to have had if it had carried out its own inspection at the time of the Highway Authority's inspection. To achieve this the Highway Authority must promptly inform the utility of any dangerous defect.

Hazardous defects in Undertakers' apparatus, insofar as it forms part of the highway surface, or reinstatements discovered during an inspection must be recorded and a report sent immediately to the appropriate Street Works Inspector in order that the correct statutory undertaker may be informed.

Swift recorded action may be necessary by the Street Works Inspector by telephone or Email. Any failure to report such defects could place responsibility for damages partly on the Highway Authority. *(Nolan v. North West Water & Merseyside County Council 1982)*.

Action may need to be taken by the Highway Authority if the Undertaker does not respond in accordance with The New Roads and Street Works Act 1991.

"The Nolan Principle" is often cited by Statutory Undertakers and their insurers in the event of a third party claim being made against them. If the principle is upheld the Highway Authority and the Undertaker share the costs on a 50:50 basis. A Nolan agreement may be rejected by the Highway Authority when the Highway Authority has an effective inspection & repair system and can demonstrate that it was in use and that the Undertakers were told of the defect but failed to repair.

2.6. Other Authorities & Owners

An inspection or a visit to a site may reveal hazardous defects in street furniture, overhanging trees etc. which do not fall within the remit of the Highway Authority. Any hazards found must be recorded in the authority's Asset Management System and a report sent immediately to the appropriate engineering supervisor in order that the correct street authority or owner may be informed. Swift action may be necessary by telephone or email. Any failure to report such defects could raise arguments in so far as liability

3. SAFETY INSPECTIONS

3.1 General

Highway safety inspections, defect identification and repair are the responsibility of the integrated service provider and will be delivered in accordance with this code.

Regular inspections of the whole network are made by trained and competent personnel operating either from a slow moving vehicle or on foot, using hand-held tablet devices to record the date, location and nature of defects hazardous to highway users.

The data from safety inspections is transferred to a central database and used as instructions to carry out the repairs or make safe the hazard.

3.2 Network Hierarchy

In accordance with WMHI, the Council has developed a Network Hierarchy in order to prioritise its resources in the most effective way allowing it to better address the various risks and issues associated with the management of the highway network. Each road is categorised in accordance with the criteria outlined in Table 1 of WMHI:

CATEGORY	CRITERIA
Resilient Network	The category of roads to which priority is given for maintenance and other measures to maintain economic activity and access key services.
Strategic Routes	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.
Main Distributors	Routes between Strategic Routes and linking urban centres to the strategic network with limited frontage access.
Secondary Distributors	B and C class roads and some unclassified urban routes carrying buses. 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.
Link Roads	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.
Local Access Roads	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.

Note: Special Interest Areas are defined as town centre areas etc.

3.3 Inspection Regime and Frequencies

In line with national codes of good practice (notably the new Code of Practice, Well Managed Highway Infrastructure, published on 28 October 2016) the characteristics of the inspection regime, including frequency of inspection, items to be recorded and nature of response, are defined following an assessment of the relative risks associated with the formation of defects within the highway boundary.

The inspection regime is applied and recorded systematically and consistently. As well as information relating to defects, all inspections must also therefore record:

- time of inspection and defect identification;
- weather conditions;
- any unusual circumstances of the inspection;
- person(s) conducting the inspection.

Frequencies for safety inspections of individual network sections are based upon the Network Hierarchy adopted by the Council, details of which can be found on the Council's website.

Although the Network Hierarchy will be the main determinant of inspection frequency, site specific factors may merit a decision to temporarily or permanently increase or reduce the frequency in a specific location (for example to mitigate the risk of unusually high defect levels or accident rates, or with consideration for vulnerable users).

Frequencies of Inspection for each Network Hierarchy Category

Hierarchy Classification	***Frequency of safety inspection per year***	***Hierarchy Category***
S	**12**	Special Interest Areas
1R	**12**	Resilient Network
2	**6**	Strategic Road
3A	**6**	Main Distributor Road
3B	**3**	Secondary Distributor Road
4A	**3**	Local Link Road
4B	**2**	Local Access Road

Safety Inspection Frequency for Carriageways and Footways

Cycleway Hierarchy Classification	*Frequency of safety inspection per year*	*Hierarchy Category*
1	**As per carriageway frequency**	Cycle lane or on carriageway signed cycle route - contiguous with the carriageway
2	**2**	Cycle Track, Shared Cycle/Footway – a route for cyclists remote from the public footway or carriageway or a shared cycle/pedestrian path
3	**1**	Cycle trails - Leisure routes through open spaces which are the responsibility of the highway authority to maintain

Safety Inspection Frequency for Cycleways

Notes

- Total Number of Inspections in a year is shown in bold
- Inspections will ideally be scheduled evenly across the year however in time of adverse weather the time between inspections may vary
- Safety inspections will normally be carried out from a slow moving vehicle. Where the inspector determines that, in their reasonable opinion, the inspection cannot be undertaken and defects effectively observed from the vehicle, the inspection will be carried out on foot;
- Safety inspections will be carried out during daylight hours and where weather conditions do not create poor visibility;
- Footway inspections will be carried out on foot when remote from carriageways;
- Cycleway inspections will be carried out on foot when remote from carriageways;
- Driven inspections will be carried out by two people, with the passenger being the inspector;
- Dual carriageway inspections will be carried out in both directions.

- The table defines the minimum frequency at which inspections will be undertaken. Additional inspections may be planned in response to user or community concern, requirements for monitoring of structural concerns, as a result of incidents or in response to extreme weather conditions.

Arrangements are made to review the inspection, assessment, frequency and recording regime at least annually. This review will be considered at a senior management level within Cheshire East Highways (CEH) and will consider:

- changes in network characteristics and use;
- completeness and effectiveness of data collected;
- trends within defect formation;
- success of repair programmes;
- the need for changes/amendments/additions to the inspection regime derived from risk assessment.

As a result of such reviews, proposals may be put forward to amend the inspection frequency or methodology should such alterations be deemed to be beneficial. Any such amendment will be considered, proposed to CEC and Cabinet Member for agreement and, if implemented, recorded as such in formal minute.

Consideration will be made to reviewing and updating details of any Asset Management Plans as a result of any such changes.

3.4 Defect Categories

Having identified a defect, it is necessary for the Inspector to undertake a risk-assessment which informs the decision on what remedial action is required and the required response time.

Once the defect & response time are determined, the defect is recorded and given one of three categories:

- Emergency - those that require prompt attention because they represent an immediate hazard with potential for significant damage, serious injury or risk to life;
- Category 1 - those that require priority attention because they represent a potential risk to road users or to the integrity of the highway asset;
- Category 2 - all other defects.

Emergency defects will be corrected or made safe at the time of the inspection, if reasonably practicable. In this context, making safe may constitute displaying warning notices, coning-off or fencing-off to protect the public from the defect or other suitable action. If the inspection team cannot make safe the defect at the time of inspection then they will instigate the relevant emergency call procedures to ensure appropriate resources are mobilised to make the defect safe. It may be necessary for the Inspector to remain on site until the Response Team arrive and the defect can be made safe. These procedures aim to ensure initial attendance to the defect within 1 hour of notification (1.5 hours outside normal working hours of 0800 hours -1700 hours Mon – Fri).

Category 1 defects may also be corrected or made safe at the time of the inspection, if reasonably practicable. If it is not possible to correct or make safe the defect at the time of inspection then an appropriate repair will be carried out within 2 working days of the identification of the defect.

Category 2 defects are those which are deemed not to represent an immediate hazard and which can be repaired within longer timescales.

Category 2 defects are categorised according to priority: High (Cat 2H), Medium (Cat 2M) and Low (Cat 2L), with response times defined within Section 3.3 ‘Time to Make Safe’. Guidance on appropriate classification of defects is provided in Inspectors Manual, Part 2 of this Code. The Manual provides examples of defects which may be encountered on the network and potential categorisation. However, on-site assessment will always need to take account of particular circumstances.

The Inspector will also take into account the likelihood of further deterioration before the next scheduled inspection, and where this is a considered a high probability, a higher defect classification may be determined.

Notes:

- During periods of severe weather conditions it may not always be possible to meet the target response times for both highway safety inspections and defect repair. In such circumstances, evidence of the best use of resources should be considered as mitigation against any claims.
- Full details of categorised highway defects and response times are contained within Part 3 - Detailed Guidance Codes.

3.5 Response Times

Clearly some defects need to be treated more urgently than others. In order to record how quickly action needs to be taken after an inspection, a “category” is applied to each individual defect.

Cheshire East Category	Description
E	Repair or make safe within 1 hour of notification (1.5 hours outside normal working hours of 0800 hours -1700 hours Mon – Fri)
1	Make safe/repair within 2 working days
2H	Make safe/repair within 5 working days
2M	No temporary repair necessary. Attend and permanently repair within 20 working days
2L	Consider repair within future programmes of planned maintenance works

The time scale for each category commences when the Highway Safety Inspector identifies and records the defect

3.6 Defect Risk Assessment

The principals of a system of defect risk assessment for application to highway safety inspections are set out below. This has been designed following the guidance provided in ‘Well Managed Highway Liability Risk’, produced by the Institute of Highway Engineers. Any item with a defect level which corresponds to, or is in excess of, the Investigatory Levels described in Annex 1, is to be assessed using the risk assessment matrix and guidance within the Inspectors Manual. Risks will be assessed with consideration to a wide variety of factors including location, usage, local amenities, vulnerable users, public transport etc.

A 4x4 matrix is used to allow sufficient flexibility when assessing risk and determining the appropriate level and speed of response.

