



# Road Safety Inspection Manual

**June 2018**



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<b>Revision</b>	<b>Purpose</b>	<b>Date</b>	<b>Approved By</b>
CMT Final	For Approval by CMT Committee	June 18	

## **1.0 CONTROL OF DOCUMENT**

1.1 The Roads Operations Manager will hold the signed original copy of each revision of the Aberdeen City Council (ACC), Roads Safety Inspection Manual.

## **2.0 INTRODUCTION TO THE POLICY**

2.1 As required by Section 1 Roads (Scotland) Act 1984, “a local authority shall manage and maintain all such roads in their area as are for the time being entered in a list prepared and kept by them”. ACC is bound to comply with this legislation and manage its roads accordingly.

2.2 The establishment of an effective regime of inspection, assessment and recording is the most crucial component of road maintenance. The safety inspection regime provides the basic information for addressing the first core objective of roads maintenance, network safety.

2.3 In line with the principles of ‘Well-managed Highway Infrastructure: A Code of Practice (CoP)(October 2016)’, guidance for safety inspections has been established with consideration given to specific local circumstances and the relative risks and consequences associated with these. The characteristics of the regime, including the frequency of inspection, items to be recorded, and the nature of response are defined by this Road Safety Inspection Manual, which is set in the context of ACC’s overall policy and maintenance strategy.

## **3.0 PURPOSE OF SAFETY INSPECTIONS**

3.1 Safety inspections are designed to identify all defects likely to cause danger or serious inconvenience to users of the network or the wider community. Such defects include those that require urgent attention as well as those where the locations and sizes are such that longer periods of response are appropriate.

3.2 The Safety inspection regime forms a key aspect of ACC’s strategy for managing liability and risk. The computerised inspection system, used by ACC, effectively manages the inspection patterns and frequency. Built in safeguards minimize the chance of inspections being missed or duplicated.

3.3 ACC uses its safety inspection process, monitoring information and a regime of proactive maintenance to reduce risk and provide the public with a safer roads network.

3.4 When a repair is made to correct a safety defect, the only consideration made will be to eliminate the risk associated with that defect as quickly and safely as reasonably possible. Repairs made may be temporary or permanent and may not necessarily be made using the same materials as those surrounding the defect, especially in areas of non-standard road or footpath construction material.

## **4.0 DEFINITIONS**

4.1 Unless otherwise stated, terms used in this manual are as defined in CoP.

#### 4.2 Defects are classed in:

- Category 1 - Immediate action: Those that require prompt attention because they represent an immediate or imminent hazard or because there is a risk of short-term structural deterioration. Category 1 defects shall be corrected or made safe at the time of the inspection and cannot be left without intervention.
- Category 2a - Repair within 2 working days: Defects which, following a risk assessment, are deemed not to represent an immediate or imminent hazard or risk of short term structural deterioration. Defects that represent a medium risk to road users but are liable to deteriorate at a rate, or in a manner, to move them to a category 1 defect if not addressed promptly.
- Category 2b - Repair within 7 working days: Defects which, following a risk assessment, are deemed not to represent an immediate or imminent hazard or risk of short term structural deterioration. Defects that represent a medium risk to road users or have a risk of short term deterioration.
- Category 3 - Repair within 28 working days: Defects which, following a risk assessment, are deemed not to represent an immediate or imminent hazard or risk of short term structural deterioration. Defects that represent a low risk to road users.
- Category 4 - Defects that do not present a safety risk at the time of inspection and are not likely to become safety issues before the time of the next scheduled inspection.

4.3 Further guidance about the level of response to defects is contained in Section 5.0 and Appendix A of this document.

## 5.0 FREQUENCY AND METHODOLOGY OF INSPECTIONS

5.1 The CoP sets out advice for authorities regarding safety inspections frequencies based upon categories within the network hierarchy (Table 1). These have been linked to ACC's network to determine the frequency of safety inspections on the ACC network. Where appropriate the following considerations have been taken into account:

- The hierarchy of the network
- Traffic use
- Incident or insurance history
- Characteristics of adjoining network elements
- Wider policy and operational considerations

Where two categories of the network intersect, the category with the higher intervention levels shall be applied to both at that location.

