

HIGHWAY SAFETY INSPECTION MANUAL

October 2018

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Highway Safety Inspection Manual

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1.0 INTRODUCTION

- 1.1 This Safety Highway Inspection Manual supersedes the Highway Safety Inspection Manual published in April 2013 and all previous versions.
- 1.2 This manual sets the standards for highway inspection on the publically maintained highways of Somerset and is designed to give guidance on Somerset County Council's policy and procedures relating to Highway Safety Inspections.
- 1.3 As the Highway Authority, Somerset County Council has a statutory duty under the Highways Act 1980 to maintain the highway network, ensuring that the highways are safe and that the public can use them without obstruction.
- 1.4 To ensure a consistent countywide approach a formalised Inspection System that prescribes the frequency of inspections and the method of assessment, recording and actioning of defects has been adopted. The Safety Inspection regime provides the basic information for addressing the first core objective of highway maintenance, network safety.
- 1.5 The inspection system and maintenance regime also assists in providing the evidence for a defence in any case of litigation brought against the County Council where lack of adequate maintenance has been alleged by a third party (Section 58, Highways Act 1980).
- 1.6 This Manual has been developed taking into account:
 - Somerset County Council's Highways Infrastructure Operational Asset Management Plan;
 - The vision and priorities of the Corporate Plan;
 - Objectives of the Local Transport Plan;
 - Legislation, particularly the Highways Act (1980) and New Roads and Street Works Act (1991);
 - Well-Managed Highway Infrastructure – A Code of Practice (October 2016);
 - Well Managed Highway Liability Risk (March 2017).
 - Rights of Way Improvement Plan 2
- 1.7 National recommendations for the provision of highway maintenance have, until now, been defined within three specific Codes of Practice, namely Well-Maintained Highways, Well-Lit Highways and the Management of Highway Structures. The content of these three Codes of Practice is now brought together under a new overarching Code of Practice entitled Well-Managed Highway Infrastructure which was published in autumn 2016. Somerset County Council chose to continue with existing practices during the interim period, in which case the existing Code of Practice (2013) remained valid until October 2018.
- 1.8 The Well-Managed Highway Infrastructure A Code of Practice encourages the development of a locally determined risk-based approach to highway maintenance, aligned to central governments expectation that local highway authorities will adopt appropriate asset management.
- 1.9 The Well-Managed Highway Infrastructure A Code of Practice is not a statutory document but comprises a framework of guidance and standards for the highway maintenance service. As a national document, the Code of Practice has recognised that there has been increasing divergence from the principles and practices

recommended in the aforementioned three Codes of Practice due to the need for local discretion and diversity in service provision and differing local service user's priorities.

- 1.10 Those undertaking Highway Safety Inspections or managing the inspection process will need to refer to this document, which forms part of the Council's Asset Management Plan.

2.0 LEGISLATION

- 2.1 Section 41 of the Highways Act (1980) states that "the authority who are for the time being the highway authority for a highway maintainable at the public expense are under a duty to maintain the highway"
- 2.2 The majority of claims against a local highway authority arise from an alleged breach of Section 41. If a local authority is deemed to have breached Section 41 it may have a defence under Section 58. Section 58 of the Highways Act (1980) states that a statutory defence against third party claims is provided where the Highway Authority can establish that reasonable care has been taken to "secure that the part of the highway to which the action relates" to a level commensurate with the volume of ordinary traffic such that it "was not dangerous to traffic".
- 2.3 Section 130 of the Highways Act (1980) places a general duty on the Highway Authority to "assert and protect the rights of the public" in their lawful use of the highway.

3.0 SCOPE OF THE HIGHWAY INSPECTION MANUAL

- 3.1 This Highway Safety Inspection Manual details the process for the identification and repair of highway safety defects. This manual excludes policy requirements for:
- Emergency plans
 - Winter maintenance
 - Highway Lighting
 - Traffic Signals
 - Street works e.g. Section 81 notices
 - Structures
 - Un-metalled Public Rights of Way
 - Development control
- 3.2 The appropriate policy documents should be referred to for these items.
- 3.3 It should be noted that the M5, A303 and A36 are operated and maintained by Highways England and therefore do not form part of the network which Somerset County Council is responsible for. Enquiries relating to Motorways and Trunk Roads should therefore be referred to Highways England.

4.0 THE PURPOSE OF HIGHWAY SAFETY INSPECTIONS

- 4.1 Safety inspections are designed to identify defects likely to create danger or serious inconvenience to users of the network or the wider community. The risk of danger is assessed on site and the defect identified with an appropriate response.
- 4.2 The purpose of Highway Safety Inspections is therefore:
- To identify defects which are hazardous to highway users and which must be dealt with as a priority;
 - To ensure safe passage on the highway for all users;
 - To identify potential defects that may become hazardous prior to the next planned inspection;
 - The safety inspection regime forms a key aspect of Somerset County Council's strategy for managing liability and risk;
 - To collect condition data of the network in order to assist the asset management of the highway network and future maintenance programmes;
 - To provide evidence that Somerset County Council has fulfilled its statutory obligation to maintain the highway in a safe condition.

5.0 SAFETY DEFECT: INVESTIGATORY CRITERIA

- 5.1 Section A.5.8 of the Code of Practice – Well Managed Highway Infrastructure states that:
- “Safety inspections are designed to identify all defects likely to create danger or serious inconvenience to users of the network or the wider community. Such defects should include those that are considered to require urgent attention as well as those where the locations and sizes are such that longer periods of response would be acceptable.”*
- 5.2 Appendix A provides a list of the main features to be inspected followed by advice on defect types and investigatory levels.
- 5.3 This Manual is a guide to assist the Highways Officer in undertaking a risk assessment of the defect. It provides a framework which links investigatory levels to response times and covers a number of examples which act as a starting point in the decision making process. Highways Officers are expected to use their judgement to assess the risks that apply to the particular onsite circumstances and use their expertise to select the most suitable priority for repair. As a result there will be circumstances where the priority assigned is different to that given in this Manual. The reasons for this decision should be recorded at the time of the inspection.
- 5.4 Where defects with potentially serious consequences for network safety are made safe by means of temporary signing or repair, arrangements are made to ensure the continued integrity of the signing or repair is maintained, until a permanent repair can be made.
- 5.5 Many highways have been dedicated and adopted with historic features that would not be acceptable in a current highway design. This might include steps, cellar openings or drainage arrangements that present potential trip situations worse than the investigatory suggested in this document. These should not be recorded as defects, as in law the highway has been adopted with these encumbrances and the public must take appropriate care.

6.0 RISK MANAGEMENT

6.0.1 Degree of Deficiency and Nature of Response

6.0.2 Defects are assessed based upon hierarchy, investigatory level, response time and the likelihood of predictable deterioration.

6.0.3 The investigatory levels, the making safe and the permanent repair times for each item have been determined for each category of the network by evaluating the likely impact (should the risk occur) and the probability of it actually occurring. The resulting risk factor determines the category and timescale to rectify the defect. 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 can be defined as a Category 1.0 or 1.1 response or allocated to locally determined Category 2.0 or 2.1 defects. The response category is represented by the coloured cells in Table 1 below:

Probability → Impact ↓	Very Low (1)	Low (2)	Medium (3)	High (4)	Very High (5)
Negligible (1)	1	2	3	4	5
Low (2)	2	4	6	8	10
Noticeable (3)	3	6	9	12	15
High (4)	4	8	12	16	20
Extreme (5)	5	10	15	20	25

Category 2.1 Low Risk (28 days) Repair within 28 calendar days	Category 2.0 Medium Risk (7 days) Repair within 7 calendar days	Category 1.1 High Risk (24 hours) Make safe or repair within 24 hours	Category 1.0 Extreme Risk (Immediate) Make safe or repair within 1 ½ hours
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6.0.4 A Category 1.0 and Category 1.1 defect is defined as requiring prompt attention because they represent an imminent or immediate hazard with a corresponding high level of probability that an incident may occur with a consequential high level of impact should it actually happen.

6.0.5 Category 2.0 and Category 2.1 defects have safety implications less significant than a Category 1, or have an effect on the reliability, quality, comfort, and ease of use of the highway network.

6.0.6 Other defects may be noted for monitoring or information purposes as potentially desirable works to the network and are not programmed for repair within a specific time period. They are normally placed on a programme of future works depending on availability of finance and resources.

6.0.7 Risk Register

6.0.8 Although it is not possible to identify every risk, the hazards identified within the Risk Register for Highway Safety Defects (Appendix D) encompass a wide range of risks likely to be encountered on the highway. This provides a robust and auditable framework for inspectors and superintendents to assess the majority of hazards encountered on the highway.

6.0.9 The Risk Register is the fundamental component of the risk management process in that it incorporates:

- Hazard description
- Extent of defect
- Assessment of impact
- Assessment of probability
- Risk factor
- Defect categorisation and response

6.0.10 The Somerset County Council Risk Register for Highway Safety Defects is for guidance only. The risks contained within the register sets out the minimum investigatory level based upon the highest assumed risk attributable to the type of defect, position and assessed type of usage. The benefit of local knowledge could assess the risk differently and staff have the flexibility to vary the provided framework.

6.0.11 The inspector or superintendent will therefore assess risks with the benefit of local knowledge and this could result in a different risk factor from that contained in the Risk Register. In such cases, the reasons for the variation must be recorded.

6.0.12 The principles for risk impact and probability in the register are:

- The greater the extent of defect, the higher the impact
- The greater the highway usage, the higher the probability.

6.0.13 The register incorporates defects that may not be the responsibility of the highway authority such as utility trench reinstatements and iron work (Section 81 New Roads and Street Works Act (NRWSA) 1991, developer works, or hazards caused by third parties such as obstructions in the highway. Although the inspector must ensure that all relevant information is notified either directly to the third party concerned or to the appropriate person/section responsible for dealing with the defect, they must also satisfy themselves that the authority's obligations in respect of duty of care are fully met. This means that when such hazards are deemed dangerous, the inspector must ensure that the site is made safe by the highway authority.

6.0.14 The Index of Safety Defects (Appendix A) details defects that are likely to be encountered on the network and applies the risk management principles contained within the Risk Register.