By way of example that risk assessment process might be as described below:

Impact

The impact of a risk occurring is measured on a scale of 1 – 4 (1 lowest, 4 highest) the following table gives guidance:

Impact Ratings

Impact rating	Score	Description	Possible Indicators
High	4	The hazard presented by the defect, or due to the short term structural deterioration in the defect, could result in serious injury.	Highway users coming into contact with the defect could result in serious injury or damage to property. Highway users will instinctively react to avoid the defect, presenting a hazard to themselves and to others. Location may present specific hazards.
Medium	3	The hazard presented by the defect, or due to the short term structural deterioration in the defect, could result in injury.	Highway users coming into contact with the defect could result in injury or damage to property. Highway users will instinctively react to avoid the defect, presenting a hazard to themselves and to others
Low	2	The Hazard presented by the defect, or due to the short term structural deterioration in the defect, could result in minor injury.. If untreated the defect will contribute to the deterioration in the overall condition of the highway asset. The defect is likely to deteriorate further before the next safety inspection.	Most impacts will not result in any injury or damage to property. Highway users are unlikely to react to avoid the defect and the impact will not interrupt their passage. The defect will be felt and recognised as a defect by most highway users. If untreated the defect will accelerate the local deterioration of the highway asset.
Very Low	1	The hazard presented by the defect, or due to the short term structural deterioration in the defect, is unlikely to result in injury, but the defect will contribute to the deterioration in the overall condition of the highway asset. The defect is unlikely to deteriorate further before the next scheduled safety inspection.	The defect will be recognised by Highway Safety Inspectors as requiring attention, but is unlikely to be felt and recognised as a defect by most Highway users. The defect is very unlikely to cause injury or damage to property.

Probability

The probability of a risk occurring is measured on a scale of 1 – 4

Probability Ratings

Probability Ratings	Score	Description	Possible Indicators
High	4	More than a 75% chance of occurrence.	High use by all road users, higher category roads. Vulnerable users and/or different transport modes regularly pass through the site. The location and nature of the defect, as well as the topography of the site will mean that it is difficult for the defect to be avoided Forward visibility may be compromised.
Medium	3	40 – 75% chance of occurrence.	High use by all road users, higher category roads, but vulnerable users and/or differing modes are less likely to share the highway at this location. Responsible highway users may be able to recognise and take action to mitigate the impact of the defect. Forward visibility is good.
Low	2	10 – 40% chance of occurrence.	Use by all users is moderate or low. Vulnerable users and/or different transport modes are unlikely to share the highway at this location. The majority of responsible highway users will be able to recognise and take action to mitigate the impact of the defect.
Very Low	1	Less than 10% chance of occurrence.	Use by all users is very low. The speed differential between users is very likely to be low. The majority of responsible highway users will be able to avoid the defect.

Risk Probability

The probability of a risk occurring is assessed as follows:

- Very low probability;
- Low probability;
- Medium probability;
- High probability.

The probability is quantified by assessing the likelihood of users, passing by or over the defect, encountering the risk. As the probability is likely to increase with increasing vehicular or pedestrian flow and local amenities, the network hierarchy and defect location are important considerations in the assessment.

Risk Impact

The impact of a risk occurring, as adopted by CEC, is assessed as follows:

- Very low impact;
- Low impact;
- Medium impact;
- High impact.

The impact is quantified by assessing the extent of damage likely to be caused should the risk be realised. The main consideration of impact is the severity of the defect, although likely consequences should also be taken into account. Other variables such as road speed may also affect the likely impact.

Risk Factor

The risk factor for a particular risk is

Risk Factor = impact score x probability score.

It is this factor that identifies the overall seriousness of the risk and consequently the appropriateness of the speed of response to remedy the defect.

Risk Management

Having identified a particular risk, assessed its likely impact and probability and calculated the risk factor, the category and the timescale to rectify the defect is either defined as an Emergency response, Category 1 response or allocated to one of the Category 2 defect types (Low, Medium or High).

To assist the inspector, a risk matrix is included within the Inspectors Manual, which considers the appropriate classification of defects when considering impact/severity against probability:

		PROBABILITY			
		Very Low (1)	Low (2)	Medium (3)	High (4)
IMPACT/SEVERITY	Very Low (1)	Cat 2L (1)	Cat 2L (2)	Cat 2M (3)	Cat 2M (4)
	Low (2)	Cat 2L (2)	Cat 2M (4)	Cat 2H (6)	Cat 2H (8)
	Medium (3)	Cat 2M (3)	Cat 2H (6)	Cat 1 (9)	Cat 1 (12)
	High (4)	Cat 2M (4)	Cat 2H (8)	Cat 1 (12)	Emergency (16)
	Emergency	Emergency (16)	Emergency (16)	Emergency (16)	Emergency (16)

Risk Matrix for defect identification

Score of 1 to 2	**Cat 2L**
Score of 3 to 4	**Cat 2M**
Score of 6 to 8	**Cat 2H**
Score of 9 to 12	**Cat 1**
Score of Over 12	**Emergency**

Scoring mechanism within Risk Matrix

**Note: It should be recognised that an emergency response can be requested for any high impact defect regardless of road hierarchy. Examples may include fallen trees, subsidence or flooding, missing covers etc.*

Investigatory Levels

It is recognised that on any highway network, a multitude of minor defects will exist which do not pose any risk to either the safety or the integrity of the highway and for which it may be impractical and inefficient to expend limited financial resources to undertake repairs. Any defects which do not meet the Investigatory Levels (as defined within Annex 1) will be recorded should the Highway Safety Inspector deem this appropriate (for example, where a cluster of such defects may form a potential preventative maintenance scheme in the future). Where such defects are recorded, they will be recorded as Cat 2L defects.

3.6 Information from the Public or the Police

Defects reported by the public or emergency services will be inspected in accordance with this code. Should action be required, the defect will be recorded in the authority's Asset Management System, in order to provide a reliable and documented history of reported highway defects. Completed defects are then entered into the authority's Asset Management System to ensure that repair instructions and work completion dates are all recorded into the same database from which data for Third Party Claims reports and performance statistics will be drawn up.

3.7 How the Information is Recorded

A defect found on the highway has to be identified by its location on the road network. Without this information it would be impossible to direct a contractor to the right place to affect a repair.

It would also be difficult to confirm or deny the presence of a defect alleged to have been the cause of injury or damage. The time of inspections and of when defects are found must be recorded.

Defects found within the highway are grouped according to an “activity” such as work to the carriageway or to signs. Each type of defect is given a description such as “pothole” or “safety barrier too low”.

Depending on the defect, its location and the materials of construction, a “treatment” is chosen from a range of permitted ones such as “adjust level” or “provide new”.

The size of the defect is needed in order for the right quantity of materials to be provided to the repair gang.

In order to make the business of recording all the information required as simple and quick as practicable, a coding system has been devised.

Each road has a unique number. Each part of the highway has a position from the left or the right across the whole width between boundaries. Distance to a defect is measured, always in the same direction from a fixed origin.

The coding system turns the English descriptions for defects and treatments into letter groups that are easy to remember because they are partly “mnemonic” and resemble the full words e.g. Ironwork difference in level = “IDLV” (the defect); Adjust level = “AJL” (the treatment).

3.8 Locational Referencing

The transverse location of a defect is recorded by using the UKPMS cross-section position referencing.

The Main Carriageway Lanes are numbered CL1 to 9 or CR1 to 9 from the edge toward the centre of the carriageway for the left and right respectively. The off carriageway features are numbered sequentially upward from L1 or R1 for the left or right respectively, away from the Carriageway. Kerbs and Kerb defects are referenced to LE ("Left Edge") or RE ("Right Edge").

The full code descriptions can be found in "the UKPMS user manual, Vol 2 Visual Data Collection for UKPMS, chapter 4: cross-Section Position Referencing.

3.9 Archiving

The details recorded into the authority’s Asset Management System of the inspections, findings and any subsequent actions are to be retained in archive form for six years following the date of inspection.

3.10 Emergency Procedures

If a Highway Safety Inspector identifies a defect which is assessed to be sufficiently dangerous to require an emergency response, arrangements will be made to make the defect safe in accordance with the response times detailed within this document.

Operational procedures are in place to ensure that resources are available during and outside normal working hours to ensure that the required response times can be achieved.

During normal working hours, third party reports are made to the Council's Customer Contact Centre. If it is determined that an emergency response is required, the details are passed directly to the appropriate operational team and resources deployed to meet the required response time.

Outside of office hours, third party reports of dangerous defects made using the Council's Out of Hours service will be reported to the on call Duty Inspector who will arrange the appropriate response within 1 ½ hrs of receiving the call. Additional resources will also be available to attend to specific situations as determined by the Duty Inspector.

3.11 Highway Safety Inspectors

Roles and Responsibilities

- Carry out highway safety inspections in accordance with current policy, and the code of practice ;
- Ensure network condition data is identified and recorded accurately;
- Represent Cheshire East Highways when defending 3rd party liability claims;
- Act as representative of the service and deal with public enquiries whilst completing inspections duties;
- Work closely with the operations team to ensure defects are repaired to the appropriate standard and within the prescribed timescales;
- Assist Senior Safety Inspector with site audits.

Training and Competence

All personnel involved in Highway Safety Inspections must be competent and have successfully completed the UK Highway Inspectors Training and Certification Scheme approved by the UK Roads Board in 2010 or any subsequent revision. It is desirable that all personnel should be included on the National Register of Highway Inspectors currently held by the Institute of Highway Engineers. Personnel undertaking a highway safety inspection must also demonstrate competency in the current Safety at Street Works and Road Works Code of Practice.

Highway Safety Inspectors will be trained to identify defects that may present a hazard to all highway users, including motorists, pedestrians, cyclists, motorcyclists, equestrians, wheelchair users, blind and partially sighted users and other vulnerable users.

Quarterly claims review meetings will be carried out with all Highway Safety Inspectors to ensure a culture or continual learning and a consistency of approach.

Competency will be continually assessed through a sample audit programme.