**Table 1 – ACC Roads Hierarchy**

The below table is an adaption of the one found in the CoP and explains how roads are categorised within ACC’s network.

<b>Carriageway category</b>	<b>Hierarchy description</b>	<b>Type of road general description</b>	<b>description</b>
<b>1</b>	<b>Motorway</b>	<b>N/A</b>	<b>N/A</b>
<b>2</b>	<b>Strategic Route</b>	Principal A Roads between Primary Destinations	Routes for fast moving long distance traffic with little frontage access or pedestrian traffic. Speed limits generally in excess of 40mph with few junctions.
<b>3a</b>	<b>Main Distributor</b>	Major Urban Network and Inter-Primary Links. Short to medium distance traffic.	Routes between strategic routes and linking urban centres to the strategic network with limited frontage access. In urban areas speed limits are usually 40mph or less.
<b>3b</b>	<b>Secondary Distributor</b>	Classified Roads (B and C Class) and unclassified urban bus routes carrying local traffic with frontage access and frequent junctions.	In rural areas these roads link the larger villages and HGV generators to the Strategic and Main Distributor Network. In built up areas these roads have 30mph speed limits and high pedestrian activity.
<b>4a</b>	<b>Link Road</b>	Roads linking between the Main and Secondary Distributor Network with frontage access and frequent junctions.	In rural areas these roads link the smaller villages to the distributor roads. They are of varying width and not always suitable of carrying two-way traffic. In urban roads they are residential or industrial inter connecting roads with 30mph speed limit.
<b>4b</b>	<b>Local Access Road</b>	Roads serving limited numbers of properties carrying only local access traffic.	In rural areas these roads serve small settlements and provide access to individual properties and land. They are often single lane and unsuitable for HGV and in residential areas they are generally residential loop roads or cul-de-sacs.

**Table 2 – ACC Footway Hierarchy**

The below table is an adaption of the one found in the CoP and explains how footways are categorised within ACC’s network.

Category	Category name	Description
1a	Prestige Walking Zones	Very busy areas of town centres with high public space and street scene contribution.
1	Primary Walking Routes	Busy urban shopping and business areas and main pedestrian routes.
2	Secondary Walking Routes	Medium usage routes through local areas feeding into primary routes, local shopping centres etc.
3	Link Footways/Footpaths	Linking local access footways through urban areas and busy rural footways.
4	Local Access Footways/Footpaths	Footways associated with low usage, short estate roads to the main routes and cul-de-sacs.

5.2 Planned Safety Inspections shall be carried out at the frequencies shown in Table 3 and within the tolerances shown in Table 4.

**Table 3 – ACC Roads Inspection Frequencies**

Feature	Description (as per CoP)	Category (as per CoP)	Inspection frequency
Roads	Strategic Routes	2	Monthly (Min 10/year)
	Main Distributor	3a	Monthly (Min 10/year)
	Secondary Distributor	3b	Monthly (Min 10/year)
	Link Road	4a	Every 3 months
	Local Access	4b	Annually
	All other locations (Carparks)	4b	Annually
Footways	Prestige Walking Zones	1a	Monthly (Min 10/year)
	Primary Walking Routes	1	Monthly (Min 10/year)
	Secondary Walking Routes	2	Every 3 months
	Link Footway	3	Every 6 months
	Local Access Footways	4	Annually
Cycle Route	Part of Carriageway		As per associated road
	Remote From Carriageway		Every 6 Months
	Cycle Trails		Annually

**Table 4 - Safety Inspection Tolerances**

For each inspection frequency listed in table 3, the below table outlines the maximum time there will be between each inspection.

<b>Frequency of inspection</b>	<b>1 month</b>	<b>3 months</b>	<b>6 months</b>	<b>1 year</b>
<b>Tolerance</b>	+/- 5 days	+/- 7 days	+/-20 days	+/- 27days
<b>Max period between inspection</b>	36 days	100 days	200 days	392 days

**Note: all time periods are in calendar days NOT working days.**

5.3 The inspection frequencies found in table 3 will be the minimum number of inspections (Excepting that other factors may preclude some inspections, e.g. weather, sickness etc).

5.4 Safety inspections are designed to identify all defects likely to create danger or serious inconvenience to the users of the network or the wider community. The risk of danger is assessed on site and the defect is categorised as either Category 1, 2a, 2b, 3 or 4 and the appropriate response time is then allocated based on the guidelines in Appendix A.