7.0 NETWORK HIERARCHIES

- 7.1 The network maintenance hierarchy is the foundation for the system of routine safety inspection.
- 7.2 The maintenance hierarchy adopted by the Council reflects the needs, priorities, strategic importance and actual use of each highway element on the network. The dynamic nature of the network is taken into account and hierarchies are reviewed on a regular basis.
- 7.3 The network maintenance hierarchy currently serves to inform the frequency of inspection and is also used as a weighting factor to inform the response times for routine and reactive maintenance in accordance with the risk based approach recommended by the Code of Practice.
- 7.4 The network hierarchies adopted by Somerset County Council are as follows:

7.4.1 Carriageway Hierarchy

Highway Authorities in South West England have agreed and adopted a carriageway hierarchy based on the recommendations contained within Well-Managed Highway Infrastructure, as detailed below:

No.	Carriageway Hierarchy	General Description	HSIM Description
1	Motorway	Limited access motorway regulations apply.	Routes for fast moving long distance traffic. Fully grade separated and restrictions on use.
<i>Note: Not applicable to Somerset County Council – Motorway Network is operated and maintained by Highways England</i>			
2	Strategic Route	Principal 'A' Roads between Primary Destinations. (Trunk roads in Somerset i.e. A303 and A36, are operated and maintained by Highways England).	Routes for traffic travelling long distances, often with little frontage access or pedestrian traffic. Speed limits are usually in excess of 40 mph and there are few junctions. Pedestrian crossings are either segregated or controlled and parked vehicles are often prohibited. Not always National Speed Limit.
3	Main Distributor	Major Urban Network and Inter-Primary Links. Short - medium distance traffic	Routes between Strategic Routes and linking urban centres to the strategic network often with limited frontage access. In urban areas speed limits are usually 40 mph or less, parking is often restricted at peak times and there are positive measures for pedestrian safety.
4	Secondary Distributor	B and C class roads and some unclassified urban routes carrying bus, HGV and local traffic with frontage access and frequent junctions	In rural areas these roads link the larger villages, industrial sites and commercial sites to the Strategic and Main Distributor Network. In urban areas these roads usually have

			30 mph speed limits and very high levels of pedestrian activity with some crossing facilities including zebra crossings.
5	Link Road	Roads linking between the Main and Secondary Distributor Network with frontage access and frequent junctions.	Roads interconnecting the Secondary Distributor Network with collector roads and Local Access Roads with frontage access and frequent junctions. In rural areas these roads link the smaller villages to distributor roads. In urban areas these for residential, industrial and public transport interconnecting roads, usually with a 30 mph speed limit and pedestrian movements.
6	Local Link Road	Roads connecting Link Roads and other Distributor Roads. Local Link Roads usually have frontage access and junctions onto Local Access Roads.	These roads are residential interconnecting roads, usually with uncontrolled pedestrian movements. They provide well used vehicular links within the local access roads.
7	Local Access Road	Roads serving limited numbers of properties carrying only access traffic.	In rural areas these roads serve small settlements and provide access to a number of properties or land. In urban areas they are often residential streets, cul-de-sacs or small industrial estates.
8	Minor Road	Local roads serving an extremely limited number of properties or agricultural land.	In rural areas these form minor access roads to houses and farms. In urban areas these form minor side roads and vehicular alleyways
9a	Lanes		In rural areas these often narrow metalled roads serving isolated agricultural buildings In urban areas they are often metalled no through lanes serving garages or the rear of properties.
9b	Minor Lanes	Minor lanes and low use tracks that provide access to field entrances only and/or Rights of Way.	In rural areas these are often narrow metalled and are usually only used by 4WD or agricultural vehicles.
10	Green Lanes and Tracks	Lanes and tracks that are unsuitable for vehicular traffic.	Lanes and tracks that are unsuitable for vehicular traffic but may be used as a footpath, part of a Cycle Trail or by horse riders, generally for leisure purposes.
11	Disused Tracks	Un-metalled tracks that are unrecognisable as a road.	Roads that have become unrecognisable as such, having fallen into disuse through regression or agricultural use.

7.4.2 Footway Hierarchy

No.	Footway Hierarchy	Description
F1	Prestige Walking Zones	Very busy areas of towns and cities with high public space and street scene contribution.
<i>No Prestige Walking Zones have been identified within Somerset</i>		
F2	Primary Walking Routes	Busy urban shopping and business areas and main pedestrian routes.
F3	Secondary Walking Routes	Medium usage routes through local areas feeding into primary routes, local shopping centres etc.
F4	Link Footways	Linking local access footways through urban areas and busy rural footways.
F5	Local Access Footways	Footways associated with low usage, short estate roads to the main routes and cul-de-sacs.
F6	Minor Footways	Little used rural footways serving very limited numbers of properties.

7.4.3 Cycleway Hierarchy

No.	Cycleway Hierarchy	Description
1	Cycle lane forming part of the carriageway, commonly a strip adjacent to the nearside kerb	Cycle gaps at road closure point (no entry to traffic but allowing cycle access)
2	Cycle Track	A highway route for cyclists not contiguous with the public footway or carriageway. Shared cycle/pedestrian paths, either segregated by a white line or other physical segregation, or un-segregated.
3	Cycle provision on carriageway, other than a marked cycle lane or marked cycle provision, where cycle flows are significant.	
4	Cycle trails, leisure routes through open spaces.	These are not necessarily the responsibility of the Highway Authority but may be maintained by an authority under other powers or duties.

8.0 HIGHWAY SAFETY INSPECTION FREQUENCIES

8.1 The inspection frequencies for highway inspections are detailed below and are based upon the network hierarchy (as defined in 7.0 above) and takes into account the following considerations:

- Traffic/pedestrian use, characteristics and trends
- Incident and inspection history
- Characteristics of adjoining network elements
- Local knowledge

8.2 Consultation with our neighbouring highway authorities has been undertaken to ensure a consistent approach has been applied to roads which traverse county boundaries.

8.3 Carriageway safety inspection frequencies

Carriageway Hierarchy		Inspection Frequency and mode of Inspection
2	Strategic Route	12 times per year (monthly) - Driven
3	Main Distributor	12 times per year (monthly) - Driven
4	Secondary Distributor	12 times per year (monthly) - Driven
5	Link Road	4 times per year (3 monthly) - Driven
6	Local Link Road	2 times per year (6 monthly) – Driven
7	Local Access Road	9 Monthly - Driven
8	Minor Road	Once per year (Annually) - Driven
9a	Lanes	Once per year (Annually) - Driven
9b	Minor Lanes	Once per year (Annually) - Driven
10	Green Lanes and Tracks	Once per year (Annually) - Driven
11	Disused Tracks	Reactive only

8.4 Footway safety inspection frequencies

Footway Hierarchy		Inspection Frequency and Mode of Inspection
F2	Primary Walking Routes	12 times per year (monthly) – Walked, with associated carriageway inspected at the same time
F3	Secondary Walking Routes	4 times per year (3 monthly) - Walked, with associated carriageway inspected at the same time
F4	Link Footways	2 times per year (6 monthly) - Walked, with associated carriageway inspected at the same time
F5	Local Access Footways	2 times per year (6 monthly) - Walked, with associated carriageway inspected at the same time
F6	Minor Footways	Once per year (Annually) - Walked, with associated carriageway inspected at the same time

8.5 Cycleway safety inspection frequencies

Cycleway Hierarchy		Inspection Frequency and Mode of Inspection
1	Cycle lane forming part of the carriageway, commonly a strip adjacent to the nearside kerb	2 times per year (6 monthly) – Cycled or Walked
2	Cycle Track	2 times per year (6 monthly) – Cycled or Walked
3	Cycle provision on carriageway, other than a marked cycle lane or marked cycle provision, where cycle flows are significant.	As per Carriageway inspection frequency
4	Cycle trails, leisure routes through open spaces.	Reactive

8.6 Inspection Frequency Tolerances

- 8.6.1 One of the purposes of defining inspection frequencies is to be able to demonstrate to a court of law that the County Council has taken due care to maintain its highways. From time to time it will not always be possible to undertake an inspection exactly on the due date. Somerset County Council will always endeavour to undertake inspections before or on the due date, however it has been accepted that this is not always possible and inspection tolerances have therefore been adopted as follows:

Inspection Frequency	1 Month	3 Monthly	6 Monthly	9 Monthly	Annual
Tolerance on Due Date	Plus or minus 7 calendar days	2 weeks early, 1 week late	4 weeks early, 2 weeks late	4 weeks early, 2 weeks late	4 weeks early, 2 weeks late
Max period between inspections	38 days	15 weeks	30 weeks	43 weeks	56 weeks

- 8.6.2 The due date for each inspection is set at the beginning of the financial year (1st April).
- 8.6.3 The minimum number of planned safety inspections to be completed each year (1st April to 31st March) will be:
- Monthly – 12 per year
 - 3 Monthly – 4 per year
 - 6 monthly – 2 per year
 - 9 monthly - 1 or 2 per year
 - 12 monthly – 1 per year
- 8.6.4 If, and for reasons beyond the control of the Highways Authority (e.g. substantial snow fall) an inspection cannot be carried out by the Due Date, then an entry will be made to document the circumstances. An inspection will be programmed to be undertaken once the highway is accessible.

- 8.6.5 Due to the nature of the weather in the UK it is probable that carriageway, footway and cycleway surfaces will be wet with some elements of standing or running water whilst an inspection is in progress. However if the quantity of water is excessive, or across the full width of the highway, then the inspection should be abandoned and an entry made to document the circumstances. An appropriate order will be raised to make the situation safe. As soon as possible following the above events an ad-hoc safety inspection will be carried out on the effected length of highway.

9.0 INSPECTION PROGRAMMING

9.1 Planned Inspections

- 9.1.1 The Highway Information System contains details of all highways to be inspected including its maintenance category. Using this information the frequency of inspection is determined in accordance with the inspection frequencies detailed above in 7.0.

9.2 Reactive Inspections

- 9.2.1 Inspections may also be initiated by an Enquiry from many sources, for example a member of the public, the emergency services or a County Councillor. Inspections generated in this way are recorded as ad-hoc inspections within the Highway Information System and a record kept of any actions taken.
- 9.2.2 Defects that are reported via an Enquiry will be inspected within a timescale relevant to the severity/location of the defect, but within a target of 3 working days.
- 9.2.3 Additional inspections may be necessary in response to user or community concern as a result of incidents, extreme weather conditions or monitoring information.

9.3 Programme of Inspections

- 9.3.1 Interested parties shall be issued with the indicative annual planned inspections programme by 1st April.
- 9.3.2 The weekly planned inspection programme will be issued to interested parties by the preceding Thursday. The Planned Inspections Manager will notify interested parties of any variation to the daily programme.

10.0 INSPECTION METHODOLOGY

10.1 General

- 10.1.1 Planned Inspections are managed by the Highway Inspections Manager based in County Hall and the Planned Inspections are undertaken by Highway Inspectors.
- 10.1.2 Reactive Inspections are managed by the Area Highways Manager and undertaken by Area Superintendents who are based in the 5 Area Offices.