ANNEX 1

PHOTOGRAPHIC GUIDE TO ILLUSTRATE EXAMPLES OF DEFECTS

SHOWING THE TYPE, THE RESPONSE TIME AND THE INVESTIGATORY LEVEL

ACTION TO BE CONSIDERED WHEN A DEFECT MEETS THE INVESTIGATORY LEVEL

Defect: **Pothole (POTH)**

Location: In the body of the carriageway

Category: E,1,2

Investigatory level: 40mm

Defect: **Pothole (POTH)**

Location: On the edge of, and extending into the carriageway

Category: E,1,2

Investigatory level: 40mm

Defect: **Localised Edge Deterioration (LODT)**

Location: Cracking and breaking away on the edge of the carriageway not encroaching into the carriageway more than 250mm , and not requiring vehicles, motorcycles or bicycles to alter their course.

Category: E, 1, 2

Investigatory level: ≥100mm

Defect: **Condition of Fittings (COFT)**

Location: Signs over carriageways or footways.

Category: E, 1

Investigatory level:
If in danger of falling on pedestrian or vehicle.

Defect: **Slurry or Mud on Road (SLOP)**

Location: All roads *Category: 1 (dependent on severity)*

Investigatory level: Slippery surface

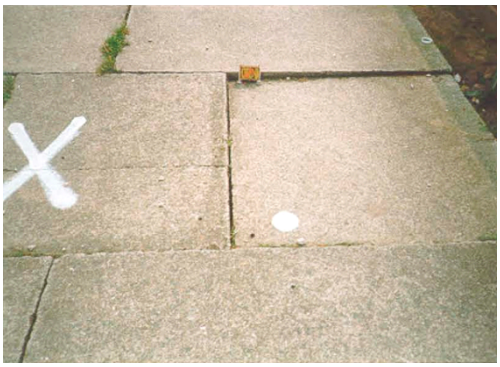
Notes: Contact person responsible, if known, and request signing/clean up. If no response, Local office to do work and recharge.

Defect: **Unauthorised Obstruction/Enclosure of Verge (UNOB)**

Location: All roads.

Investigatory level:
Stones, cultivation, fencing, etc., on verge.

Notes: Local office to issue notice to person responsible, and ensure removal.



Defect: **Slab Profile Uneven (SLPF)**

Location: Urban footways and pedestrian areas.

Category: E, 1, 2

Investigatory level: ≥ 20mm

Notes: Use 'Notes' on DCD to record type and number of slabs/flags to be re-laid. If other slabs/flags are broken, number of new slabs/flags to be recorded also.

Defect: **Concrete Blocks/Sets Missing (CBMS)**

Location: Footways, pedestrian areas and cycle paths.

Category: E, 1, 2

Investigatory level: Missing blocks/sets

Notes: Use 'Notes' on DCD to record number of blocks to be replaced.

Defect: **Difference in level (IDLV)**

Location: Footway, pedestrian area or cycleway

Category: E,1, 2

Investigatory levels:
≥ 20mm

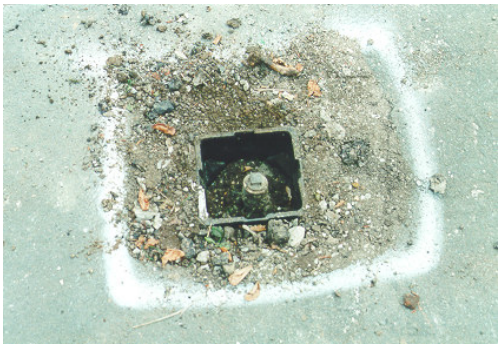
Notes: Use 'Notes' to inform Network Management Team of the type and owner (if apparent) of cover. If Utility owned, Network Management Team to contact Utility, and set time for response. Make safe in case of emergency.

Defect: **Cracked or Broken cover (IBCK)**
Location: All areas of highway

Category: E, 1, 2

Investigatory level: Cat E if in danger of collapse

Notes: Use 'Notes' to inform Network Management Team of the type and owner (if apparent) of cover. If Utility owned, Network Management Team to contact Utility, and set time for response. Make safe in case of emergency



Defect: **Missing (MISS)**

Location: All areas of highway

Category: E, 1, 2

Investigatory level: Cover not present

Notes: Use 'Notes' to inform Network Management Team of the type and owner (if apparent) of cover. If Utility owned, Network Management Team to contact Utility, and set time for response. Make safe in case of emergency

Defect: **Obscured Sign (OBSG)**

Location: All Roads

Category: 1, if at a junction with a busy or high speed road.

Notes: Applies to Stop, Give Way, Slippery Road, junctions, bends and roadworks signs. Does not apply to direction signs.

Defect: **Flooding (FLOD)**

Location: All Roads

Category: E

Investigatory Level: Road obstructed by water.

Notes: Partial obstruction to be considered dependent on extent and location on the road. Area Office to establish cause and remedy.

Defect: **Missing Door (MISP)**

Location: All Roads

Category: E

Investigatory Level:
Missing door (open, off or missing)

Notes: Telephone message to Street Lighting Superintendent to arrange attendance within ONE hour. Technician to stand by column until help arrives if in high risk location (play area, school, shops, busy footway, and the like). Inspector **is NOT to touch column or replace door.**

Defect: **Blacktop Profile (BKTP)**

Location: Footway, pedestrian area or cycleway with bituminous surface.

Category: 1, 2

Investigatory levels:
≥ 20

Defect: **Rocking Element (ROCK)**

Location: Any element including ironwork on footways, pedestrian areas or cycleways.

Category: 1,2

Investigatory levels: ≥ 20mm when depressed at one end.

Notes: Use 'Notes' to record number of blocks to be relaid.

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PART 2 – INSPECTORS MANUAL

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PART 2 INSPECTIONS MANUAL

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PART 2 - INSPECTIONS MANUAL

1. INTRODUCTION

Parts 2 & 3 of the manual are to be used by suitably trained and competent Highway Safety Inspectors (hereafter referred to as an "Inspector") from the Highways Service Provider to define a defect and record it in a form that may be entered into the authority's Asset Management System.

This may be achieved by using a PC Workstation in the office or a Data Capture Device (DCD) / or in the event of technical failure paper form (see Appendix 1) on site and uploading or entering the information onto the Asset Management System later.

Part 2 of the manual is set out firstly to describe a system based on a DCD such as the tablet devices currently carried by the Inspectors who perform the highway safety inspections of the Borough highway network.

All actionable defects identified by the Inspectors which meet the investigatory level detailed in Annex 1 will be recorded in accordance with this manual. The Inspectors are trained and competent in the collection and recording of defects as detailed in this manual.

Having identified a defect which meets or exceeds the investigatory level in this Code, it is necessary for the Inspector to use his judgement, training and experience, based on the guidance given in this code, in deciding when remedial action will be necessary and to make recommendations on what work is required.

For safety inspections the response time is dependent on the severity of the defect and the usage of the highway.

A response may be called for under emergency provisions, or it may require a 'within 2 working days or 5 working day response'. Once the defect & response time are determined, the defect is recorded and given one of three categories.

1.1 Network Hierarchy

In accordance with Well Managed Highway Infrastructure(WMHI) the Council has developed a Network Hierarchy in order to prioritise its resources in the most effective way allowing it to better address the various risks and issues associated with the management of the highway network. Each road is categorised in accordance with the criteria outlined in Table 1:

Table 1

CATEGORY	CRITERIA
Resilient Network	The category of roads to which priority is given for maintenance and other measures to maintain economic activity and access key services.
Strategic Routes	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.

Main Distributors	Routes between Strategic Routes and linking urban centres to the strategic network with limited frontage access.
Secondary Distributors	B and C class roads and some unclassified urban routes carrying buses. 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.
Link Roads	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.
Local Access Roads	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.

Special Interest Areas are defined as town centre areas etc.

1.2 Inspection Regime and Frequencies

In line with national codes of good practice (notably the new Code of Practice, Well Managed Highway Infrastructure, published on 28 October 2016) the characteristics of the inspection regime, including frequency of inspection, items to be recorded and nature of response, are defined following an assessment of the relative risks associated with the formation of defects within the highway boundary.

The inspection regime is applied and recorded systematically and consistently. As well as information relating to defects, all inspections must also therefore record:

- time of inspection and defect identification;
- weather conditions;
- any unusual circumstances of the inspection;
- person(s) conducting the inspection.

Frequencies for safety inspections of individual network sections are based upon the Carriageway Maintenance Hierarchy adopted by the Council which can be found on the Council's website

Although the carriageway maintenance hierarchy will be the main determinant of inspection frequency, site specific factors may merit a decision to temporarily or permanently increase or reduce the frequency in a specific location (for example to mitigate the risk of unusually high defect levels or accident rates, or with consideration for vulnerable users).

Frequencies of Inspection for each Road

Hierarchy Classification	*Number of safety inspections per year*	*Hierarchy Category*
S	**12**	Special Interest Areas
1R	**12**	Resilient Network
2	**6**	Strategic Road
3A	**6**	Main Distributor Road
3B	**3**	Secondary Distributor Road
4A	**3**	Local Link Road
4B	**2**	Local Access Road

Safety Inspection Frequency for Carriageways and Footways

Cycleway Hierarchy Classification	*Number of safety inspections per year*	*Hierarchy Category*
1	**As per carriageway frequency**	Cycle lane - contiguous with the carriageway
2	**2**	Cycle Track, Shared Cycle/Footway – a route for cyclists remote from the public footway or carriageway or a shared cycle/pedestrian path
3	**1**	Cycle trails - Leisure routes through open spaces which are the responsibility of the highway authority to maintain

Safety Inspection Frequency for Cycleways

Notes

- Total Number of Inspections in a year is shown in bold
- Inspections will ideally be scheduled evenly across the year however in time of adverse weather the time between inspections may vary
- Safety inspections will normally be carried out from a slow moving vehicle. Where the inspector determines that, in their reasonable opinion, the inspection cannot be undertaken and defects effectively observed from the vehicle, the inspection will be carried out on foot.
- Safety inspections will be carried out during daylight hours and where weather conditions do not create poor visibility.
- Footway inspections will be carried out on foot when remote from carriageways
- Cycleway inspections will be carried out on foot when remote from carriageways
- Carriageway inspections will be carried out on foot if being undertaken at the same time as footway inspections. All other carriageway inspections will be driven
- Driven inspections will be carried out by two people, with the passenger being the inspector
- Dual carriageway inspections will be carried out in both directions.