5.5 Safety inspections are undertaken in a slow-moving vehicle by a single person driving and inspecting. Consideration must be given to the safety of the inspection personnel and other road users during the driven inspections. The inspection covers all areas within the City boundary along that road. In urban areas, particularly when inspecting footways, it may be difficult to ensure that the inspection is carried out correctly by vehicle and it may be necessary to carry out these inspections by foot. Walked inspections will be the normal method for town centre inspections. Cycle ways may also be inspected by visual inspection from a vehicle or by bicycle.

5.6 Defects that are reported by the public will be inspected within 5 working days and the appropriate level of response will be determined using the guidelines set out within this document.

5.7 Section 140 of the New Roads and Street Works Act 1991 (NRSWA) places a duty on undertakers (utilities) to maintain their apparatus to the reasonable satisfaction of the Roads Authority. However recent case law has shown that Roads Authorities have a joint liability with the undertakers.

5.8 When an inspection identifies a particular piece of defective apparatus that is deemed to be unsafe and requiring attention, notification will be sent to the appropriate party requiring them to carry out remedial action under Section 140 of the Act. This notification should detail the apparatus and its location complete with maps, postcode and grid reference.

5.9 If remedial action is not carried out within a reasonable timescale, the Roads Authority may carry out repairs themselves and recharge their reasonable costs (as per Section 140 of the NRSWA 1991).



## **6.0 ADDITIONAL INSPECTIONS AND EXCEPTIONAL CIRCUMSTANCES**

Additional inspections may be necessary in response to user or community concern, as a result of incidents, extreme weather conditions or monitoring information. These have been identified through the risk management process and have been summarised below. The occurrence of any such inspection and its outcome is recorded in the same format as a programmed safety inspection but is recorded as being an additional inspection.

### **6.1 Reactive inspections -**

An appropriate person with the relevant experience and knowledge responds to user or community concerns and requests for service. Based upon the severity of the situation, a site visit may be required to make a more thorough assessment of the safety or service request. The defects are assessed with the same criteria and intervention levels as those within the programmed Safety Inspection process.

### **6.2 Find and Fix -**

This type of operation can be beneficial when dealing with multiple defects in a particular area. Response gangs are allocated to routes on a prioritized basis for initial assessment and making safe where possible. Defects that cannot be made safe immediately are referred to an appropriate person for prioritisation and additional resources.

### **6.3 Historic Features -**

Many roads have been adopted with historic features that would not be acceptable in a current road design. This might include steps, cellar openings or drainage arrangements that present potential trip situations worse than the intervention levels suggested in this document. These should not be recorded as defects, as in law the road has been adopted with these encumbrances and the public must take appropriate care.

### **6.4 Monitoring of protection -**

Where defects with potentially serious consequences for network safety are made safe by means of temporary signing or other protection, arrangements may be made for a special inspection regime to ensure the continued integrity of the protection is maintained until a repair can be made. This should be recorded by the work operative.

### **6.5 Exceptional circumstances -**

In exceptional circumstances, inspections may not be able to be carried out. For instance, where road defects are hidden by static objects such as bins, parked vehicles, skips etc.

6. 6 During periods of extreme weather, the safety inspection policy may be suspended. The authority for such action lies with ACC's Roads Operations Manager. Suitable records of these instances are kept.

## **7.0 ITEMS FOR INSPECTION**

7.1 Items included in safety inspections are outlined in Appendix A. The roads inspectors also record any other defects not included on this list that they consider are likely to create danger or serious inconvenience to the community.

7.2 Additional inspections relating to centre and edge line road markings, road studs and road signs may be carried out in the hours of darkness to assess reflectivity. The occurrence of any such inspection and its outcome is recorded in the same format as a programmed Safety Inspection but is recorded as being an additional inspection. Any work resulting is carried out as programmed work.

7.3 All trees within the adopted road network are required to be inspected during the routine safety inspections. Any defect or feature likely to cause an obvious danger by encroachment, visibility obstruction, damage, ill health or trip hazard is recorded and the appropriate action taken. Under Section 83, or 91, of the Roads (Scotland) Act 1984, ACC deals, by consultation with the owners and if required a Notice, with hedges, trees and shrubs growing on adjacent land which overhang the road. ACC carries out additional tree inspections with qualified arboriculturalists.