10.2 Planned Inspections

- 10.2.1 The Highway Inspector shall inspect the whole of the area or route to be inspected in an appropriate manner.
- 10.2.2 Planned inspections are driven, walked or cycled, dependant on the inspection type.
- 10.2.3 Urban carriageway inspections will be undertaken on foot if the adjacent footway is being inspected at the same time.
- 10.2.4 Driven safety inspections are undertaken in accordance with the Inspections Project Method Statement/Safe System of Work. Main points to note are:
- Driven safety inspections are always undertaken by 2 persons (one inspector, one driver);
 - Driven safety inspections shall generally be carried out at a speed of 20mph or less, or appropriate to the location and the requirement to ensure accurate recording of safety defects;
 - Where the whole highway cannot be seen from a vehicle, e.g. footway hidden behind a grass verge, the inspector will walk the area on foot, particularly where a rural route is inspected annually.
- 10.2.5 Walked inspections are undertaken in accordance with the Inspections Project Method Statement/Safe System of Work. The main point to note is:
- Where practical, ironwork within footways on hierarchy F2 and F3 routes will be stepped on to ensure its stability.
- 10.2.6 Carriageways shall be subject to the same investigatory levels as Footways at all defined pedestrian crossing points. Defined pedestrian crossing points can be identified by tapered and dropped kerb units, often accompanied by tactile paving. The width of carriageway subject to footway investigatory levels shall be that width between opposing sets of tapered kerb stones.
- 10.2.7 If for any reason the inspector cannot inspect any of the required highway for reasons such as flooded road, highway works, road closures etc, the inspector must record this information, including the reason for not inspecting. The Planned Inspection Manager will then arrange for the highway to be re-programmed for inspection at the earliest opportunity.
- 10.2.8 It is important to be as accurate as possible when recording the size of the safety defect for insurance claim purposes. The exact size of the defect must be recorded. If the anticipated size of repair differs from the defect size, then both must be recorded.
- 10.2.9 Where the replacement of the highway asset is required, e.g. signs, kerbs, slabs, the specific type and size shall be recorded to enable the proper replacement at the first attempt.

10.3 Reactive Inspections

- 10.3.1 A reactive inspection is generally undertaken in response to an enquiry from a third party, e.g. member of the public, emergency services, etc.
- 10.3.2 Carriageways shall be subject to the same investigatory levels as Footways at all defined pedestrian crossing points. Defined pedestrian crossing points can be identified by tapered and dropped kerb units, often accompanied by tactile paving. The width of carriageway subject to footway investigatory levels shall be that width between opposing sets of tapered kerb stones.
- 10.3.3 It is important to be as accurate as possible when recording the size of the safety defect for insurance claim purposes. The exact size of the defect must be recorded. If the anticipated size of repair differs from the defect size, then both must be recorded.
- 10.3.4 Where the replacement of highway inventory is required, e.g. signs, kerbs, slabs, the specific type and size shall be recorded to enable the proper replacement at the first attempt.

11.0 RECORDING OF INSPECTIONS AND DEFECTS

11.1 Planned Inspections

- 11.1.1 The results of planned inspections are downloaded to the EHAMS database following completion of the inspection. This will include a record of sections that have been inspected (including those with no defects found) and a record of defects.
- 11.1.2 Immediate response defects will be telephoned through to the Service Provider by the Inspector when found. The defect will also be recorded through the normal inspection recording system.
- 11.1.3 A 24 hour response defect will be telephoned through to the Service Provider if the inspection being undertaken does not usually require a 24 hour response. The defect will also be recorded through the normal inspection recording system.

11.2 Reactive Inspections

- 11.2.1 If a safety defect is identified as a result of an enquiry this will be recorded in the EHAMS database.
- 11.2.2 Immediate and 24 hour response defects will be telephoned through to the service provider by the Superintendent when found. The defect will also be recorded through the normal inspection recording system, with a note to record any action already taken.

11.3 Insurance Claim Inspections

- 11.3.1 A Superintendent will respond to insurance claims as an ad-hoc inspection, and if a safety defect is identified this will be recorded in the Electronic Highways Asset Management System (EHAMS).

11.4 Statutory Undertakers Apparatus

- 11.4.1 Section 81 of the New Roads and Street Works Act (1991) places a duty on statutory undertakers (utility companies) to maintain their apparatus to the reasonable satisfaction of the Highway Authority.
- 11.4.2 When an inspection identifies statutory utility apparatus that is deemed unsafe and requiring attention, notification will be sent to the appropriate party requiring them to undertake remedial action under Section 81 of NRSWA (Defective Apparatus procedure is attached as Appendix D).
- 11.4.3 If remedial action is not carried out within a reasonable time period, the Highway Authority may undertake repairs and recharge their reasonable costs.
- 11.4.4 If remedial action is urgently required i.e. an emergency situation, the statutory undertaker must be given the opportunity to rectify the defect prior to the Highway Authority affecting a repair. The immediate hazard will be protected by SCC staff until it is made safe by the statutory undertaker or Somerset County Council's contractor.

11.5 Highway Improvement Schemes

- 11.5.1 Where safety defects are identified on the public highway within the extents of a highway improvement scheme, the works promoter will be contacted to make safe or undertake a permanent repair within a specified response time.
- 11.5.2 If remedial action is not carried out within a reasonable time period, the Highway Authority may undertake repairs and recharge their reasonable costs.

12.0 REPAIR OF SAFETY DEFECTS

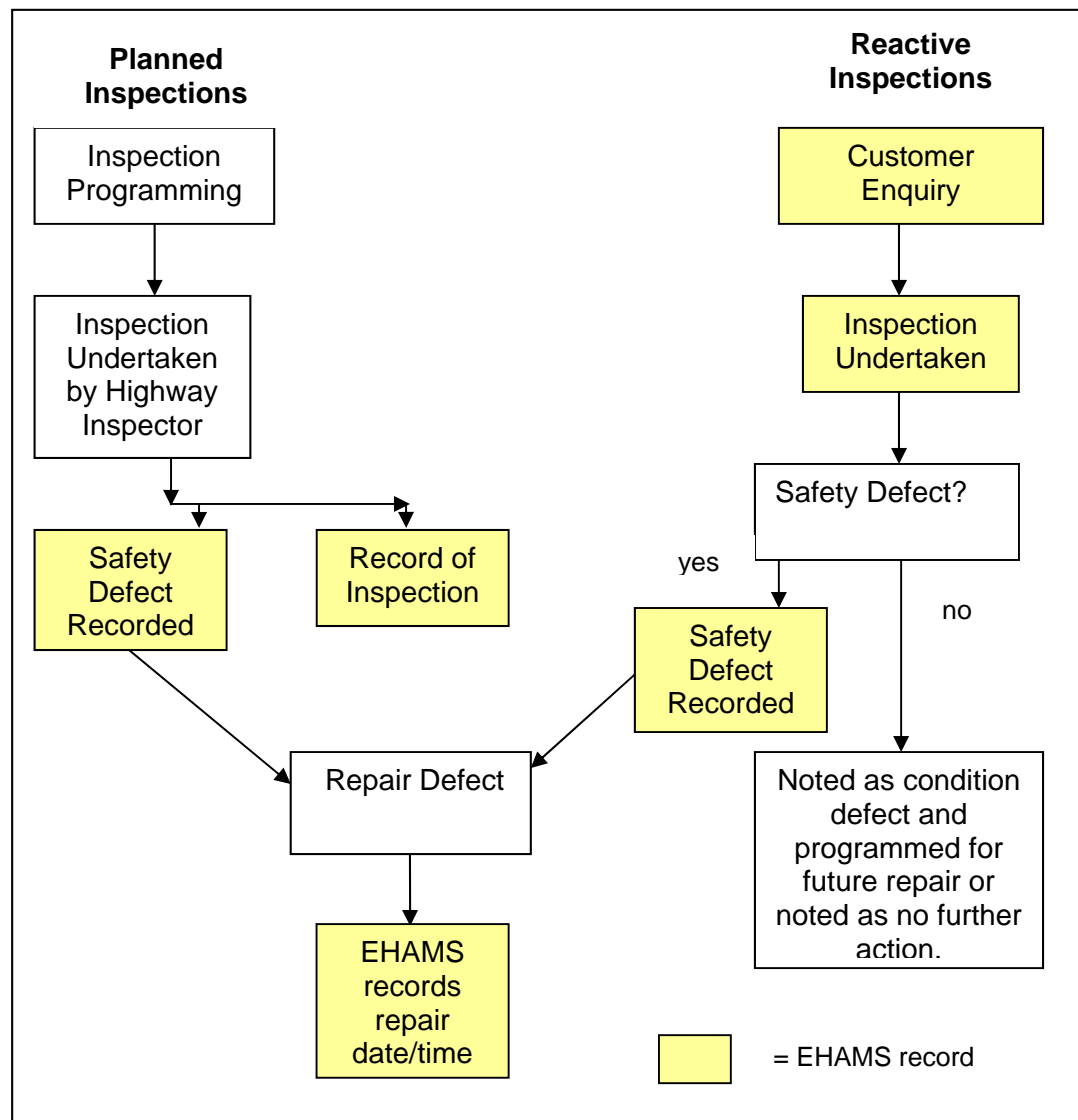
- 12.1 The Service Provider shall ensure that the works resulting from Highway Safety Inspections is undertaken within the response time specified by the Inspector or Superintendent.
- 12.2 The standards and specification for the repair of safety defects are determined within the current Highways Improvement Term Service Contract.

13.0 TRAINING AND COMPETENCY

- 13.1 All personnel involved in safety inspections must be competent and have successfully completed, or working towards, the UK Highway Inspectors training and certification scheme approved by the UK Roads Board in 2010 or any subsequent revision.
- 13.2 It is desirable that all personnel involved in safety inspections will be included on the National Register of Highway Inspectors currently held by the Institute of Highway Engineers (<http://www.theihe.org/registers/highway-inspectors-register/>)
- 13.3 All personnel undertaking a safety inspection must demonstrate competency in the current Chapter 8 Safety at Street Works and Road Works. The majority of personnel will be qualified to the City & Guilds Street Works standard.

14.0 USE OF THE ELECTRONIC HIGHWAY ASSET MANAGEMENT SYSTEM (EHAMS)

14.1 The process for Highway Inspections using EHAMS is produced below:



APPENDICES

Appendix A – Defect Investigatory Criteria

- A1.1 The following defect descriptions are used to determine potential safety defects within the highway network which require investigation.
- A1.2 The investigatory criteria has been developed using a mixture of best practice, risk assessment, case law and benchmarking against other local authorities.
- A1.3 Defects take into account policies of neighbouring highway authorities and where possible similar parameters have been adopted to ensure consistency.
- A1.4 Defects are listed below and will be applied to the appropriate element of the highway regardless of position. A more detailed description of each defect and the position within the highway is provided within each defect description.
- A1.5 It should be noted that the investigatory criteria is for guidance only. If a defect is determined to be below investigatory levels and requires investigation or assessment it will be recorded.
- A1.6 If a defect/hazard is identified then the officer will decide upon the likely **impact** (if the risk were to occur) and the **probability** of it actually happening, using the matrix below:

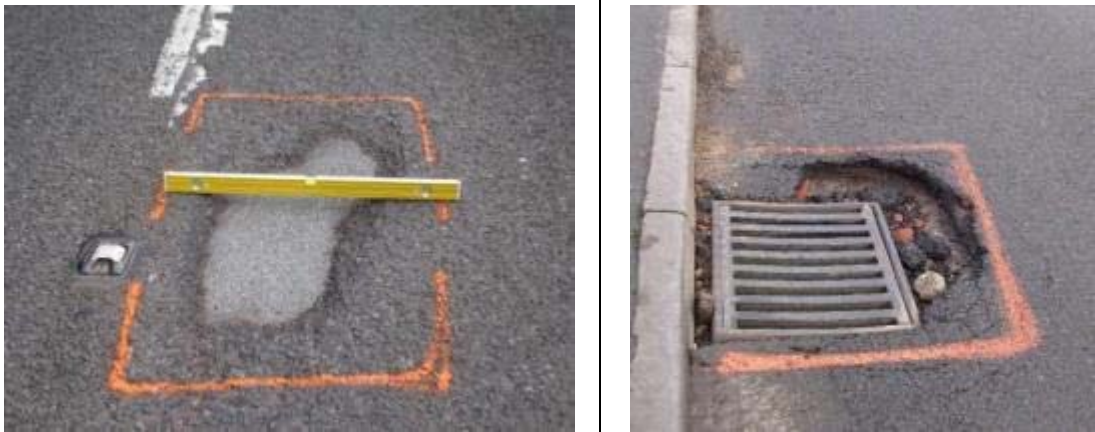
Probability → Impact ↓	Very Low (1)	Low (2)	Medium (3)	High (4)	Very High (5)
Negligible (1)	1	2	3	4	5
Low (2)	2	4	6	8	10
Noticeable (3)	3	6	9	12	15
High (4)	4	8	12	16	20
Extreme (5)	5	10	15	20	25


Category 2.1 Low Risk (28 days) Repair within 28 calendar days	Category 2.0 Medium Risk (7 days) Repair within 7 calendar days	Category 1.1 High Risk (24 hours) Make safe or repair within 24 hours	Category 1.0 Extreme Risk (Immediate) Make safe or repair within 1 ½ hours
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A1.5	Carriageway - POTHOLE	Defect Code: CPOT
Investigatory Criteria An area anywhere in the carriageway where part, or all, of the bituminous/concrete layers have been removed to leave a sharp edged depression. The definition includes carriageway collapses/voids, potholes in surrounds to ironwork and due to missing cat's eyes.		
Minimum dimension (where applicable) At or greater than 40mm deep and 150mm in any horizontal direction. Potholes within defined crossing points (such as pedestrian refuges, pedestrian crossings and dropped crossing points with tactile paving) will become a safety defect when it is of depth greater than or equal to 20mm and it is greater than or equal to 50mm in diameter.		
Sample Photograph(s)		
Response 1. Undertake risk assessment to determine response. 2. Repair pothole (cut and patch).		
Notes Defect will be repaired at the first attempt where possible to avoid repeat visits. If a CAT1 defect is made safe with signing/guarding or a temporary repair is undertaken, a permanent repair will be affected within 28 days.		


A1.6	Carriageway - STEP IN LEVEL	Defect Code: CSTS
Investigatory Criteria Any trench reinstatement or patch in the carriageway, where all or part of the surface has abruptly sunk or heaved compared with the adjoining carriageway.		
Minimum dimension (where applicable) At or greater than 40mm difference in level. A step in level within defined crossing points (such as pedestrian refuges, pedestrian crossings and dropped crossing points with tactile paving) will become a safety defect when it is of depth greater than or equal to 20mm and it is greater than or equal to 150mm in diameter.		
Sample Photograph(s) 		
Response 1. Undertake risk assessment to determine response. 2. Repair step in level (cut and patch).		
Notes Defect will be repaired at the first attempt where possible to avoid repeat visits. If a CAT1 defect is made safe with signing/guarding or a temporary repair is undertaken, a permanent repair will be affected within 28 days.		



A1.7	Carriageway - DEPRESSION	Defect Code: CDEP
Investigatory Criteria A local depression forming a pothole type defect.		
Minimum dimension (where applicable) At or greater than 40mm deep measured over a distance not exceeding 1200mm in direction of travel along the carriageway but more than 300mm wide. A depression within defined crossing points (such as pedestrian refuges, pedestrian crossings and dropped crossing points with tactile paving) will become a safety defect when it is of depth greater than or equal to 50mm and it is greater than or equal to 300mm in diameter.		
Sample Photograph(s) 		
Response 1. Undertake risk assessment to determine response. 2. Repair depression (cut and patch).		
Notes Defect will be repaired at the first attempt where possible to avoid repeat visits. If a CAT1 defect is made safe with signing/guarding or a temporary repair is undertaken, a permanent repair will be affected within 28 days.		



A1.8	Carriageway - EDGE LOSS	Defect Code: CEDG
Investigatory Criteria A location where there is a loss of metalled carriageway from the intended line of road edge and a depth loss. This may be formed by carriageway edge potholes or carriageway edge depressions.		
Minimum dimension (where applicable) A location where there is 250mm or more loss of metalled carriageway from the intended line of road edge and a depth loss greater than or equal to 40mm. <div data-bbox="496 618 1149 931" data-label="Diagram"> </div>		
Sample Photograph(s) <div data-bbox="188 1032 521 1514" data-label="Image"> </div> <div data-bbox="770 999 1070 1514" data-label="Image"> </div>		
Response 1. Undertake risk assessment to determine response. 2. Repair edge loss (cut and patch).		
Notes Defect will be repaired at the first attempt where possible to avoid repeat visits. If a CAT1 defect is made safe with signing/guarding or a temporary repair is undertaken, a permanent repair will be affected within 28 days. This defect should not be used where the highway verge has eroded to form a depression off the carriageway.		


A1.9	Carriageway LONGITUDINAL CRACK	Defect Code: CLCK
Investigatory Criteria A longitudinal crack in the carriageway, including surfacing joints.		
Minimum dimension (where applicable) Where the crack gap is greater than or equal to 40mm with a depth greater than or exceeding 40mm and greater than 300mm in length. A longitudinal crack within defined crossing points (such as pedestrian refuges, pedestrian crossings and dropped crossing points with tactile paving) will become a safety defect when it is of depth greater than or equal to 20mm and it is greater than or equal to 300mm in diameter.		
Sample Photograph(s) 		
Response 1. Undertake risk assessment to determine response. 2. Repair cracking (cut and patch).		
Notes Defect will be repaired at the first attempt where possible to avoid repeat visits. If a CAT1 defect is made safe with signing/guarding or a temporary repair is undertaken, a permanent repair will be affected within 28 days.		


A1.10	Carriageway SETTS, COBBLES, MODULAR & IMPRINT SURFACING	Defect Code: CPOT, CEDG, CDEP
Investigatory Criteria Defective carriageway which is surfaced with setts, cobbles, modular or imprint surfacing.		
Minimum dimension (where applicable) Subject to the same investigatory levels as a bituminous or concrete carriageway.		
Sample Photograph(s) 		
Response 1. Undertake risk assessment to determine response. 2. Repair.		
Notes Defect will be repaired at the first attempt where possible to avoid repeat visits. If a CAT1 defect is made safe with signing/guarding or a temporary repair is undertaken, a permanent repair will be affected within 28 days.		



A1.11	Carriageway HIGH FRICTION SURFACING	Defect Code: N/A
Investigatory Criteria A loss of aggregate or fatting up within a high friction surface.		
Minimum dimension (where applicable) >30% of high friction surface defective		
Sample Photograph(s) 		
Response 1. Undertake risk assessment to determine response. 2. Raise an "Enquiry" to appropriate action officer so that defective area can be added to the High Friction surfacing Programme.		
Notes Permanent action to be undertaken in accordance with the Council's skidding policy.		


A1.12	Carriageway - CHANNEL BLOCKS DISPLACED / DAMAGED	Defect Code(s): CCHV, CCHP
Investigatory Criteria A channel block with a vertical displacement or has become damaged.		
Minimum dimension (where applicable) Any channel block with a vertical displacement greater than or equal to 40mm Any channel with a chip greater than or equal to 40mm depth.		
Sample Photograph(s) 		
Response 1. Undertake risk assessment to determine response. 2. Replace/rebed or repair channel block.		
Notes Defect will be repaired at the first attempt where possible to avoid repeat visits. If a CAT1 defect is made safe with signing/guarding or a temporary repair is undertaken, a permanent repair will be affected within 28 days.		


A1.13	Carriageway – LAYBY SURFACE CONDITION	Defect Code(s): CPOT, CDEP, CEDG
Investigatory Criteria A metalled/concrete layby is assessed using the same criteria as carriageway defects.		
Minimum dimension (where applicable) Surface defects which have a depth of 40mm or more will be investigated. Consideration will be given to the amount of pedestrian movements in the layby when assessing response times.		
Sample Photograph(s)		
		
Response 1. Undertake risk assessment to determine response. 2. Repair (cut and patch).		
Notes Defect will be repaired at the first attempt where possible to avoid repeat visits. If a CAT1 defect is made safe with signing/guarding or a temporary repair is undertaken, a permanent repair will be affected within 28 days.		


A1.14	Footway and Cycleway - POTHOLE	Defect Code: FPOT
Investigatory Criteria An area where part or all of the bituminous layers have been removed or sunk to leave a sharp edged depression. This definition includes potholes in surrounds to ironwork.		
Minimum dimension (where applicable) At or greater than 20mm deep over a minimum horizontal measurement of 50mm.		
Sample Photograph(s) 		
Response 1. Undertake risk assessment to determine response. 2. Repair pothole (cut and patch).		
Notes Defect will be repaired at the first attempt where possible to avoid repeat visits. If a CAT1 defect is made safe with signing/guarding or a temporary repair is undertaken, a permanent repair will be affected within 28 days.		



A1.15	Footway and Cycleway - DEPRESSION	Defect Code: FDEP
Investigatory Criteria An area anywhere in the footway where part or all of the bituminous surface or modular paving has sunk. A rapid change in footway profile.		
Minimum dimension (where applicable) When the vertical displacement is greater than or equal to 50mm over a horizontal measurement of 300mm or less.		
Sample Photograph(s) 		
Response 1. Undertake risk assessment to determine response. 2. Repair depression (cut and patch), or take up/re-level, re-lay (modular)		
Notes Defect will be repaired at the first attempt where possible to avoid repeat visits. If a CAT1 defect is made safe with signing/guarding or a temporary repair is undertaken, a permanent repair will be affected within 28 days.		


A1.16	Footway - TRIP BEHIND KERB	Defect Code: FTKB
Investigatory Criteria An area anywhere in the footway where part or all of footway surface has sunk behind a kerb line (slabs, modules, concrete or bituminous).		
Minimum dimension (where applicable) When the vertical displacement to the kerb is greater than or equal to 20mm over a horizontal measurement of 300mm or more.		
Sample Photograph(s)  		
Response 1. Undertake risk assessment to determine response. 2. Repair cut and patch (bituminous) or take up/re-level, re-lay (modular)		
Notes Defect will be repaired at the first attempt where possible to avoid repeat visits. If a CAT1 defect is made safe with signing/guarding or a temporary repair is undertaken, a permanent repair will be affected within 28 days.		


A1.17	Footway and Cycleway - TREE ROOTS	Defect Code: FROT
Investigatory Criteria A step or heave in the footway being caused by tree roots.		
Minimum dimension (where applicable) A sharp edged step in the footway at or greater than 20mm in height, Where there is significant heaving of the footway, for example a slope greater than 1 in 3, at or greater than 100mm high, will also be recorded as a safety defect. This would exclude an area within 300mm from the boll of the tree.		
Sample Photograph(s) 		
Response 1. Undertake risk assessment to determine response. 2. Cut square and patch to appropriate cross fall where raised areas cause a hazard.		
Notes Defect will be repaired at the first attempt where possible to avoid repeat visits. If a CAT1 defect is made safe with signing/guarding or a temporary repair is undertaken, a permanent repair will be affected within 28 days. If significant root damage is identified consult the County Arboriculturalist.		