- The table defines the minimum frequency at which inspections will be undertaken. Additional inspections may be planned in response to user or community concern,

requirements for monitoring of structural concerns, as a result of incidents or in response to extreme weather conditions.

Arrangements are made to review the inspection, assessment, frequency and recording regime at least annually. This review will be considered at a senior management level within Cheshire East Highways (CEH) and will consider:

- changes in network characteristics and use;
- completeness and effectiveness of data collected;
- trends within defect formation;
- success of repair programmes;
- the need for changes/amendments/additions to the inspection regime derived from risk assessment.

As a result of such reviews, proposals may be put forward to amend the inspection frequency or methodology should such alterations be deemed to be beneficial. Any such amendment will be considered, proposed to CEC and Cabinet Member for agreement and, if implemented, recorded as such in formal minute.

Consideration will be made to reviewing and updating details of any Asset Management Plans as a result of any such changes.

1.3 Defect Categories

Having identified a defect, it is necessary for the Inspector to undertake a risk-assessment which informs the decision on what remedial action is required and the required response time.

Once the defect & response time are determined, the defect is recorded and given one of three categories:

- Emergency - those that require prompt attention because they represent an immediate hazard with potential for significant damage, serious injury or risk to life;
- Category 1 - those that require priority attention because they represent a potential risk to road users or to the integrity of the highway asset;
- Category 2 - all other defects.

Emergency defects will be corrected or made safe at the time of the inspection, if reasonably practicable. In this context, making safe may constitute displaying warning notices, coning-off or fencing-off to protect the public from the defect or other suitable action. If the inspection team cannot make safe the defect at the time of inspection then they will instigate the relevant emergency call procedures to ensure appropriate resources are mobilised to make the defect safe. It may be necessary for the Inspector to remain on site until the Response Team arrive and the defect can be made safe. These procedures aim to ensure initial attendance to the defect within 1 hour of notification (1.5 hours outside normal working hours of 0800 hours -1700 hours Mon – Fri).

Category 1 defects may also be corrected or made safe at the time of the inspection, if reasonably practicable. If it is not possible to correct or make safe the defect at the time of

inspection then an appropriate repair will be carried out within 2 working days of the identification of the defect.

Category 2 defects are those which are deemed not to represent an immediate hazard and which can be repaired within longer timescales.

Category 2 defects are categorised according to priority: High (Cat 2H), Medium (Cat 2M) and Low (Cat 2L), with response times defined within Section 3.3 'Time to Make Safe'. Guidance on appropriate classification of defects is provided in Inspectors Manual, Part 2 of this Code. The Manual provides examples of defects which may be encountered on the network and potential categorisation. However, on-site assessment will always need to take account of particular circumstances.

The Inspector will also take into account the likelihood of further deterioration before the next scheduled inspection, and where this is a considered a high probability, a higher defect classification may be determined.

Notes:

- During periods of severe weather conditions it may not always be possible to meet the target response times for both safety inspections and defect repair, which the highway authority should not be penalised upon evidencing best use of resources in difficult conditions.
- Full details of categorised highway defects and response times are contained within the Cheshire East highway inspections detailed guidance code.

1.4 Response Times

Clearly some defects need to be treated more urgently than others. In order to record how quickly action needs to be taken after an inspection, a "category" is applied to each individual defect.

Cheshire East Category	**Description**
E	Repair or make safe within 1 hour of notification (1.5 hours outside normal working hours of 0800 hours -1700 hours Mon - Fri
1	Make safe/repair within 2 working days
2H	Make safe/repair within 5 working days
2M	No temporary repair necessary. Attend and permanently repair within 20 working days
2L	Consider repair within future programmes of planned maintenance works

The time scale for each category commences when the Highway Safety Inspector identifies and records the defect

Defect Risk Assessment

The principals of a system of defect risk assessment for application to highway safety inspections are set out below. This has been designed following the guidance provided in 'Well Managed Highway Liability Risk', produced by the Institute of Highway Engineers. Any item with a defect level which corresponds to, or is in excess of, the Investigatory Levels described in Annex 1, is to be assessed using the risk assessment matrix and guidance within the Inspectors Manual. Risks will be assessed with consideration to a wide variety of factors including location, usage, local amenities, vulnerable users, public transport etc.

A 4x4 matrix is used to allow sufficient flexibility when assessing risk and determining the appropriate level and speed of response.

By way of example that risk assessment process might be as described below:

Impact
The impact of a risk occurring is measured on a scale of 1 – 4 (1 lowest, 4 highest) the following table gives guidance:

Impact Ratings

Impact rating	Score	Description	Possible Indicators
High	4	The hazard presented by the defect, or due to the short term structural deterioration in the defect, could result in serious injury.	Highway users coming into contact with the defect could result in serious injury or damage to property. Highway users will instinctively react to avoid the defect, presenting a hazard to themselves and to others. Location may present specific hazards.
Medium	3	The hazard presented by the defect, or due to the short term structural deterioration in the defect, could result in injury.	Highway users coming into contact with the defect could result in injury or damage to property. Highway users will instinctively react to avoid the defect, presenting a hazard to themselves and to others
Low	2	The Hazard presented by the defect, or due to the short term structural deterioration in the defect, could result in minor injury. If untreated the defect will contribute to the deterioration in the overall condition of the highway asset. The defect is likely to deteriorate further before the next safety inspection.	Most impacts will not result in any injury or damage to property. Highway users are unlikely to react to avoid the defect and the impact will not interrupt their passage. The defect will be felt and recognised as a defect by most highway users. If untreated the defect will accelerate the local deterioration of the highway asset.

Very Low	1	The hazard presented by the defect, or due to the short term structural deterioration in the defect, is unlikely to result in injury, but the defect will contribute to the deterioration in the overall condition of the highway asset. The defect is unlikely to deteriorate further before the next scheduled safety inspection.	The defect will be recognised by Highway Safety Inspectors as requiring attention, but is unlikely to be felt and recognised as a defect by most Highway users. The defect is very unlikely to cause injury or damage to property.

Probability

The probability of a risk occurring is measured on a scale of 1 – 4

Probability Ratings

Probability Ratings	Score	Description	Possible Indicators
High	4	More than a 75% chance of occurrence.	High use by all road users, higher category roads. Vulnerable users and/or different transport modes regularly pass through the site. The location and nature of the defect, as well as the topography of the site will mean that it is difficult for the defect to be avoided Forward visibility may be compromised.
Medium	3	40 – 75% chance of occurrence.	High use by all road users, higher category roads, but vulnerable users and/or differing modes are less likely to share the highway at this location. Responsible highway users may be able to recognise and take action to mitigate the impact of the defect. Forward visibility is good.
Low	2	10 – 40% chance of occurrence.	Use by all users is moderate or low. Vulnerable users and/or different transport modes are unlikely to share the highway at this location. The majority of responsible highway users will be able to recognise and take action to mitigate the impact of the defect.
Very Low	1	Less than 10% chance of occurrence.	Use by all users is very low. The speed differential between users is very likely to be low. The majority of responsible highway users will be able to avoid the defect.

Risk Probability

The probability of a risk occurring is assessed as follows:

- Very low probability;
- Low probability;
- Medium probability;
- High probability.

The probability is quantified by assessing the likelihood of users, passing by or over the defect, encountering the risk. As the probability is likely to increase with increasing vehicular or pedestrian flow and local amenities, the network hierarchy and defect location are important considerations in the assessment.

Risk Impact

The impact of a risk occurring, as adopted by CEC, is assessed as follows:

- Very low impact;
- Low impact;
- Medium impact;
- High impact.

The impact is quantified by assessing the extent of damage likely to be caused should the risk be realised. The main consideration of impact is the severity of the defect. However, other variables such as road speed may also affect the likely impact.

Risk Factor

The risk factor for a particular risk is

Risk Factor = impact score x probability score.

It is this factor that identifies the overall seriousness of the risk and consequently the appropriateness of the speed of response to remedy the defect.

Risk Management

Having identified a particular risk, assessed its likely impact and probability and calculated the risk factor, the category and the timescale to rectify the defect is either defined as an Emergency response, Category 1 response or allocated to one of the Category 2 defect types (Low, Medium or High).

To assist the inspector, a risk matrix is included within the Inspectors Manual, which considers the appropriate classification of defects when considering impact/severity against probability:

		PROBABILITY			
		Very Low (1)	Low (2)	Medium (3)	High (4)
IMPACT/SEVERITY	Very Low (1)	Cat 2L (1)	Cat 2L (2)	Cat 2M (3)	Cat 2M (4)
	Low (2)	Cat 2L (2)	Cat 2M (4)	Cat 2H (6)	Cat 2H (8)
	Medium (3)	Cat 2M (3)	Cat 2H (6)	Cat 1 (9)	Cat 1 (12)
	High (4)	Cat 2M (4)	Cat 2H (8)	Cat 1 (12)	Emergency (16)
	Emergency	Emergency (16)	Emergency (16)	Emergency (16)	Emergency (16)

Risk Matrix for defect identification

Score of 1 to 2	**Cat 2L**
Score of 3 to 4	**Cat 2M**
Score of 6 to 8	**Cat 2H**
Score of 9 to 12	**Cat 1**
Score of Over 12	**Emergency**

Scoring mechanism within Risk Matrix

**Note: It should be recognised that an emergency response can be requested for any very high impact defect regardless of road hierarchy. Examples may include fallen trees, subsidence or flooding, missing covers etc.*

Investigatory Levels

It is recognised that on any highway network, a multitude of minor defects will exist which do not pose any risk to either the safety or the integrity of the highway and for which it may be impractical and inefficient to expend limited financial resources to undertake repairs. Any defects which do not meet the Investigatory Levels (as defined within Annex 1) will be recorded should the Highway Safety Inspector deem this appropriate (for example, where a cluster of such defects may form a potential preventative maintenance scheme in the future). Where such defects are recorded, they will be recorded as Cat 2L defects.