7.4 All Safety Inspectors receive some basic arboricultural guidance but a qualified arboricultural advisor carries out an inspection when specialist knowledge is required. Their advice is also sought before any work is carried out on tree roots causing a problem to a footway surface. Qualified tree surgeons will be used when conducting tree maintenance work for ACC.

## **8.0 DEGREE OF DEFICIENCY AND NATURE OF RESPONSE**

8.1 The risk-based approach to defect categorisation provided within this document takes consideration of the roads hierarchy on which a defect lies. An assessment, based upon a number of risk factors (outlined below and in Appendix A) will consider the context of the defect as well as its nature, is used to determine an appropriate response time.

8.2 Defects that represent an immediate or imminent hazard shall be corrected or made safe at the time of the inspection.

8.3 Other significant defects which, following a risk assessment, are deemed not to represent an immediate or imminent hazard, or when there is not deemed to be a risk of rapid structural deterioration, shall be repaired within the timescales shown in Table 5.

8.4 Using a risk-based approach to defect categorisation, Inspectors will use on-site judgement when determining the required response to any defect. In determining the correct response time and intervention they will consider all relevant factors that determine the potential safety implications of a defect. These include, but are not limited to:

- The size - width, length and depth and general extent of the defect (see intervention categories in Appendix A)
- The road class and hierarchy

- The location of the defect relative to the probable positioning of road users, especially vulnerable road users – e.g. is a defect in a normal wheel track or on a crossing
- The volume of traffic at the defect location
- Local knowledge of the road and how it is utilised by road users
- The speed limit of the road
- The nature of the defect and its interaction with other defects
- The weather conditions and potential results thereof e.g. potential of freezing surface water in low temperatures.

8.5 The intervention levels, the making safe, and the permanent repair times for each item listed for inspection 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. The subsequent intervention levels apply as a minimum (unless the feature is by design) and are set out in Table 6 and Appendix A.

8.6 Where a permanent repair will necessitate obtaining details of equipment from statutory undertakers before work can be safely carried out, a timescale of 3 months will apply. This will generally only apply where excavations are required.

8.7 ACC has a varied road and footway network. From high volume dual-carriageway in congested urban environments to single lane rural roads connecting the outlying areas. Road and footway users should expect to find a condition which is safe and consistent with the type of and location of that particular infrastructure. A road user could reasonably expect the condition of a principal class A road, carrying high volumes of traffic at speed, to be in a higher state of repair to an unclassified road in a very rural environment. This concept of fit for purpose roads is captured in the Code of Practice by dividing road types up into classes and maintenance hierarchies. As such, Aberdeen's approach to Local Access Roads will be to consider safety defects as those having a lower intervention level, or longer response time, than those on other parts of the network. Table 5, below, and Appendix A outline the detailed requirements for each defect type.

**Table 5 - Safety Defect Repair Times**

The following table outlines the timescales within which ACC aim to repair defects in each category.

Defect Category	Timescale for the repair of safety defects
Category 4	No action – review condition of defect at next inspection
Category 3	Repair within 28 working days
Category 2b	Repair or make safe within 7 working days
Category 2a	Repair or make safe within 2 working days
Category 1	Repair or make safe within 4 hours
	Other – pass to Technical and Traffic Management Team

**Table 6 – General Defect Matrix**

The table below demonstrates the possible response options depending on the road hierarchy and defect severity. Table 5, above, acts as a key for response times.

Hierarchy \ Impact	4b	4a	3b	3a	2
Negligible – Minor defects that are not considered a danger/hazard	Green	Green	Green	Green	Green
Low – some defects present but unlikely to create danger/hazard	Green	Green	Green	Green	Green
Noticeable – Significant defects that could be a danger/hazard	Yellow	Yellow	Yellow	Yellow	Yellow
High – Major defects that could result in a serious danger/hazard	Red	Red	Red	Red	Red
Non Safety Related Defects – Defects worthy of note/Potential future work programme	Black	Black	Black	Black	Black

Where two intervention levels are shown for a given impact category, the inspector has discretion to determine which level of response is appropriate. E.g., a high impact, major defect could have a 4 hour or 2 day response time.