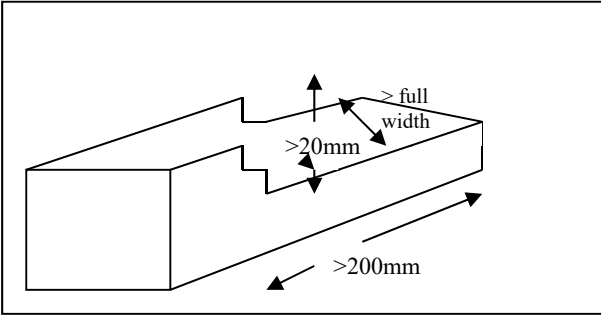

A1.18	Footway and Cycleway STEP IN LEVEL	Defect Code: FSTO, FSTS
Investigatory Criteria An area in the footway where the paved surface has become vertically displaced. This definition includes modules which move (rock) under load. Abrupt difference in level.		
Minimum dimension (where applicable) Vertical displacement at any point is 20mm or above.		
Sample Photograph(s) 		
Response 1. Undertake risk assessment to determine response. 2. Replaced/patched with tarmac, except in Conservation Areas where a like for like replacement will be undertaken.		
Notes Defect will be repaired at the first attempt where possible to avoid repeat visits. If a CAT1 defect is made safe with signing/guarding or a temporary repair is undertaken, a permanent repair will be affected within 28 days.		


A1.19	Footway and Cycleway MISSING SLAB / MODULE	Defect Code: FMSB
Investigatory Criteria An area in the footway where a slab or module is missing.		
Minimum dimension (where applicable) N/A		
Sample Photograph(s)		
Response 1. Undertake risk assessment to determine response. 2. Replaced/patched with tarmac, except in Conservation Areas where a like for like replacement will be undertaken.		
Notes Defect will be repaired at the first attempt where possible to avoid repeat visits. If a CAT1 defect is made safe with signing/guarding or a temporary repair is undertaken, a permanent repair will be affected within 28 days.		


A1.20	Footway - COBBLED AREAS	Defect Code: FCOB
Investigatory Criteria An area set aside for cobbles or a cobble effect needs to be considered carefully as to what constitutes a safety defect taking into account its location and accessibility.		
Minimum dimension (where applicable) A safety defect shall normally be recorded if there is a clear tripping hazard greater than 20mm from the general line of the top of the cobbles, or where the cobbles have broken out or have become loose.		
Sample Photograph(s)		
		
Response 1. Undertake risk assessment to determine response. 2. Replaced/patched with tarmac, except in Conservation Areas where a like for like replacement will be undertaken.		
Notes Defect will be repaired at the first attempt where possible to avoid repeat visits. If a CAT1 defect is made safe with signing/guarding or a temporary repair is undertaken, a permanent repair will be affected within 28 days.		


A1.21	Kerbs - VERTICAL DISPLACEMENT	Defect Code: CKVD
Investigatory Criteria A kerb that has become vertically displaced which is acting as part of the footway or hardened traffic island.		
Minimum dimension (where applicable) Vertical displacement greater than or equal to 20mm, within F2 and F3 routes. Vertical displacement greater than or equal to 30mm, within F4 and F5 routes.		
Sample Photograph(s) 		
Response 1. Undertake risk assessment to determine response. 2. Lift kerb and re-bed.		
Notes Defect will be repaired at the first attempt where possible to avoid repeat visits. If a CAT1 defect is made safe with signing/guarding or a temporary repair is undertaken, a permanent repair will be affected within 28 days.		



A1.22	Kerbs - HORIZONTAL DISPLACEMENT	Defect Code: CKHD
Investigatory Criteria A kerb that has become horizontally displaced which is acting as part of the footway or hardened traffic island.		
Minimum dimension (where applicable) Horizontal displacement greater than or equal to 20mm, within F2 and F3 routes. Horizontal displacement greater than or equal to 30mm, within F4 and F5 routes.		
Sample Photograph(s) 		
Response 1. Undertake risk assessment to determine response. 2. Re-locate kerb to align with adjacent concrete kerbs. If this is not possible due to obstructions other than footway then saw cut kerb vertically to reduce horizontal displacement to less than 20mm.		
Notes Defect will be repaired at the first attempt where possible to avoid repeat visits. If a CAT1 defect is made safe with signing/guarding or a temporary repair is undertaken, a permanent repair will be affected within 28 days.		



A1.23	Kerbs - DAMAGED / CHIPPED	Defect Code: CBKB, CKBC
<p>Investigatory Criteria</p> <p>A kerb that has become damaged or chipped which is acting as part of the footway or hardened traffic island.</p>		
<p>Minimum dimension (where applicable)</p> <p>Any kerb acting as part of the footway or hardened traffic island with damage (chipped) within the length of the kerb, greater than or equal to 20mm depth, 200mm long and full width of kerb from external face.</p> 		
<p>Sample Photograph(s)</p> 		
<p>Response</p> <ol style="list-style-type: none"> 1. Undertake risk assessment to determine response. 2. Replace kerb. 		
<p>Notes</p> <p>Defect will be repaired at the first attempt where possible to avoid repeat visits. If a CAT1 defect is made safe with signing/guarding or a temporary repair is undertaken, a permanent repair will be affected within 28 days.</p>		


A1.24	Kerbs - MISSING	Defect Code: CKMS
Investigatory Criteria A kerb that is missing which is acting as part of the footway or hardened traffic island.		
Minimum dimension (where applicable) N/A		
Sample Photograph(s) 		
Response 1. Undertake risk assessment to determine response. 2. Replace kerb.		
Notes Defect will be repaired at the first attempt where possible to avoid repeat visits. If a CAT1 defect is made safe with signing/guarding or a temporary repair is undertaken, a permanent repair will be affected within 28 days.		


A1.25	Kerbs - ROCKING	Defect Code: CLKB
Investigatory Criteria A kerb that is rocking or loose acting as part of the footway or hardened traffic island.		
Minimum dimension (where applicable) Kerb rocking by 20mm or more.		
Sample Photograph(s) 		
Response 1. Undertake risk assessment to determine response. 2. Rebed kerb.		
Notes Defect will be repaired at the first attempt where possible to avoid repeat visits. If a CAT1 defect is made safe with signing/guarding or a temporary repair is undertaken, a permanent repair will be affected within 28 days.		


A1.26	Kerbs - JOINT OPENING	Defect Code: COJT
Investigatory Criteria Kerbs that have a gap between the joints.		
Minimum dimension (where applicable) A joint greater than or equal to 80mm width (gap) and full kerb depth.		
Sample Photograph(s) 		
Response 1. Undertake risk assessment to determine response. 2. Install drainage extension where appropriate. Patch in accordance with “concrete patch” technique.		
Notes Defect will be repaired at the first attempt where possible to avoid repeat visits. If a CAT1 defect is made safe with signing/guarding or a temporary repair is undertaken, a permanent repair will be affected within 28 days.		


A1.27	Gully / Manhole Cover - MISSING	Defect Code: GMIS, PMSC
Investigatory Criteria Missing ironwork.		
Minimum dimension (where applicable) Any grating or cover that is missing.		
Sample Photograph(s) <div>   </div>		
Response 1. Undertake risk assessment to determine response. 2. Replace missing ironwork. 3. Instigate Section 81 procedure if related to a statutory undertaker.		
Notes Defect will be repaired at the first attempt where possible to avoid repeat visits. If a CAT1 defect is made safe with signing/guarding or a temporary repair is undertaken, a permanent repair will be affected within 28 days.		


A1.28	Gully / Manhole Cover - DAMAGED	Defect Code: GDBG, PDBC
Investigatory Criteria Damaged ironwork.		
Minimum dimension (where applicable) Any cover or grating that is damaged to an extent that it is structurally unsound, in danger of collapse or presents a significant hazard.		
Sample Photograph(s) <div style="display: flex; justify-content: space-around; align-items: center;">   </div>		
Response 1. Undertake risk assessment to determine response. 2. Replace damaged ironwork. 3. Instigate Section 81 procedure if related to a statutory undertaker.		
Notes Defect will be repaired at the first attempt where possible to avoid repeat visits. If a CAT1 defect is made safe with signing/guarding or a temporary repair is undertaken, a permanent repair will be affected within 28 days.		


A1.29	Gully / Manhole Cover - DIFFERENCE IN LEVEL / ROCKING	Defect Code: GDIL, PDLC, PDLF
Investigatory Criteria A high or low frame or cover when the cover within the frame or the frame it, is above or below the immediate surrounding carriageway/footway level. A rocking cover.		
Minimum dimension (where applicable) Any cover, grating, frame or box whose component levels are displaced greater than or equal to 40mm in the carriageway and 20mm in the footway/cycleway or at Pedestrian Crossing Points. This definition includes ironwork that is rocking greater than or equal to 40mm or more in the carriageway and 20mm or more in the footway/cycleway or at Pedestrian Crossing Points.		
Sample Photograph(s)		
		
Response 1. Undertake risk assessment to determine response. 2. Rebed ironwork. 3. Instigate Section 81 procedure if related to a statutory undertaker.		
Notes Defect will be repaired at the first attempt where possible to avoid repeat visits. If a CAT1 defect is made safe with signing/guarding or a temporary repair is undertaken, a permanent repair will be affected within 28 days. Rocking covers in urban areas that move less than 40mm but under traffic cause noise levels unacceptable to persons living in the vicinity, are not a safety defect but should be rectified as soon as possible, using the S.81 notice if appropriate.		

A1.30	Manhole Cover / Box - SMOOTH SURFACE	Defect Code: PMSH
Investigatory Criteria Any cover anywhere in the highway that has a polished, smooth surface.		
Minimum dimension (where applicable) N/A		
Sample Photograph(s) 		
Response 1. Undertake risk assessment to determine response. 2. Anti-slip material to be applied. Replace cover if appropriate. 3. Instigate Section 81 procedure if related to a statutory undertaker.		
Notes Defect will be repaired at the first attempt where possible to avoid repeat visits. If a CAT1 defect is made safe with signing/guarding or a temporary repair is undertaken, a permanent repair will be affected within 28 days.		

A1.31	Footway Manhole Cover / Box - MISSING FILLET OR EDGE SUPPORT	Defect Code: PMRT
Investigatory Criteria Any cover or box in the footway that has lost all or part of the fillet surround.		
Minimum dimension (where applicable) A depth at or greater than 20mm, at or greater than 50mm in width and at or greater than 150mm long.		
Sample Photograph(s) 		
Response 1. Undertake risk assessment to determine response. 2. Clean out loose material and re-mortar around cover.		
Notes Defect will be repaired at the first attempt where possible to avoid repeat visits. If a CAT1 defect is made safe with signing/guarding or a temporary repair is undertaken, a permanent repair will be affected within 28 days.		