1.5 Emergency Procedures

If a Highway Safety Inspector identifies a defect which is assessed to be sufficiently dangerous to require an emergency response, arrangements will be made to make the defect safe in accordance with the response times detailed within this document.

Operational procedures are in place to ensure that resources are available during and outside normal working hours to ensure that the required response times can be achieved.

During normal working hours, third party reports are made to the Council's Customer Contact Centre. If it is determined that an emergency response is required, the details are passed directly to the appropriate operational team and resources deployed to meet the required response time.

Outside of office hours, third party reports of dangerous defects made using the Council's Out of Hours service will be reported to the on call Duty Inspector who will arrange the appropriate response within 1 ½ hrs of receiving the call. Additional resources will also be available to attend to specific situations as determined by the Duty Inspector.
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LOCAL HIGHWAYS OFFICE CONTACT DETAILS

LOCAL HIGHWAYS OFFICE	ADDRESS	TELEPHONE NUMBER OUT OF HOURS
Wardle Depot	Cheshire East Highways Wardle Deport Green Lane Wardle CW5 6BJ	Phone: 0300 123 5020 Out-of Hours Emergencies: 0300 123 5025
Brunswick Depot	Cheshire East Highways Brunswick Wharf Deport Brook Street Congleton CW12 1RG	Phone: 0300 123 5020 Out-of-Hours Emergencies: 0300 123 5025

2. ACTION

2.1 General

A decision made by the Highway Safety Inspector requires an action to be recorded in the DCD using the Safety Inspection Software.

2.2 Marking Out Defects For Attention

The defect is to be marked. Marking should encompass the entire defect where practicable, include any adjacent area od deterioration in order to improve the effectiveness of the repair.

3 SPECIFIC ACTIVITIES

Some activities require particular actions

(a) Flooding FL	This Code requires that action is dependant upon the nature & extent of flooding and in addition to recommending remedial action, a note of the cause of the flooding is required if this is obvious at the time of the inspection. Engineer attendance may be appropriate to establish the cause and to consider possible remedial options.
(b) Hedges and Trees HT	Action that can be carried out or recommended by the inspector will be dealt with in the normal way. Hedge & Tree Notices may need to be issued & followed up. Most of the other defects (dead & dying) associated with trees should be referred to a suitably qualified person i.e. Borough Tree Officer who will advise the Highway Office on appropriate action.
(c) Embankments / Cuttings EC	Failure indicators include water weeping from the slope, longitudinal cracking at the top & slumping of the slope. Action is to be taken as soon as possible if hazardous but specialist advice may be needed. The Highways Office is to be informed and an engineer's inspection recommended /engineer's visual inspection.

4. APPENDICES

TABLE A SURFACE TYPES

1	HRA	Hot Rolled Asphalt	10	OTHR	Other
2	BITM	Bit Macadam	11	SETT	Stone Setts
3	CONC	Concrete	12	HFSD	High Frict S. Dress
4	SDRE	Surfaced Dressed	13	MFLG	Mini-Flags
5	GRSS	Grass	14	YKST	York Stone
6	GRAV	Gravel	15	COBB	Cobbles
7	FLAG	Concrete Flags	16	BLBR	Block Pave (Brick)
8	BLCK	Block Pave (Conc)	17	ANPD	Anti-pedestrian
9	UNMD	Unmade	18	TACF	Tactile flags

TABLE B KERB TYPES

101	CONC	Conc Half Batter	108	CBCK	Concrete Block
102	STON	Natural Stone	109	CONF	Conc. Full Batter
103	EXTA	Extruded Asphalt	110	CONB	Conc. Bull Nose
104	OTHR	Other	111	CONL	Conc. Drop Left
105	BBCK	Beaney Block	112	CONR	Conc. Drop Right
106	SFTY	Safety Kerb	113	CONQ	Conc. Quadrant
107	BRIK	Brick	114	SETT	Setts

TABLE C COVER, GULLY, GRATING, FRAME OR BOX TYPES

201	PARL	Parallel Gully	208	WATR	Water Authority
202	CHAN	Channel Gully	209	STAP	Stop Tap
203	SIDE	Side Entry	210	HYDT	Hydrant
204	OSID	Off-set	211	ELEC	Electricity
205	SEWR	Sewer	212	GASS	Gas
206	TCOM	Telecom	213	HIGH	Highway Drainage
207	CABL	Cable TV	214	UNKN	Unknown

TABLE D TRAFFIC SIGNAL LAMP DEFECT TYPES

301	ALLO	All lamps out	303	AMBO	Amber lamp out
302	REDO	Red lamp out	304	GRNO	Green lamp out

TABLE E ROAD STUD CLASSES

401	CLA1	Class 1, Prohibitory			
402	CLA2	Class 2, Warning & Informatory			

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PART 3 – DETAILED GUIDANCE: CODES

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PART 3: DETAILED GUIDANCE: CODES

Investigatory levels:

Dimensions given with a ">" symbol: action is to be taken when the dimension is at or above the value stated.
Dimensions given with a "<" symbol: action is to be taken when the dimension is below the value stated.

PERMITTED ACTIVITY CODES

Carriageways Footways & Cycle Tracks	
Flexible carriageway	MC
Concrete carriageway	CM
Footway and cycle tracks	FC
Kerbs Edging & Channels	
Kerbs, edging & preformed channel	KC
Highway Drainage	
Highway drain: covers gratings frames & boxes	CG
Highway drain: gully/ catchpit/ interceptor	GC
Highway drain: piped drain	PD
Highway drain: piped grips	PG
Highway drain: gGrips	GP
Highway drain: ditches	DI
Highway drain: filter drains	FD
Highway drain: culverts	CV
Highway drain: flooding	FL
Fences & Barriers	
Safety fences: metal/concrete/timber	FB
Safety fences: steel - tensioned	FN
Boundary fences: metal/concrete	BF
Boundary fences: timber	BT
Verges Hedges & Trees	
Hedges and trees	HT

PERMITTED BOROUGH ACTIVITY CODES Cont…

Road Studs & Markings	
Road studs: general	RS
Road markings	RM
Traffic Signs	
Non-Illd. Signs (face/struct/fixings)	SG
Illuminated Signs	SE
Road Lighting	
Road lighting columns	LP
Traffic Signals	
Traffic signals hardware	TS
Sweeping & Cleansing	
Carriageway & Footway	SC

In brackets on each page by the Activity Description are given the Features Inventory Codes to which that Activity applies.

Treatment Codes are shown for each Activity and are described in the Appendix: Treatment Codes.

FLEXIBLE CARRIAGEWAY (CW, LB, XO, CI, CR, HS) MC

NOTES:
Corrections of defects arising from the activities of public undertakers should not be charged to the CEC. If the undertaker does not carry out repair work to a dangerous defect in the time given then work is to be carried out by CEC and a charge raised to the undertaker. Notification is to be given to the undertaker at all stages and documentation is to accompany any charge, which should be agreed where possible with the undertaker

Particular consideration should be given to defects, such as trips & potholes, which may constitute an immediate danger to pedestrians and/or cyclists, especially on cycle lanes, carriageways or carriageways used by pedestrians.

The table below sets out the Minimum Investigatory Level for consideration by the inspector when identifying a defect. Defects which do not satisfy these criteria will not generally be identified on a safety inspection, unless the inspector deems it necessary to do so.

Note: Minimum Investigatory Levels are provided as a guide only. Should the inspector, following risk assessment, deem it necessary to record any specific defect at a higher level, then they should do so.

For cycle lanes & pedestrian use the standards in FC apply, not MC
INCLUDE DEPTH OF POTHOLE IN TEXT

Treatment Codes: / AJL / CPL / EVI / ESI / PRB / PRD / PRE / PRG / PRI / RPL / SOB / NON

DESCRIPTION	DEFECT CODE	GUIDANCE
Localised Edge Deterioration Surface + L x w + text	LODT	If difference in level is equal to or greater than 100mm. Cracking & breaking away confined to a discrete area of the carriageway and not associated with structural maintenance activities. (NOT edge potholes)
Missing carriageway element Surf+no.+depth+text	MISS	If carriageway elements are missing forming a pothole. Investigatory level as for POTHOLE
Patch Difference in Level Surface + L x w + text	PDLV	If difference in level is equal to or greater than 40mm . Difference in level of a patch with the surrounding carriageway.
Pothole Surface + L x w + text	POTH	If difference in level is equal to or greater than 40mm. . May be on the edge or in the main part of the carriageway
Single Crack or gap Surface + L x w + text	SCRK	If width of crack is equal to or greater than 20mm and equal to or greater than 40mm deep on carriageways subject to high to medium **pedestrian** usage.

Surfacing Joint - Open or Excessive Surface + L x w + text	SRJT	If width of joint is equal to or greater than 20mm and equal to or greater than 40mm deep on carriageways subject to high to medium **pedestrian** usage.
Isolated small depression or hump Surface + L x w + text	SDPR	If small depression or hump is equal to or greater than 40mm.

FLEXIBLE CARRIAGEWAY Cont….