## 9.0 RECORDING AND MONITORING OF INFORMATION

9.1 All information obtained from safety inspections, together with the nature of response, including nil returns, shall be recorded consistently. The data obtained shall be able to be reviewed independently and in conjunction with other survey information. It shall be stored electronically on a server which is backed-up on a daily basis. Service requests, complaints, reports or information from

users and other third parties shall also be recorded, along with the nature of response, including nil returns.

9.2 All inspection records automatically store the date and the name of the person conducting the inspection.

9.3 The network and its hierarchy are fluid and as a minimum the network shall be reviewed for changes with regard to hierarchy annually. Changes in safety inspection frequency shall subject to the approval by ACC's relevant committee and may be altered in response to the factors listed below:

- Traffic growth or reduction
- Accident rates
- Pedestrian/cyclist growth or reduction
- Sections of network being promoted as safer routes to school or for leisure use
- Recurring defects of the same nature being identified at a location where non-routine maintenance work is required to resolve the issue
- Non-routine maintenance work carried out to resolve recurring defects identified at a specific location

## **10.0 HEALTH, SAFETY AND TRAINING**

10.1 Highway safety inspections require concentration on the identification and recording of defects, but not at the expense of the safety of the inspector or road user.

10.2 Health and safety risk assessments and safe systems of work must cover all inspection activities identifying potential hazards to inspectors and road users and appropriate control measures. These risk assessments and safe systems of work must be reviewed regularly to consider newly identified risks, new or amended legislation, new or revised inspection methods and new or revised defect repair methods. Reference should be made to the Corporate Health and Safety Policy and the Roads Operations Risk Assessments.

10.3 All personnel involved in managing or carrying out road safety inspections must be fully familiar and compliant with the safe systems of work set out. Should a roads inspector feel that a safe system of work does not provide sufficient protection at a specific location on the network, he/she must stop work immediately and inform their Line Manager. It may then be necessary to amend or develop a new risk assessment and safe system of work for that particular location or inspection before the inspection is continued.

10.4 The following guidelines relate to the various ways in which a safety inspection may be carried out. These guidelines are not exhaustive and any unique situation which may arise associated with an inspection needs to be carefully appraised to ensure that appropriate systems of work are identified and implemented.

10.5 In general, road safety inspections are carried out from a slow-moving vehicle or on foot. General control measures are listed below but should not be considered exhaustive.

10.6 Inspections from a vehicle:

- The vehicle must be fitted with the appropriate beacons and reflective signing, and the equipment used where appropriate
- Appropriate personal protective equipment and clothing will be used at all times
- Should it be necessary for the vehicle to stop, the vehicle shall be parked off the live road wherever possible. If this cannot be achieved then there must be clear visibility in both directions and the roof mounted beacon must be switched on. Traffic must not be forced across any continuous white centre lining. If this cannot be achieved, advanced temporary traffic signing must be installed
- Planned road inspections shall not be carried out under conditions of adverse weather conditions e.g. snow, fog or heavy rain
- When possible, inspections shall not be carried out during morning and evening peak periods when pedestrian and vehicle movements are high.

10.7 Inspections on foot:

- Lone working procedures must be followed
- Appropriate personal protective equipment and clothing will be used at all times
- Inspections will be conducted from footways or verges where possible
- When conducting an inspection on foot in the carriageway or on a verge closer than one metre to the carriageway then adequate temporary signing and traffic management arrangements shall be provided
- Only special inspections of, for example, road markings and studs, shall be carried out during the hours of darkness/dusk
- When possible, inspections shall not be carried out during morning and evening peak periods when pedestrian and vehicle movements are high.

10.8 Appropriate experience and/or training is essential to ensure that personnel responsible for managing and carrying out highway inspections understand the reasons and importance of highway inspections. These reasons include public safety and the council's ability to defend liability claims.

10.9 The aim will be for Inspectors to be trained in accordance with the Scottish Credit and Qualifications Framework (Level 6) where reasonably practicable. New inspectors joining the organisation without this level of training will be given inhouse training provided by the safety inspection team (and assessed by the Technician) to achieve consistency in the identification of safety defects and the prioritisation of defect repairs in accordance with the guidance set out in this policy.