A1.32	Footway Manhole Cover / Box - ENCASED PAVING BECOMING LOOSE OR UNEVEN	Defect Code: FMSB, FSTO, FSTS
Investigatory Criteria Where the paved areas have become vertically displaced or loose within an encased cover.		
Minimum dimension (where applicable) Vertical displacement at any point is at or greater than 20mm.		
Sample Photograph(s) 		
Response 1. Undertake risk assessment to determine response. 2. Take up and re-bed paving modules. 3. Instigate Section 81 procedure if related to a statutory undertaker.		
Notes Defect will be repaired at the first attempt where possible to avoid repeat visits. If a CAT1 defect is made safe with signing/guarding or a temporary repair is undertaken, a permanent repair will be affected within 28 days.		

A1.33	Grass, Hedges and Trees - OBSTRUCTED VISIBILITY SPLAY	Defect Code: CRVS, AOVb
Investigatory Criteria Any growth from grass, hedge or trees that obstructs a visibility splay (including forward visibility splays) for a road user, pedestrian, cyclist or motorist.		
Minimum dimension (where applicable) Visibility splay obstructed by growth		
Sample Photograph(s) 		
Response 1. Undertake risk assessment to determine response. 2. Cut back overgrowth as appropriate. 3. Initiate SCC noticing procedure for overgrown vegetation if appropriate.		
Notes Defect will be repaired at the first attempt where possible to avoid repeat visits. If a CAT1 defect is made safe with signing/guarding or a temporary repair is undertaken, a permanent repair will be affected within 28 days. Responsibilities for landowners/occupiers with hedges, trees & bushes adjacent to the highway, and the powers of the County Council in this respect, are contained in section 154 of the Highways Act. Where possible the landowner/occupier should be given the opportunity to undertake the appropriate remedial work and retain ownership of any waste material.		


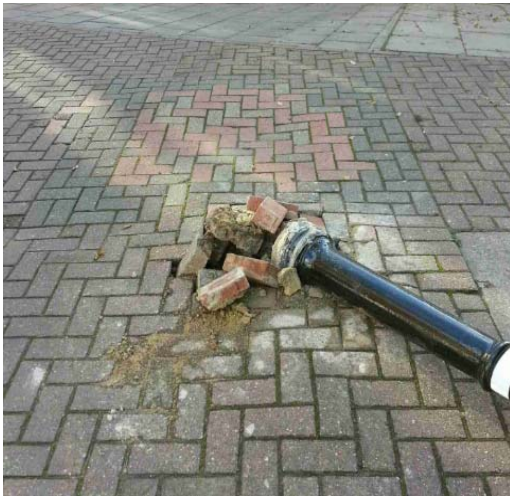
A1.34	Grass, Hedges and Trees - OVERHANGING / OVERGROWTH	Defect Code: FVEG, CVEG
Investigatory Criteria Any hedge, tree or bramble that obstructs or encroaches the highway.		
Minimum dimension (where applicable) Carriageway - Overgrown trees, hedges and bushes are a defect when obstructing the highway user; or obstructing the clear passage of the highway user or it is forcing vehicles, cyclist or pedestrians away from the nearside of the carriageway by more than 1 m; or vehicles have to cross the centreline marking; or if cyclists have to cross a cycle lane boundary marking. Footway and Cycleway - Overhanging in sight lines at locations where pedestrians/cyclists are encouraged to cross the carriageway; or it is overhanging the highway and obstructing the clear passage of pedestrians/cyclists forcing them off the footway/cycleway, or it reduces the vertical clearance above the footway to less than 2.1m or 2.5m on a cycleway. Horizontal encroachment of vegetation across footways shall be tolerated providing that a minimum footway width of 1.2m is available for unimpeded use.		
Sample Photograph(s)		
Response 1. Undertake risk assessment to determine response. 2. Cut back overgrowth as appropriate. 3. Initiate SCC noticing procedure for overgrown vegetation if appropriate.		
Notes Defect will be repaired at the first attempt where possible to avoid repeat visits. If a CAT1 defect is made safe with signing/guarding or a temporary repair is undertaken, a permanent repair will be affected within 28 days. Responsibilities for landowners/occupiers with hedges, trees & bushes adjacent to the highway, and the powers of the County Council in this respect, are contained in section 154 of the Highways Act. Where possible the landowner/occupier should be given the opportunity to undertake the appropriate remedial work and retain ownership of any waste material.		

A1.35	Non-Illuminated Signs - DAMAGED / MISSING / MISALIGNED / DIRTY / FADED / GRAFFITTI / OBSCURED BY VEGETATION	Defect Code: SDAM, SMIS, SMSA, SDRT, SRGA, SHOS, SFAD
Investigatory Criteria Any non-illuminated Regulatory or Chevron sign that is not legible such that the signing is not enforcing the regulation that was intended.		
Minimum dimension (where applicable) N/A		
Sample Photograph(s)  		
 		
 		
Response 1. Undertake risk assessment to determine response. 2. Cut back overgrowth/clean sign/realign sign/replace sign.		
Notes Defect will be repaired at the first attempt where possible to avoid repeat visits. If a CAT1 defect is made safe with signing/guarding or a temporary repair is undertaken, a permanent repair will be affected within 28 days. All other non-illuminated signs will be referred to the Traffic Engineer to be added to the routine maintenance programme.		


A1.36	Non-Illuminated Signs - WRONG HEIGHT / WRONG OFFSET	Defect Code: SWSG, SWOS
Investigatory Criteria Any non-illuminated sign that has slipped down its post or mounted at the incorrect height.		
Minimum dimension (where applicable) Any non-illuminated sign that is mounted at the wrong height (minimum 2150mm where risk of pedestrians, 1500mm where no/low risk of pedestrians, 2400mm where risk of cyclists). Where signs are located on footways and the sign offset from the vehicle face of the adjacent kerb is <450mm (30mph) and <600mm (40mph).		
Sample Photograph(s) 		
Response 1. Undertake risk assessment to determine response. 2. Mount sign at correct height.		
Notes Defect will be repaired at the first attempt where possible to avoid repeat visits. If a CAT1 defect is made safe with signing/guarding or a temporary repair is undertaken, a permanent repair will be affected within 28 days.		


A1.37	TRAFFIC SIGNALS – Obscured by vegetation	Defect Code: TSOB
Investigatory Criteria A traffic signal where the forward visibility to it is obscured.		
Minimum dimension (where applicable)		
Sample Photograph(s) 		
Response <ol style="list-style-type: none"> 1. Undertake risk assessment to determine response. 2. Cut back overgrowth. 		
Notes Defect will be repaired at the first attempt where possible to avoid repeat visits. If a CAT1 defect is made safe with signing/guarding or a temporary repair is undertaken, a permanent repair will be affected within 28 days.		


A1.38	Non-Illuminated Signs - SIGN POST DISLODGED / DAMAGED	Defect Code: SDLG, SDSP
Investigatory Criteria Any non-illuminated sign post that has become dislodged or damaged and poses a hazard to highway users.		
Minimum dimension (where applicable) N/A		
Sample Photograph(s) 		
Response 1. Undertake risk assessment to determine response. 2. Re-bed or replace sign post		
Notes Defect will be repaired at the first attempt where possible to avoid repeat visits. If a CAT1 defect is made safe with signing/guarding or a temporary repair is undertaken, a permanent repair will be affected within 28 days.		


A1.39	Non-Illuminated Bollard – MISSING / DAMAGED	Defect Code: CDBM, CDBA
Investigatory Criteria Any non-illuminated bollard that is missing or damaged and poses a hazard to highway users.		
Minimum dimension (where applicable) N/A		
Sample Photograph(s)		
		
Response 1. Undertake risk assessment to determine response. 2. Re-insert or replace bollard.		
Notes Defect will be repaired at the first attempt where possible to avoid repeat visits. If a CAT1 defect is made safe with signing/guarding or a temporary repair is undertaken, a permanent repair will be affected within 28 days. Defective verge marker posts are not considered to be a safety defect and should be referred to the Traffic Engineer to be added to the routine maintenance programme.		



A1.40	Illuminated Signs, Illuminated Bollards, Streetlighting, Traffic Signals - DAMAGE TO ELECTRICAL INSTALLATIONS	Defect Code: IDBA, ISLD
Investigatory Criteria		
Any electrical installation on the highway that has sustained damage or has exposed wiring.		
Minimum dimension (where applicable)		
N/A		
Sample Photograph(s)		
<div></div> <div></div>		
Response		
1. Undertake risk assessment to determine response. 2. Make safe electrical installation to restrict access by members of the public. 3. Inform responsible SCC contact of electrical installation damage. 4. Instigate Section 81 procedure if related to a statutory undertaker.		
Notes		
Inform the Highway Lighting Engineer (0845 6010939) or the Traffic Control Engineer (0845 3459155), who will arrange suitable action		

A1.41	Roadmarkings - MISSING / WORN	Defect Code: MMIS, MWRN
Investigatory Criteria Give Way and Stop road markings on and adjoining Strategic Route, Main Distributor and Secondary Distributor roads, Stop road markings at traffic signals and zig zag lines at pedestrian crossings.		
Minimum dimension (where applicable) When a roadmarking is missing or faded to such an extent that they are no longer adequate for their intended purpose.		
Sample Photograph(s) 		
Response 1. Undertake risk assessment to determine response. 2. Replace roadmarkings		
Notes Defect will be repaired at the first attempt where possible to avoid repeat visits. If a CAT1 defect is made safe with signing/guarding or a temporary repair is undertaken, a permanent repair will be affected within 28 days. All other roadmarkings will be referred to the Traffic Engineer to be added to the routine maintenance programme.		


A1.42	Road Studs - MISSING / WORN	Defect Code: CPOT, RLOC
Investigatory Criteria Missing or worn roadstuds.		
Minimum dimension (where applicable) A missing road stud which leaves a hole in the carriageway will be treated as a pothole. If more than 10% of the studs are missing or non-functional they will be added to the routine maintenance renewal programme, includes road studs which delineate signal controlled pedestrian crossings.		
Sample Photograph(s) 		
Response 1. Undertake risk assessment to determine response. 2. Repair pothole (cut and patch).		
Notes Defect will be repaired at the first attempt where possible to avoid repeat visits. If a CAT1 defect is made safe with signing/guarding or a temporary repair is undertaken, a permanent repair will be affected within 28 days. If more than 10% of the studs are missing or non-functional they will be referred to the Traffic Engineer to be added to the routine maintenance renewal programme.		