SURFACE CODES & DESCRIPTIONS

1	HRA	Hot Rolled Asphalt	10	OTHR	Other
2	BITM	Bit Macadam	11	SETT	Stone Setts
3	CONC	Concrete	12	HFSD	High Frict S. Dress
4	SDRE	S. Dressed	13	MFLG	Mini-Flags
5	GRSS	Grass	14	YKST	York Stone
6	GRAV	Gravel	15	COBB	Cobbles
7	FLAG	Concrete Flags	16	BLBR	Block Pave (Brick)
8	BLCK	Block Pave (Conc)	17	ANPD	Anti-pedestrian
9	UNMD	Unmade	18	TACF	Tactile flags

CONCRETE CARRIAGEWAY (CW, LB, XO, CI, CR, HS) **CM**

Treatment Codes: / EVI / ESC / RCS / SOB / STR / NON

Safety Inspection

DESCRIPTION	DEFECT CODE	GUIDANCE
Joint seals L x w + text	JTSL	If width of joint is at or >20 mm and >40 mm deep on carriageways subject to **pedestrian** usage or is longitudinal and a danger to cyclists.
Deep spalling at joints L x w x depth + text	DSPL	At or >20mm in carriageways subject to **pedestrian** usage.
Opening of longitudinal joint L x w x depth + text	OLJT	If width of joint is at or >20 mm and >40 mm deep on carriageways subject to **pedestrian** usage or is a hazard to cyclists.
Pothole L x w + text	POTH	If difference in level is equal to or greater than 40mm. May be on the edge or in the main part of the carriageway
Single Crack or joint gap L x w + text	SCRK	If width of crack is >20 mm and >40 mm deep on carriageways subject to **pedestrian** usage.
Stepping (trip) at joint/crack L x height + text	STEP	At or >20mm in carriageways
Vert movement under traffic Height + text	VMVT	At or > 20mm in carriageways

FOOTWAYS AND CYCLE TRACKS (FW, CT) **FC**

DEFINITION: An area for pedestrians/cyclist within the Borough road boundary, including subways, underbridges, overbridges and other footways which are the responsibility of Cheshire East Council. Investigatory levels apply to the complete width of all cycle lanes and combined bus/cycle/taxi lanes, whether segregated from or within the carriageway. Investigatory levels also apply to footway crossing areas on the carriageway, and pedestrianised areas of carriageway.

Treatment Codes: /AJL /FLT /EVI /ESI /MFJ /PRB /PRD /PRG /RFX /RPL /NON

Safety Inspection

DESCRIPTION	DEFECT CODE	GUIDANCE
Blacktop Pothole Surface + L x W + text	BPOT	Includes potholes and patches equal to or greater than 20mm in all areas.
Missing Surf + no. + ht + text	MISS	Missing paving units (as pothole)
Trench Reinstatement - loss of material inc. paving units Surface + L x W + text	RLMT	Loss of material (fretting) from a reinstated trench if it constitutes a trip or pothole equal to or greater than 20 mm or cracks and gaps equal to or greater than 20 mm wide x 20mm deep. **Notify Undertaker concerned.**
Trench Reinstatement - subsidence or overfill Surface + L x W + text	RDLV	Ridges equal to or greater than 20mm. **Notify Undertaker concerned.**
Isolated small depression or hump Surface + L x W + text	SDPR	Depressions or humps equal to or greater than 20mm deep/high **and** less than 250mm wide.
Surface Joint or Gap Surface + L x W + text	SIFJ	Cracks and gaps equal to or greater than 20mm.
Surface Profile Uneven Surface + L x W + text	SRPF	Ridges equal to or greater than 20 mm. Includes ridges, projections and sharp edges (trips),

Rocking Surface + Number + Height + text	ROCK	If rocking creates a ridge of at or equal to or greater than 20 mm

SURFACE TYPES AND DESCRIPTIONS

1	HRA	Hot Rolled Asphalt	10	OTHR	Other
2	BITM	Bit Macadam	11	SETT	Stone Setts
3	CONC	Concrete	12	HFSD	High Frict S. Dress
4	SDRE	S. Dressed	13	MFLG	Mini-Flags
5	GRSS	Grass	14	YKST	York Stone
6	GRAV	Gravel	15	COBB	Cobbles
7	FLAG	Concrete Flags	16	BLBR	Block Pave (Brick)
8	BLCK	Block Pave (Conc)	17	ANPD	Anti-pedestrian
9	UNMD	Unmade	18	TACF	Tactile flags

KERBS, EDGINGS AND PREFORMED CHANNELS (KB, CH) KC

DEFINITION: This section relates to minor repairs to kerbs, edgings and preformed channels of all types.

Treatment Codes: /AJL /EVI /ESI /RFX /RPL /NON

Safety Inspection

DESCRIPTION	DEFECT CODE	GUIDANCE
Vertical projection or sunken Type + L + Ht + text	EVPJ	CAT 1 only if adjoining a footway and creates a longitudinal trip equal to or greater than 20mm.
Horizontal projection Type + L + Ht + text	EHPJ	If equal to or greater than 50 mm where a kerb has been pushed out into the carriageway, facing traffic. CAT 1 only if on the inside of a curve where tyres could over-ride & burst.
Loose/rocking Type + L + Ht + text	ELRK	Loose or rocking items equal to or greater than 20mm which are creating a hazard underfoot.
Missing Type + L + No + text	MISS	CAT 1 only if adjoining a footway and creates a longitudinal trip equal to or greater than 20mm.

KERB MATERIAL TYPES

101	CONC	Conc Half Batter	108	CBCK	Concrete Block
102	STON	Natural Stone	109	CONF	Conc. Full Batter
103	EXTA	Extruded Asphalt	110	CONB	Conc. Bull Nose
104	OTHR	Other	111	CONL	Conc. Drop Left
105	BBCK	Beaney Block	112	CONR	Conc. Drop Right
106	SFTY	Safety Kerb	113	CONQ	Conc. Quadrant
107	BRIK	Brick	114	SETT	Setts

COVERS, GULLY GRATINGS, FRAMES AND BOXES **CG**
(CP, MH, GY, IN, PG, IW)

DEFINITION: This section relates to the repairs to and replacement of (where necessary) all types of covers, gratings, frames and boxes, which are the responsibility of the Borough Council or for which the Borough Council have a responsibility to report to the owners.

NOTES:

(i) The majority of covers in carriageways, footways and cycle tracks are the responsibility of the Statutory Undertakers and other parties. Hazardous defects should be signed & coned and the **owners notified by Highway Office staff by phone/FAX.** If repairs are not then carried out in the appropriate time by the owners, the authority should carry them out and seek to recover the costs from the owners.

(ii) Where defects arise in carriageways subject to medium or high pedestrian use, the standards given for footways & cycle tracks should be employed.

Treatment Codes: /AJL /EVI /ESI /FLT /LET /REP /RPL /NON
Safety Inspection

DESCRIPTION	DEFECT CODE	GUIDANCE
Difference in level with road Type + Ht + text	IDLV	If equal to or greater than 40 mm in c/way or equal to or greater than 20mm in footway or cycle track . Differential levels between items and the abutting surface.
Difference in components level Type + Ht + text	ICLV	If equal to or greater than 20 mm on footway or a cycle track. Differential levels between different components i.e. cover & frame.
Cracked or broken Type + L + W + text	IBCK	A cracked or broken item which is in danger of collapse or if an inspector is in doubt should be classed as a Category 1 defect.
Missing Type + L + W + text	MISS	Missing items should be replaced as soon as possible.
Parallel gratings Type + L + W + text	PARL	Gully and other gratings in carriageways and cycle tracks which have gaps more than 20 mm wide parallel to and within the normal line of movement of pedal and motor cycles should be corrected as soon as possible. Offset gratings unlikely to be Cat 1.
Smooth surface Type + L + W + text	SMTH	Worn covers which constitute a skidding hazard to pedal and motor cycle users in wet conditions should be classed as Category 1 where they are located on a bend, at a junction or in an area of braking ahead of signals etc. **Notify Undertaker concerned.**

GULLIES, CATCHPITS AND INTERCEPTORS (GY, CP, IN) GC

DEFINITION: This section relates to the gully pot itself and any raising pieces below the cover.

Treatment Codes: /CLU /RPL /ESI /EVI /NON
Safety Inspection

DESCRIPTION	DEFECT CODE	GUIDANCE
Flooding L x w x depth + text	FLOD	Record as FLOOD (FL). Treatment as /ESI to get Flood signs in place.

COVER, GULLY, GRATING, FRAME OR BOX TYPE

201	PARL	Parallel Gully	208	WATR	Water Authority
202	CHAN	Channel Gully	209	STAP	Stop Tap
203	SIDE	Side Entry	210	HYDT	Hydrant
204	OSID	Off-set	211	ELEC	Electricity
205	SEWR	Sewer	212	GASS	Gas
206	TCOM	Telecom	213	HIGH	Highway Drainage
207	CABL	Cable TV	214	UNKN	Unknown

HIGHWAY DRAINAGE: PIPED DRAINAGE SYSTEMS **PD**
(FD, GY, CD, PG)

DEFINITION: All types of Piped Drainage Systems including slot drains.

NOTES: (i) Maximum use should be made of emptying & cleansing operations to check that piped drainage systems are operating satisfactorily.

(ii) Symptoms of blockage or fault which should normally prompt a detailed inspection are, backing up and flooding at the entry points to the system, dry outfalls, wet areas and the presence of lush vegetation.

(iii) Before any work is carried out, the ownership of the drainage system should be determined.

Treatment Codes: /CLU /EVI /ESI /PVN /NON

Safety Inspection

DESCRIPTION	DEFECT CODE	GUIDANCE
Flooding L x W x Depth + text	FLOD	If creating a dangerous flood on the highway. Treatment as /ESI to get Flood signs in place. And inform highway office staff immediately
Flood nuisance to properties text	NPRP	flooding properties.