## **11.0 REFERENCE DOCUMENTS**

Roads (Scotland) Act 1984

Well-managed Highway Infrastructure, A Code of Practice, October 2016.

## Appendix A – Inspection Criteria

### A.1 CARRIAGEWAY - POTHOLE

A pothole is a sharp-edged depression anywhere in a carriageway where part or all of the surface layers have been removed including carriageway collapses (including surrounds to ironwork and missing cats' eyes). A pothole will be classed as a safety defect when the maximum depth, of the sharp edge, is greater than 50mm deep, or through the full depth of the bituminous surface. If at any point the depth exceeds 100mm the pothole will be deemed as a safety defect. At controlled pedestrian crossing or other defined crossing points, e.g. at junctions or dropped crossings, intervention level will be when the maximum depth, of the sharp edge, is greater than 20mm. Where purpose designed shared surfaces exist then the lower intervention limit will be applicable.



#### Intervention Categories

Edge Depth	<35 mm	35 – 50mm	> 50mm
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These measurements will be considered alongside the other assessment criteria when determining an appropriate level and timescale of response.



## A.2 CARRIAGEWAY - ABRUPT LEVEL DIFFERENCES

An abrupt level difference in the carriageway will be classed as a safety defect when it has a vertical displacement of greater than 50mm.



### Intervention Categories

Depth	<35 mm	35 – 50mm	> 50mm
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These measurements will be considered alongside the other assessment criteria when determining an appropriate level and timescale of response.

### A.3 CARRIAGEWAYS - CRACKS OR GAPS

Longitudinal and transverse cracking or gaps in the carriageway will be classed as safety defects when they are greater than 50mm deep and of sufficient width to present a hazard.



#### Intervention Categories

Width	<30 mm	30 – 40mm	> 40mm
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These measurements will be considered alongside the other assessment criteria when determining an appropriate level and timescale of response.

#### A.4 CARRIAGWAY - CROWNING, RUTTING, EDGE DETERIORATION, OVER-RIDING AND DEPRESSIONS

Crowning, rutting, edge deterioration, over-riding and depressions will be classed as safety defects when they are greater than 75mm over a short distance.



#### Intervention Categories

Depth	<75 mm	> 75mm
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These measurements will be considered alongside the other assessment criteria when determining an appropriate level and timescale of response.

## A.5 FOOTWAY - POTHOLES AND EDGE DETERIORATION

A pothole is a sharp-edged depression anywhere in a footway where part, or all, of the surface layers have been removed (including footway collapses and surrounds to ironwork). A pothole will be classed as a safety defect when it is greater than 20mm deep in a generally acceptable footway however, on certain footways, where the surface profile is undulating, this depth may increase.



### Intervention Categories

Depth	<20 mm	> 20mm
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These measurements will be considered alongside the other assessment criteria when determining an appropriate level and timescale of response.

## A.6 FOOTWAYS - ABRUPT LEVEL DIFFERENCES

An abrupt level difference in the footway will be classed as a safety defect when it has a vertical displacement greater than 20mm deep in a generally acceptable footway. Footways constructed from natural materials (e.g. granite) may be uneven and tolerance allowances should be made in these circumstances.



### Intervention Categories

Depth	<20 mm	> 20mm
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These measurements will be considered alongside the other assessment criteria when determining an appropriate level and timescale of response.

## A.7 FOOTWAYS - CRACKS OR GAPS

Longitudinal or transverse cracking or gaps in the footway will be classed as safety defects when they are greater than 20mm deep.



### Intervention Categories

Depth	<40 mm	> 40mm
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These measurements will be considered alongside the other assessment criteria when determining an appropriate level and timescale of response.

## A.8 FOOTWAYS - CROWNING, RUTTING AND DEPRESSIONS

Crowning, rutting and depressions will be classed as safety defects when they are greater than 25mm in depth over a distance of 600mm. All measurements will exclude tree pits around the base of trees.



### Intervention Categories

Depth/Height	<25 mm	25 – 100mm	> 100mm
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These measurements will be considered alongside the other assessment criteria when determining an appropriate level and timescale of response.

## A.9 FOOTWAYS - ROCKING OR UNSTABLE SLABS

A rocking or unstable slab will be classed as a safety defect when the vertical displacement is greater than 20mm in height or depth, at the extremities of their movement, in a generally satisfactory footway.