A1.43	Vehicle Restraint Barriers - DAMAGED	Defect Code: ZDSF
Investigatory Criteria A damaged Vehicle Restraint Barrier.		
Minimum dimension (where applicable) Any Vehicle Restraint Barrier that is damaged, unsupported or does not appear to be at a level of 600mm above edge of carriageway when closer than 1500mm from edge of road and from general ground level when greater than 1500mm,.		
Sample Photograph(s) 		
Response 1. Undertake risk assessment to determine response. 2. Make safe vehicle restraint barrier. 3. Refer to Vehicle Restraint Barrier Inspector		
Notes The Vehicle Restraint Barrier Inspector shall investigate the damaged barrier and decide upon and programme the necessary works e.g. Damaged barrier to be replaced, unsupported barrier to be re-fixed, design level to be reinstated		


A1.44	Pedestrian Guardrail - DAMAGED	Defect Code: CDPG
Investigatory Criteria A damaged Pedestrian Guardrail which poses a hazard to the highway user		
Minimum dimension (where applicable) N/A		
Sample Photograph(s) 		
Response 1. Undertake risk assessment to determine response. 2. Make pedestrian guardrail safe. 3. Create Works Order for permanent repair		
Notes		


A1.45	Fences and Barriers - NOT STOCKPROOF / DAMAGED	Defect Code: CNSK
Investigatory Criteria Any hedge or fence adjacent to the carriageway that is considered to be in a condition that will allow livestock to stray onto the highway. Any protruding fence rail that is considered by the Inspector as a hazard.		
Minimum dimension (where applicable) N/A		
Sample Photograph(s) 		
Response 1. Undertake risk assessment to determine response. 2. Make defective fence/barrier safe 3. Create Works Order for permanent repair 4. If appropriate the Highway Authority shall inform the Promoter of the hazard as to the remedial actions required		
Notes		

A1.46	Obstructions - DEBRIS ON THE HIGHWAY	Defect Code: ATRD, CTRA, CDEB
Investigatory Criteria Any debris deposited on the highway and which is a significant hazard to road users/cyclists/pedestrians. This will include items such as: landslip, fallen trees, gravel, glass, fuel spillage, wall collapses, debris dropped from vehicles, animal carcass, mud, etc.		
Minimum dimension (where applicable) N/A		
Sample Photograph(s)  	 	
Response 1. Undertake risk assessment to determine response. 2. Make safe by signing and guarding 3. Clear obstruction. 4. If appropriate the Highway Authority shall inform the Promoter of the hazard as to the remedial actions required		
Notes Refer to "Mud Protocol" when dealing with mud on the highway issues.		

A1.47	Obstructions - STANDING WATER / FLOODING	Defect Code: CFLD, GBLK, FFLD
Investigatory Criteria Where water is standing or flowing within the highway.		
Minimum dimension (where applicable) Impeding the highway user or a risk of flooding to property.		
Sample Photograph(s) 		
Response 1. Undertake risk assessment to determine response. 2. Make safe by signing and guarding 3. Clear obstruction – unblock gully/grip. 4. If appropriate the Highway Authority shall inform the Promoter of the hazard as to the remedial actions required		
Notes Where a permanent action requires gully emptying, jetting, camera investigation or investigatory dig this will be funded from the appropriate routine maintenance drainage budget.		

A1.48	Arrester Beds and Escape Lanes – OBSTRUCTIONS etc.	Defect Code: various
Investigatory Criteria Any obstruction in or in the vicinity of the arrester bed or escape lane. Any compacted, uneven or contaminated material is a defect as it will affect the arresting capability of the material. Any damage to the associated signs is a defect and must be dealt with as defective road traffic signs.		
Minimum dimension (where applicable) N/A		
Sample Photograph(s) 		
Response 1. Undertake risk assessment to determine response. 2. Repair as appropriate		
Notes The District Councils are responsible for the removal of abandoned vehicles under the Refuse Disposal (Amenity) Act 1978. The details required to move a vehicle include the make, model, colour, condition, location and whether there is a current tax disc. Currently, the Council respond to these requests within five working days or within 24 hours in a case of emergency. The police may remove abandoned vehicles if the location of the vehicle is deemed to be dangerous, but each case will be assessed on its merits.		

A1.49	Highway Trees / Hedges - DANGEROUS OR OBSTRUCTING	Defect Code: AUTC, AUTF, AUTC
Investigatory Criteria A tree or hedge that is obviously dead or diseased, leaning precariously towards the highway or it is damaged or has damaged or dead limbs which could fall directly onto the highway user.		
Minimum dimension (where applicable) N/A		
Sample Photograph(s) 		
Response 1. Remove tree or tree limb 2. If appropriate the Highway Authority shall inform the Promoter of the hazard as to the remedial actions required		
Notes		

A1.50	Highway Trees - DEAD, DYING, DISEASED	Defect Code: N/A
Investigatory Criteria A highway tree (or a tree on private land within falling distance of the highway) which appears to be dead, dying or diseased.		
Minimum dimension (where applicable) >25% of leaf loss is a good indicator that a tree is defective.		
Sample Photograph(s) 		
Response 1. Refer to County Arborculturalist 2. If appropriate the Highway Authority shall inform the Promoter of the hazard as to the remedial actions required		
Notes A basic inspection of all highway trees that can be seen from the carriageway is included in routine safety inspections. All safety inspectors receive basic arboricultural training and guidance and a qualified arboricultural advisor carries out an inspection when specialist knowledge is required.		

APPENDIX B

Somerset County Council - Highway Safety Inspection Manual

Record of Revisions

Issue Date	Status	Notes
March 1996	Superseded	The first formal Highway Inspection Manual produced by Somerset County Council. Defined safety inspection frequencies, defect types, priorities and investigatory levels
October 2004	Superseded	Revised the March 1996 Inspection Manual as follows: <ul style="list-style-type: none">• The Code of Practice for Maintenance Management published in 2001, was used as guidance for drafting this Manual.• Safety defects defined as Category 1 and Category 2• Hierarchy of safety inspection frequencies defined based on factors such as historical traffic patterns, freight routes, access to local communities and winter maintenance requirements.• SCC introduced new hierarchy for Local Collector Road (4bi)• Tolerances for inspection frequencies introduced• CDM responsibilities defined• Better definition of response times and investigatory levels
January 2006	Superseded	Revised the October 2004 Inspection Manual as follows: <ul style="list-style-type: none">• Well Maintained Highways - The Code of Practice for Highway Maintenance Management (The Code of Practice) published in July 2005, was used as guidance for drafting this Manual• Highways with historic features that would not be acceptable in a current highway design are noted.• The response time of "Programme" changed to a specific time e.g. "1month"• New defect inserted: Signs at wrong height/offset• New defect inserted: obstructions within Arrester Bed

		<ul style="list-style-type: none"> • New defect inserted: apparatus across the highway – wrong height • New defect inserted – cellars under the highway
20 April 2007	<p>Amended page (45) inserted into January 2006 manual</p> <p>Amended page (46) inserted into January 2006 manual</p>	<ul style="list-style-type: none"> • Damaged concrete kerbs criteria amended. Investigatory criteria only apply to “very busy” and “busy” footways – other footways are referred to HSM. Decision taken following risk v cost analysis. • Kerb joint opening investigatory criteria amended from 50mm wide/20mm deep to 75mm wide/full depth of kerb
December 2007	Superseded	<p>Revised the January 2006 Inspection Manual as follows:</p> <ul style="list-style-type: none"> • New page inserted for carriageways with special surfacing (e.g. modular, imprint). • Added new response time for $\geq 100\text{mm}$ in lay-bys • $\geq 50\text{mm}$ depression in very busy footways, response time changed from 1 month to 7 days. • Trip behind kerb in footway – clarified that all types of footway surfaces are included within the definition. • Edge deterioration or roll-over within footway – response times deleted and action changed to “as directed by Highway Service Manager”. • Missing covers/gratings: response times have been defined. • Broken or dislodged covers/gratings: response times have been defined. • The action for an incorrect type of cover has been amended to refer to covers which are within defined crossing points. • Horizontal encroachment caused by vegetation across footways shall be tolerated providing that a minimum footway width of 1.2m is available for unimpeded use (urban and rural locations). • Page removed – unauthorised signs, display goods on the highway. • New page inserted for rutting of

		verges within urban areas.
April 2009	Superseded	<ul style="list-style-type: none"> • Text re-written to reflect current practices relating to use of Confirm. • Health and Safety issues for Inspectors/Superintendents (method of working/risk assessments have been moved to the Project H&S file. • References to contract arrangements prior to 1st April 2008 have been removed. • References to specific contractors and their working practices have been removed and generic statements inserted. • The “1 Month” response time has been standardised to “28 days” to clarify the actual number of days required to repair safety defects. • Response time for carriageway footway and sign defects which were 3 months now 28 days. • Clarified that Missing/Broken/Dislodged covers, frames and boxes are applicable to carriageway and footway.
April 2011	Superseded	<ul style="list-style-type: none"> • Page 7 – clarified number of Planned Inspections undertaken during a year. • Page 7 – clarified that Enquiries will be inspected within 3 working days. • Page 8 – statement regarding additional inspections. • Page 8 – statement regarding the suspension of planned inspections due to exceptional circumstances. • Page 10 – References to statutory undertakers have been removed from the individual safety defect actions and a generic paragraph included. • Page 23 – Carriageway setts, cobbles, modular paving - following Somerset County Council’s policy decision on 16 Feb 2011, safety defects in all paving, including conservation areas, will be replaced/patched with tarmac. • Page 32 – response times for “verge encroachment and other

		<p>trips" amended for Very Busy (24 hours) and Busy (7 days) footways to be consistent with response times for other footway trips.</p> <ul style="list-style-type: none"> • Page 33 – Modular footway trips - following Somerset County Council's policy decision on 16 Feb 2011, safety defects in all paving, including conservation areas, will be replaced/patched with tarmac. • Page 34 – Cobbled footway - following Somerset County Council's policy decision on 16 Feb 2011, safety defects in all paving, including conservation areas, will be replaced/patched with tarmac. • Page 51 – Non-illuminated signs – clarified which signs are classed as safety defects and those that can be referred to Traffic Engineer for routine maintenance. • Page 55 – Road markings – clarified which road markings are classed as safety defects and those that can be referred to Traffic Engineer for routine maintenance. • Page 62 - Blocked drainage system - following Somerset County Council's policy decision on 16 Feb 2011, only clear blocked gullies and drains to prevent injury or damage to property from flooding. • Page 69 – Highway trees – clarification of highway tree inspections.
April 2013	Superseded	<ul style="list-style-type: none"> • Somerset County Council decision to remove 16 defects from the HSIM to be put into routine programmes of work. Appendix C provides more detail. Defects removed are: <ul style="list-style-type: none"> ○ Carriageway transverse joint/crack ○ Debris in footway ○ Footway edge deterioration / rollover ○ Flooding in footway ○ Footway longitudinal crack / joint

		<ul style="list-style-type: none"> ○ Footway transverse crack / joint ○ Footway vegetation ○ Damaged sign plate ○ Faded sign plate ○ Damaged sign post ○ Damaged marker post ○ Damaged sign fixings ○ Sign obscured by vegetation ○ Misaligned sign ○ Cycleway edge deterioration / rollover ○ Cycleway transverse crack / joint <ul style="list-style-type: none"> ● Clarified the response times for Town Centre inspections for footway and carriageway safety defects (page 5). ● Clarified “pedestrian crossing points” across a carriageway (Page 10) ● Risk Management statement added (page 5) ● Risk Register explained (page 6) and included as Appendix D) ● Amended response times for layby deterioration (page 26).
October 2018		<ul style="list-style-type: none"> ● Incorporates recommendations from Well Managed Highway Infrastructure – A Code Of Practice (October 2016)