HIGHWAY DRAINAGE: PIPED GRIPS (PG) **PG**

DEFINITION: Short lengths of pipe carrying water from a channel across the verge direct to a ditch, filter drain or soakaway, without a gully-pot but sometimes with a grating.

Treatment Codes: /CLU /EVI /ESI /RPL /NON

Safety Inspection

DESCRIPTION	DEFECT CODE	GUIDANCE
Flooding L x w x depth + text	FLOD	A dangerous flood on the highway. Record as FLOOD (FL). Treatment as /ESI to get Flood signs in place. And inform highway office staff immediately

HIGHWAY DRAINAGE: GRIPS (GP) **GP**

DEFINITION: An open channel cut across rural verges leading to ditches or filter drains and ending at an appropriate distance from the carriageway or hard shoulder.

Treatment Codes: /CLU /ESI /EVI /NON

Safety Inspection

DESCRIPTION	DEFECT CODE	GUIDANCE
Flooding L x w x Depth + text	FLOD	If causing a dangerous flood on the highway. Treatment as /ESI to get Flood signs in place. And inform highway office staff immediately

HIGHWAY DRAINAGE: DITCHES (DI) **DI**

DEFINITION: A channel adjacent to the highway for drainage. The ditch is not generally a part of the highway unless owned by the highway authority. Check with Flood Risk Management Team.

NOTES: Ditches are not generally the responsibility of the Borough Council. The riparian owner of the ditch is to be informed of the defect.

Treatment Codes: /CLU /EVI /ESI /LET /NON

Safety Inspection

DESCRIPTION	DEFECT CODE	GUIDANCE
Collapsed bank L x W x Height + text	CLBK	If undermining the carriageway or footway record as CAT 1 with a request for an Engineer to inspect.
Flooding L x W x Height + text	FLOD	If dangerous flooding of the highway itself or adjacent property is also occurring. Also record as FLOOD (FL). And inform highway office staff immediately

HIGHWAY DRAINAGE: FILTER DRAINS (FD, CD) **FD**

DEFINITION: A field drain, usually adjacent to a carriageway that may or may not incorporate a properly formed invert or collection pipe.

Treatment Codes: /EVI /ESI /NON

Safety Inspection

DESCRIPTION	DEFECT CODE	GUIDANCE
Flooding L x W x Depth + text	FLOD	Dangerous flooding of the carriageway itself is occurring, record as FLOOD (FL). Treatment as /ESI to get Flood signs in place. . And inform highway office staff immediately

CULVERTS (CV) **CV**

DEFINITION: This section relates to culverts with diameters at or less than 1.5m, culverts with diameters over 1.5m are to be reported to the Bridge Maintenance Section.

Treatment Codes: /CLU /EVI /NON

Safety Inspection

DESCRIPTION	DEFECT CODE	GUIDANCE
Free flow impeded *percentage + text*	FRFL	If flooding of the highway is likely over full width or road width would be significantly reduced with poor visibility.
Flooding L x w x depth + text	FLOD	If creating a dangerous flood on the highway. Also record as FLOOD (FL). Treatment as /ESI to get Flood signs in place. And inform highway office staff immediately

HIGHWAY DRAINAGE: FLOODING **FL**

(DI, CV, CH, PG, GY, MH, CP, FD, CD, BP, IN, CW, LB, CI, CR, HS, XO, FW, CT)

DEFINITION: Flooding of the highway caused by the inadequate provision or operation of highway drainage facilities. If the cause can be established as an item of drainage inventory e.g. GY, that is the cause, then record that. If the flooding is general to the carriageway, then record CW with the cause to be found on later investigation.

If the general area is flooded, record as CW or FW etc. so that warning signs may be provided.

NOTES: The cause of flooding shall be ascertained and if necessary proposals for action recommended.

Treatment Codes: /CLU /EVI /ESI /NON

Safety Inspection

DESCRIPTION	DEFECT CODE	GUIDANCE
Flooding L x w x depth + text	FLOD	If road flooded over full width or width significantly reduced with poor visibility. Treatment as /ESI to get Flood signs in place. And inform highway office staff immediately

FENCES AND BARRIERS **FB, FN, BF, BT**

(SF, PR, RW, FB, OI)

DEFINITION: All types of boundary fences (including open iron b & w Cheshire fencing) and walls, antiglare screen fences, noise barriers, pedestrian guardrails and fences, and tensioned / untensioned vehicle safety fences/barriers.

Does not include parapets and guardrails on bridges and other structures or the structural elements of noise barriers.

Treatment Codes: /AJL /EVI /ESI /REP /RPL /NON (FB, FN, BF, BT)

Safety Inspection

DESCRIPTION	DEFECT CODE	GUIDANCE
Missing L x w x ht + text	MISS	Only if part of a safety barrier or pedestrian guard-rail. Treat = /EVI
Damaged L x w x ht + text	DAMM	Only if safety barrier bent / displaced. Inform the owner of stock as if stock in the field. Treat = /EVI

HEDGES AND TREES (HG, TR, TC) **HT**

DEFINITION: This section relates to the maintenance of hedges and trees which are the responsibility of the Borough Council or which, although the responsibility of others are causing a nuisance or obstruction to the highway. contact: Borough Tree Officer.

Treatment Codes: /CUT /EVI /ESI /LET /TEL /NON

DESCRIPTION	DEFECT CODE	GUIDANCE
Unstable/overgrown L + number + text	UNST	A branch or tree is clearly broken & swaying about above the road it is to be treated as an emergency.
Dead tree height + text	DTRE	A dead highway tree is clearly broken & leaning over above the road it is to be treated as an emergency.
Dying/dead branch length x ht + text	DBRA	If a dead branch is clearly broken & swaying about above the road it is to be treated as an emergency.
Obscured sign or Traffic Signal Head text	OBSN	24 hour response only for Signal Heads, mandatory signs.
Overgrown & obstructing the way Length + text	OVER	If the growth is forcing pedestrians off the footway into the path of traffic or if branches are projecting into carriageway. Length = length of highway affected

ROADSTUDS (RS) **RS**

DEFINITION: Reflective and non-reflective road studs of all types and colours including 'Cats eyes'.

Treatment Codes: /EVI /ESI /PRG /RFC /RFX /RPL /STK /NON

DESCRIPTION	DEFECT CODE	GUIDANCE
Loose cats eye casing Type + Number + text	LCAS	Remove immediately then record another defect at this EXACT location as RS - MISC.

Type 401 = Class 1, prohibitory **Type 402 = Class 2, warning & informatory**

ROAD MARKINGS (RM, LL, LH, PX, RF) **RM**

DEFINITION: This section relates only to mandatory road markings in paint or thermoplastic materials, these markings may be longitudinal, transverse, hatched & special road markings, but not to edge markings.

Treatment Codes: /EVI /REM /NON

Safety Inspection

DESCRIPTION	DEFECT CODE	GUIDANCE
Completely Missing Markings Number + text	MISS	Only if a mandatory marking; Stop or Give-way line. Give way triangle STOP wording

TRAFFIC SIGNS (SG, SB, RF) **SG**

DEFINITION: This section relates to all non-illuminated road traffic signs & permanent bollards. A special Section, SE, is provided for electrical faults in illuminated signs.

Treatment Codes: / CLO / ESI / EVI / LET / PVN / TEL / REP / RPL / RSL / NON

ID No. & Diag No. are prompted for just before "Defect Code".

Safety Inspection

DESCRIPTION	DEFECT CODE	GUIDANCE
Physical condition of fittings. text	COFT	If in danger of falling into the road or onto pedestrians.
Physical condition of frame text	COFR	If in danger of falling into the road or onto pedestrians.
Physical condition of post text	COPT	If in danger of falling into the road or onto pedestrians.
Damaged. text	DAMG	If in danger of falling into the road or if non-functional for Stop 601.1 & Give Way 602 at junctions with busy or high speed roads & Slippery Road 557 signs.
Post Leaning text	LEAN	If clearly dangerous i.e. could fall. In emergency, then phone message to Area highways office foe street lighting attendance and action.
Missing text	MISS	For Stop 601.1 & Give Way 602 signs at junctions with busy or high speed roads.
Pointing wrong way text	RWAY	For Stop 601.1 & Give Way 602 signs at junctions with busy or high speed roads. Do not record direction or other information signs.

ILLUMINATED ROAD TRAFFIC SIGNS (SG, SB, RF) **SE**

DEFINITION: This section relates to all **illuminated** road traffic signs including permanent bollards.

NOTES During recent years some illuminated traffic signs have been replaced with non-illuminated ones. In many cases the old wide-based posts have been left, sometimes still containing an electrical supply. Instances of such sign posts are to be recorded & reported to the Street Lighting Section, during office hours or the highway duty officer outside normal office hours in case of difficulty.

Treatment Codes: /ESI /EVI /LET /PVN /TEL /REP /RPL /RSL /NON

Safety Inspection

DESCRIPTION	DEFECT CODE	GUIDANCE
Defects as for SG	COFT to DIRT & MISS	Guidance as for SG
Accident damage Response time + text	DAMG	If the post is in an obviously dangerous state, immediate phone message to relevant Street Lighting Officer for contractor to respond within ONE hour. **Enter Response Time as 1½hrs.**
Exposed wiring Response time + text	EXPW	Phone as above. **Enter Response time as 1½ hrs**
Electrical Arcing text	EARC	Phone as above. **Enter Response time as 1½ hrs**.