### Intervention Categories

Depth/Height	<20 mm	> 20mm
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These measurements will be considered alongside the other assessment criteria when determining an appropriate level and timescale of response.



## A.10 FOOTWAYS - KERBING DEFECTS

Individual cracked, chipped, rocking, uneven or missing kerbs will be classed as safety defects where they represent a tripping hazard, of a height greater than 20mm (but not close to or behind trees, street furniture and the like) or outwards in excess of 50mm.



### Intervention Categories

Depth/Height	<20 mm	> 20 mm	Protruding > 50 mm
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These measurements will be considered alongside the other assessment criteria when determining an appropriate level and timescale of response.

## **A.11 CYCLEWAYS**

Where cycleway forms part of the carriageway – carriageway criteria apply.

Where cycleway forms part of the footway or is off road – footway criteria apply.

## A.12 MANHOLE COVERS, GRATINGS AND FRAMES

A cover, grating or frame in the carriageway, footway, cycle route or verge that is significantly damaged, dislodged, missing or not seated correctly will be classed as a safety defect. Privately owned rainwater channels, cellar flaps, area lights, coal holes etc., that are significantly damaged, dislodged, missing or not seated correctly will be made safe and/or the property owner notified by letter.

Intervention levels and defect repair period for Manholes will be identified using the General Defect Matrix

A cover, grating or frame which is higher or lower (>50mm carriageways and >20mm footways) than the adjacent carriageway or footway will be classed as a safety defect. At controlled pedestrian crossing or other defined crossing points, investigatory levels will be as for the adjacent footway (>20mm).



### **A.13 EMBANKMENTS AND CUTTINGS**

Where a safety inspection identifies an embankment or cutting that is apparently unstable and represents an immediate or imminent hazard or there is a risk of short term failure, the area will be made safe within an appropriate timescale. These will then be referred to the Structures, Flooding and Coastal Protection Manager for further investigation and reactive inspections.



#### A.14 OVERGROWN VEGETATION

Hedges and trees that encroach within the envelope described below will be identified as a safety defect. Clearance envelope: 6m over carriageways and 2.4m over footways, cycle routes and verges. Vegetation on roads verges that significantly obscures forward visibility, visibility to signs or traffic lights, and visibility splays will be identified as a safety defect.

Vegetation obscuring street lighting will be reported to the Team Leader Technical - Street Lighting.

Intervention levels and defect repair period will be identified using the General Defect Matrix



#### **A15. SAFETY FENCES AND PEDESTRIAN BARRIERS**

Safety fencing, pedestrian guardrails or boundary fencing which is significantly damaged or protruding into the footway or carriageway will be classed as a safety defect.



Intervention levels and defect repair period will be identified using the General Defect Matrix.

Significant or major defects will generally be made safe by the end of the next working day and permanent repairs carried out as programmed work.

## A16. ROAD MARKINGS

White line markings on strategic and main distributor roads of high safety risk or with relevant accident record should be renewed when they are no longer adequate for their intended purpose.



Intervention levels and defect repair period for worn road markings will be identified using the General Defect Matrix.

Yellow parking restrictions will only be deemed a safety defect where parking would cause a danger to other road users.

### **A17. TRAFFIC SIGNALS, ILLUMINATED BOLLARDS, PELICAN CROSSING LAMPS AND STREET LIGHTING**

Damaged, missing or dirt obscuring any of the above that represents a significant or major hazard will be classed as a safety defect.

Intervention levels and defect repair period will be identified using the General Defect Matrix.

Generally, all defects will be made safe and reported as soon as possible to the Intelligent Traffic Systems Engineer or Team Leader Technical - Street Lighting.

### **A.18 GULLIES, DRAINS OR GRIPS**

Damaged gullies, drains or grips that represent a significant or major hazard will be classed as a safety defect.



Intervention levels and defect repair period will be identified using the General Defect Matrix.



### **A.19 ILLEGAL SIGNS, FLY POSTERS AND ADVERTISING BOARDS**

Illegal signs, fly posters or advertising boards that represent a significant or major hazard will be classed as a safety defect.

Intervention levels and defect repair period will be identified using the General Defect Matrix.