APPENDIX C
SOMERSET COUNTY COUNCIL - RISK REGISTER OF HIGHWAY SAFETY DEFECTS
GUIDANCE FOR SCC OFFICERS
OCTOBER 2018

Item	Defect	Extent	Hierarchy*	Probability	Impact	Risk Factor	Response Priority
Carriageway	pothole	>100mm depth x 150mm wide	2, 3, 4	5	5	25	Immediate
		>100mm depth x 150mm wide	5, 6	4	4	16	24 hours
		>100mm depth x 150mm wide	7, 8, 9a, 9b, 10	2	4	8	7 days
		>100mm depth x 150mm wide	11	1	4	4	Consider an appropriate response
		40mm – 100mm depth x 150mm wide	2, 3, 4	4	4	16	24 hours
		40mm – 100mm depth x 150mm wide	5, 6	4	3	12	7 days
		40mm – 100mm depth x 150mm wide	7, 8, 9a, 9b, 10	3	2	6	28 days
		40mm – 100mm depth x 150mm wide	11	1	3	3	Consider an appropriate response
	step in level	>100mm depth x 150mm wide	2, 3, 4	5	5	25	Immediate
		>100mm depth x 150mm wide	5, 6	4	4	16	24 hours
		>100mm depth x 150mm wide	7, 8, 9a, 9b, 10	4	4	16	24 hours
		>100mm depth x 150mm wide	11	1	4	4	Consider an appropriate response

	40mm – 100mm depth x 150mm wide	2, 3, 4	5	5	25	24 hours
	40mm – 100mm depth x 150mm wide	5, 6	4	3	12	7 days
	40mm – 100mm depth x 150mm wide	7, 8, 9a, 9b, 10	3	2	6	28 days
	40mm – 100mm depth x 150mm wide	11	1	3	3	Consider an appropriate response
depression	>100mm deep <1200mm in direction of travel >300mm wide	2, 3, 4	5	5	25	Immediate
	>100mm deep <1200mm in direction of travel >300mm wide	5, 6	4	4	16	24 hours
	≥ 100mm deep <1200mm in direction of travel >300mm wide	7, 8, 9a, 9b, 10	4	3	12	7 days
	≥ 100mm deep <1200mm in direction of travel >300mm wide	11	1	4	4	Consider an appropriate response
	≥ 400mm – 100mm deep <1200mm in direction of	2, 3, 4	4	4	16	24 hours

	travel >300mm wide					
	≥ 400mm – 100mm deep <1200mm in direction of travel >300mm wide	5, 6	4	3	12	7 days
	≥ 400mm – 100mm deep <1200mm in direction of travel >300mm wide	7, 8, 9a, 9b, 10	3	2	6	28 days
	≥ 400mm – 100mm deep <1200mm in direction of travel >300mm wide	11	1	3	3	Consider an appropriate response
	edge loss (edge pothole)					
	≥ 100mm depth x 250mm wide	2, 3, 4	5	5	25	Immediate
	>100mm depth x 250mm wide	5, 6	4	4	16	24 hours
	≥ 100mm depth x 250mm wide	7, 8, 9a, 9b, 10	4	3	12	7 days
	≥ 100mm depth x 250mm wide	11	1	4	4	Consider an appropriate response
	≥ 40mm-100mm deep x 250mm wide	2, 3, 4	4	4	16	24 hours
	≥ 40mm-100mm deep x 250mm wide	5, 6	4	3	12	7 days
	≥ 40mm-	7, 8, 9a, 9b, 10	3	2	6	28 days

		100mm deep x 250mm wide					
		≥ 40mm-100mm deep x 250mm wide	11	1	3	3	Consider an appropriate response
	longitudinal cracking	≥40mm deep, ≥40mm wide, ≥300mm length	2, 3, 4	4	4	16	24 hours
		≥40mm deep, ≥40mm wide, ≥300mm length	5, 6	4	3	12	7 days
		≥40mm deep, ≥40mm wide, ≥300mm length	7, 8, 9a, 9b, 10	3	2	6	28 days
		≥40mm deep, ≥40mm wide, ≥300mm length	11	1	3	3	Consider an appropriate response
Channels	vertical displacement	≥40mm	2, 3, 4	4	4	16	24 hours
		≥40mm	5, 6	4	3	12	7 days
		≥40mm	7, 8, 9a, 9b, 10	3	2	6	28 days
		≥40mm	11	1	3	3	Consider an appropriate response
Kerbs	vertical displacement	≥ 20mm	F2	4	4	16	24 hours
		≥ 20mm	F3	4	3	12	7 days
		≥ 20mm	F4, F5, F6	2	4	8	28 days
	horizontal displacement	≥ 20mm	F2	4	4	16	24 hours
		≥ 20mm	F3	4	3	12	7 days
		≥ 20mm	F4, F5, F6	2	4	8	28 days
	damaged	≥ 20mm depth	F1	4	4	16	24 hours
		≥ 20mm depth	F2	4	3	12	7 days
		≥20mm depth	F4, F5, F6	2	4	8	28 days
	joint opening	≥ 80mm wide	F1	4	4	16	24 hours

Footway		≥ 80mm wide	F2	4	3	12	7 days
		≥ 75mm wide	F3, F4	3	2	6	28 days
	pothole	≥ 50mm deep, ≥ 50mm wide	F2	5	5	25	Immediate
		≥ 50mm deep, ≥ 50mm wide	F3	4	4	16	24 hours
		≥ 50mm deep, ≥ 50mm wide	F4, F5, F6	3	2	6	28 days
		>20mm deep < 50mm deep	F2	4	4	16	24 hours
		≥ 20mm deep < 50mm deep	F3	4	2	12	7 days
		≥ 20mm deep < 50mm deep	F4, F5, F6	3	2	6	28 days
	depression	≥ 50mm deep, <300mm wide	F2	4	3	12	7 days
		≥ 50mm deep, <300mm wide	F3, F4, F5, F6	3	2	6	28 days
	trip behind kerb	≥ 40mm deep, 300mm wide	F2	5	5	25	Immediate
		≥ 40mm deep, 300mm wide	F3	4	4	16	24 hours
		≥ 40mm deep, 300mm wide	F4	3	2	6	28 days
		≥ 20mm deep <40mm deep, 300mm wide	F1	4	4	16	24 hours
		≥ 20mm deep <40mm deep, 300mm wide	F2	4	3	12	7 days
		≥ 20mm deep <40mm deep, 300mm wide	F4, F5, F6	3	2	6	28 days
	tree roots	≥ 100mm	F2	5	5	25	Immediate

		heave					
		≥100mm heave	F3	4	4	16	24 hours
		≥100mm heave	F4	4	3	12	7 days
		>100mm heave	F5, F6	3	2	6	28 days
		≥ 40mm step	F2	5	5	25	Immediate
		≥ 40mm step	F3	4	4	16	24 hours
		≥ 40mm step	F4	4	4	16	24 hours
		≥ 40mm step	F5, F6	3	2	6	28 days
		≥ 20mm <40mm step	F2	5	5	25	Immediate
		≥ 20mm <40mm step	F3	4	3	12	7 days
		≥ 20mm <40mm step	F4, F5, F6	3	2	6	28 days
	step in level	≥ 40mm deep	F2	5	5	25	Immediate
		≥ 40mm deep	F3	4	4	16	24 hours
		≥ 40mm deep	F4, F5, F6	3	2	6	28 days
		≥ 20mm <40mm deep	F2	4	4	16	24 hours
		≥ 20mm <40mm deep	F3	4	3	12	7 days
		≥ 20mm <40mm deep	F4, F5, F6	3	2	6	28 days
Ironwork	missing	missing	2, 3, 4, 5, 6, 7, 8, 9a, 9b, 10, 11	5	5	25	Immediate
		missing	F2, F3, F4, F5, F6	5	5	25	Immediate
	damaged	damaged	2, 3, 4, 5	5	5	25	Immediate
		damaged	6, 7, 8, 9a, 9b, 10, 11	4	4	16	24 hours
		damaged	F2, F3, F4, F5	5	5	25	Immediate
		damaged	F6	4	4	16	24 hours

Difference in level / rocking	≥ 40mm displaced	2, 3, 4	4	4	16	24 hours
	≥ 40mm displaced	5	4	3	12	7 days
	≥ 40mm displaced	6, 7, 8, 9a, 9b, 10, 11	3	2	6	28 days
	≥ 20mm displaced	F2	4	4	16	24 hours
	≥ 20mm displaced	F3	4	3	12	7 days
	≥ 20mm displaced	F4, F5, F6	3	2	6	28 days
Smooth surface	smooth	2, 3, 4, 5, 6, 7, 8, 9a, 9b, 10, 11 F2, F3, F4, F5, F6	3	2	6	28 days
Missing fillet	> 40mm deep, >50mm wide, >150mm long	F2	5	5	25	Immediate
	≥ 40mm deep, >50mm wide, >150mm long	F3, F4	4	4	16	24 hours
	≥ 40mm deep, >50mm wide, >150mm long	F5, F6	3	2	6	28 days
	≥ 20mm deep, >50mm wide, >150mm long	F2	4	4	16	24 hours
	≥ 20mm deep, >50mm wide, >150mm long	F3	4	3	12	7 days
	≥ 20mm deep, >50mm wide, >150mm long	F4, F5, F6	3	2	6	28 days

Non-illuminated signs	Wrong height (risk of pedestrians)	Minimum 2150mm	F2	5	5	25	Immediate
		Minimum 2150mm	F3	4	4	16	24 hours
		Minimum 2150mm	F4	4	3	12	7 days
		Minimum 2150mm	F5, F6	3	2	6	28 days
	Wrong height (low risk of pedestrians)	Minimum 1500mm	2, 3, 4, 5, 6, 7, 8, 9a, 9b, 10, 11	3	2	6	28 days
	Illegible Regulatory sign		2, 3, 4, 5, 6, 7, 8, 9a, 9b, 10, 11	4	4	16	24 hours
	Illegible Chevron sign		2, 3, 4, 5, 6, 7, 8, 9a, 9b, 10, 11	4	4	16	28 days
Drainage	Blocked drainage (highway user impeded)		2, 3, 4, 5	5	5	25	Immediate
			6, 7, 8, 9a, 9b, 10, 11	4	4	16	24 hours
Road stud	Missing		2, 3, 4, 5, 6, 7, 8, 9a, 9b, 10, 11	Treat as pothole and apply carriageway definition			
Vehicle restraint barriers	Damaged		2, 3, 4	5	5	25	Immediate
			5, 6, 7, 8, 9a, 9b, 10, 11	4	4	16	24 hours

*Hierarchy key

Carriageway	
2	Strategic Route
3	Main Distributor
4	Secondary Distributor
5	Link Road
6	Local Link Road
7	Local Access Road
8	Minor Road
9a	Lanes
9b	Minor Lanes
10	Green Lanes and Tracks
11	Disused Tracks
Footway	
F2	Primary Walking Routes
F3	Secondary Walking Routes
F4	Link Footways
F5	Local Access Footways
F6	Minor Footways