ILLUMINATED ROAD TRAFFIC SIGNS Cont

DESCRIPTION	DEFECT CODE	GUIDANCE
Lantern Bowl hanging text	LBHG	If bowl is hanging.
Post Leaning or Bracket Arm hanging by cable Response time + text	LEAN	If clearly leaning at a dangerous angle or bracket is hanging by its cable, then phone message to relevant Street Lighting Client Officer to **respond within 1½ hours**.
Missing Door (Open, off or missing) Response time + text	MISP	Phone message to relevant Street Lighting Officer to respond within 1½ hours. If children near, stay by post. Do NOT attempt to touch post.
Pointing wrong way or twisted text	RWAY	For Stop 601.1 & Give Way 602 signs at junctions with busy or high speed roads. Do not record direction or other information signs.
Underground Cables Exposed Response time + text	UXPW	If insulation damaged then phone message to relevant Street Lighting Officer to **respond within 1½ hours**.

ROAD LIGHTING COLUMNS (LP) **LP**

DEFINITION: This section relates to the routine maintenance of road lighting installations.

Treatment Codes: /ESI /EVI /LET /PVN /REP /TEL /RSL /NON
Identity No. prompted for just before "Defect Code"

Safety Inspection

DESCRIPTION	DEFECT CODE	GUIDANCE
Electrical Arcing/ buzzing text	EARC	The sound of electrical buzzing from within the column.
Exposed wiring Response time + text	EXPW	Telephone message to relevant Street Lighting Officer response time 1½ hours
Accident damage Response time + text	DAMG	If the column is in an obviously dangerous state, phone message to relevant Street Lighting Officer, response time 1½ hours.
Lantern Bowl hanging or Bracket Arm twisted text	LBHG	If bowl is hanging or bracket arm is twisted.
Column Leaning unreasonably or Bracket Arm hanging by cable Response time + text	LEAN	If clearly leaning at a dangerous angle or the bracket is hanging by its cable i.e. could fall, then phone message to relevant Street Lighting Officer, response time 1½ hours.
Missing Door (Open, off or missing) Response time + text	MISP	Phone message to relevant Street Lighting Officer, response time 1½ hours.. Do not touch post. If children near stay by post.
Underground Cables Exposed Response time + text	UXPW	If insulation damaged then phone message to relevant Street Lighting Officer, response time 1½ hours.

TRAFFIC SIGNALS (TS, DL) **TS**

DEFINITION: This section relates to the routine maintenance of road signal installations. Telephone message to Traffic Signals Section, Immediate action taken = TEL to show that a phone message passed to the Traffic Signals Section.

Treatment Codes: /CUT /ESI /EVI /LET /RFX /REP /RPL /TEL /NON

Safety Inspection

DESCRIPTION	DEFECT CODE	COMMENTS
Alignment or Obscuration Response time + text	ALOB	If drivers cannot see heads or alignment, cleanliness and visibility of signal heads Immediate phone message to Traffic Signals Section. Enter reported to Traffic Signals Section.
Corrosion holes in post or box Response Time + text	CORR	Severe corrosion holes allowing access to electrical equipment, particularly on doors or near ground level. Immediate phone message to Traffic Signals Section. Enter reported to Traffic Signals Section.
Damaged Response time + text	DAMG	If non-functional. All lights out immediate phone message to Traffic Signals Section Enter reported to Traffic Signals Section.
Lamp Out Type + Response Time + text	LAMP	Any lamps out immediate phone message to Traffic Signals Section. Enter reported to Traffic Signals Section.
Post Leaning or Loose Signal Head Response Time + text	LEAN	If clearly dangerous i.e. could fall immediate phone message to Traffic Signals Section.. Enter reported to Traffic Signals Section.
Missing Door Response time + text	MISP	Immediate phone message to Traffic Signals Section. Enter reported to Traffic Signals Section.
Underground Cables Exposed Response time + text	UXPW	If insulation damaged then immediate phone message to Traffic Signals Section Enter reported to Traffic Signals Section.

SWEEPING & CLEANSING (CI, CR, CW, HS, LB, XO) **SC**

DEFINITION: This section is included to deal with mud & debris on the highway.

Treatment Codes: /CLO /ESI /LET /SWP /NON

DESCRIPTION	DEFECT CODE	GUIDANCE
Mud on Road L x w + text	SLOP	Slurry or mud on the road. 24 hour response if on a strategic route (2) or Main Distributor (3(a)) `or other busy road. Notify those causing the problem. Immediate notification of Highways Office if road surface likely to be dangerous to get warning signs set up as soon as possible. Council will inform Police and take action to have slippery surface cleaned at cost to those causing it if they do not take immediate action.
Material deposited on the highway surface L x w x text	MUCK	Immediate action may be necessary to identify the source & cause of the danger and to notify those causing the problem that they face prosecution. Immediate notification of Highways Office. "Material" includes Diesel oil spillage - **make clear in text**.
Excess Surface Dressing Chippings L x w x text	CHIP	The defect is most likely to be present following surface dressing of the road Note as Contractor Works in text. If “loose chippings” signs not present notify Highways Office immediately.

APPENDIX: TREATMENT CODES

ACTIVITY CODE	ACTIVITY CODE DESCRIPTION	TREATMENT CODE
BF	Boundary fences: Metal/concrete	/EVI /LET /REP /RPL /NON
BT	Boundary fences: Timber	/EVI /LET /REP /RPL /NON
CG	Covers, gratings, frames and boxes	/AJL /CLU /EVI /ESI /FLT /LET /REP /RPL /NON
CM	Concrete carriageway repairs	/EVI /ESI /RCS /SOB /STR /NON
CV	Highway drainage: Culverts	/CLU /EVI /NON
DI	Highway drainage: Ditches	/CLU /EVI /ESI /LET /NON
EC	Embankments and cuttings	/EVI /NON
FB	Fences and barriers	/AJL /EVI /ESI /REP /RPL /NON
FC	Footways and cycle tracks	/AJL /FLT /EVI /ESI /MFJ /PRB /PRD /PRG /RFX /RPL /SOB /NON
FD	Filter Drain	/EVI /ESI /NON
FL	Highway drainage: Flooding	/CLU /EVI /ESI /NON
FN	Safety fences: Steel - tension	/AJL /EVI /ESI /REP /RPL /NON
GA	Grassed areas	/CUT /EVI /ESI /LET /SBV /NON
PD	Highway drainage: Piped drainage systems	/CLU /EVI /ESI /PVN /NON

APPENDIX: TREATMENT CODES

ACTIVITY CODE	ACTIVITY CODE DESCRIPTION	TREATMENT CODE
GC	Highway drainage: Gullies, Catchpits, Interceptors	/CLU /RPL /ESI /EVI /NON
GP	Highway drainage: Grips	/CLU /ESI /EVI /NON
HT	Hedges and trees: General	/CUT /EVI /ESI /LET /TEL /NON
KC	Kerbs, edgings and preformed channels	/AJL /EVI /RFX /RPL /NON
LP	Road lighting	/ESI /EVI /LET /PVN /REP /TEL /RSL /NON
MC	Flexible carriageway repairs	/AJL /CPL /EVI /ESI /PRA /PRB /PRD /PRE /PRG /PRI /RPL /SOB /NON
PD	Highway drainage: Piped drainage systems	/CLU /EVI /ESI /LET /PVN /NON
PG	Highway drainage: Piped grips	/CLU /EVI /ESI /RPL /NON
RM	Road markings	/EVI /ESI /REM /NON
RS	Road studs: General	/EVI /ESI /PRG /RFC /RFX /RPL /STK /NON
SE	Illuminated Signs	/CLO /ESI /EVI /LET /PVN /TEL /REP /RPL /RSL /NON
SG	Road traffic signs	/CLO /ESI /EVI /LET /PVN /TEL /REP /RPL /RSL /NON
SC	Emergency Sweeping & Cleansing	/CLO /ESI /LET /SWP /NON
TS	Traffic signals	/CUT /ESI /EVI /LET /RFX /REP /RPL /TEL /NON

APPENDIX: TREATMENT CODES

TREATMENT CODE	TREATMENT CODE DESCRIPTION	DEFECT ATTRIBUTE DESCRIPTION All may not be present for any defect
AJL	Adjust level, refix/relay	Height, text
CLO	Clean only	Length, width, text
CLU	Clear/unblock	Percentage, text
CPL	Cold Planings	(Surface) Type, length, width, text
CUT	Cut/trim	Length, width, height, text
ESI	Emergency Sign/cone & maintain	Length, width, height, text
EVI	Engineer to Visit Site	Text
FLT	Fillet, mortar/asphalt	Length, height, text
LET	Notify owner: FAX/ Phone/ Letter	Length, height, text
MFJ	Mortar Fill to Joint	(Surface) Type, length, width, text
PRA	Patch - edge key & asphalt only	(Surface) Type, length, width, text
PRB	Patch - edge key & bitmac only	(Surface) Type, length, width, text
PRD	Patch-complete excavation & bitmac only	(Surface) Type, length, width, text
PRE	Patch-complete excav.& bitmac & asphalt	(Surface) Type, length, width, text
PRG	Patch - no excavation & bitmac only	(Surface) Type, length, width, text

APPENDIX: TREATMENT CODES

TREATMENT CODE	TREATMENT CODE DESCRIPTION	DEFECT ATTRIBUTE DESCRIPTION All may not be present for any defect
PRI	Patch using hot rolled asphalt	(Surface) Type, length, width, text
PVN	Provide new	Emergency response, height, text
TEL	Telephone Emergency Call Out	Length, height, text
RCS	Reconstruct	Length, width, height, text
REM	Re-mark	Length, percentage remaining, text
REP	Repair	Length, text
RFC	Remove Stud Fill Cavity	Number, text
RFX	Refix	(Surface) Type, length, width, text
RPL	Replace	Length, width, height, text
RSL	Inform Street Lighting	Emergency Response, text
RTS	Inform Traffic Signal Control Centre	Emergency Response, text
SBV	Side back verge	Length, width, height, text
SOB	Seal/overband	Length, width, height, text
STK	Renew Dual Coloured Stick on Studs	Number, text
SWP	Sweep (Surface)	Length, width, text