Generally, signs will be removed at the time of inspection if possible; otherwise the relevant information will be passed to the Roads Operations Manager for action.

### **A.20 UNSAFE STRUCTURES**

Highways inspections will only be required to identify significant or major defects that can be identified visually during the normal course of inspections e.g. damage to the superstructure or supports of over-bridges, parapets and expansion joints. Significant or major defects will be reported to the Structures, Flooding and Coastal Protection Manager immediately who will arrange for the appropriate action to be taken.



**A.21 DEBRIS, SPILLAGE OR CONTAMINATION, TREES WITH UNSTABLE BRANCHES**

Intervention levels and defect repair period will be identified using the General Defect Matrix.

**A.22 GRAFFITI**

Graffiti that represents a significant or major hazard will be classed as a safety defect, e.g. obscured traffic lights.

**Table 7 – Graffiti response matrix - this outlines how graffiti affecting various items of street furniture will be classed for response times (see tables 5 and 6 for further response detail and colour key).**

<b>GRAFFITI</b>					
	<b>2</b>	<b>3a</b>	<b>3b</b>	<b>4a</b>	<b>4b</b>
<b>Directional and other signs</b>					
<b>Warning signs</b>					
<b>Stop, give way and chevron signs</b>					
<b>A major hazard that could result in a serious danger/hazard or deemed offensive.</b>					

### A.23 TRAFFIC SIGNS AND BOLLARDS (Inc posts and plates)

Significant or major defects caused by damage to traffic signs will be classed as a safety defect. Stop, give way and chevron signs that are significantly damaged, missing or are not legible such that a sign is not effective or presenting a physical hazard to road users will be temporarily replaced by the end of the next working day and permanently repaired within 28 days. Other repairs will be carried out as programmed work.

**Table 8 – Traffic Signs and Bollards response matrix – this outlines how defects affecting various street furniture will be classed for response times (see tables 5 and 6 for response detail and colour key)**

TRAFFIC SIGNS AND BOLLARDS					
Type	2	3a	3b	4a	4b
Directional and other signs					
Warning signs					
Stop, give way and chevron signs					
Defect that is a major hazard that could result in a serious danger/hazard					

## A.24 ELECTRICAL

A traffic sign that has damaged or exposed electrical components will be classed as an emergency and should be reported to the Team Leader Technical - Street Lighting.



Intervention levels and defect repair period will be identified using the General Defect Matrix.

Generally, damaged or exposed electrical components will be made safe as an emergency and reported to the Street Lighting team to arrange for repair.

## A.25 BOLLARDS

A bollard that is significantly damaged or missing such that it presents a hazard to highway users will be classed as a safety defect.



Intervention levels and defect repair period for will be identified using the General Defect Matrix.

## A.26 STREET FURNITURE

Damage to street furniture that represents a significant or major hazard will be classed as a safety defect.



Intervention levels and defect repair period will be identified using the General Defect Matrix.

Damage to street furniture will be reported to the relevant owner. Litter bins are the responsibility of Environmental Services. Damage to bus stops should be reported to the Public Transport Unit for action.

## **A.27 FLOODING AND PONDING**

Any blocked gully which is giving (or could give) rise to flooding or severe ponding should be reported. Particular note should be taken of excessive standing water and water discharging onto and/or flowing across the carriageway where this is of a depth causing a potential danger.

Specific attention should be paid to water laying on or crossing the running surface of the carriageway or locations where pedestrians cross, e.g. dropped kerb crossing points.

Blocked gullies which are not at low points and are therefore not liable to give rise to ponding, but which require cleaning will be treated with a lower priority.

Instances of flooding which are temporarily covering, by water from any source, land not normally covered by water (not including a flood solely from a sewerage system) shall be recorded and passed to the Structures, Flooding and Coastal Engineering Manager by electronic means.

## **A.28 SKIPS, SCAFFOLDING, HOARDINGS AND OTHER ROAD OCCUPATIONS**

Instances of road occupation which are temporarily occupying a part of the road shall be recorded and passed to the Team Leader – Roadworks Coordination by electronic means. If there is an immediate danger caused by this occupation then the Traffic Engineering manager should be immediately.

Instances of traffic signal faults shall be recorded and passed to the Intelligent Traffic Systems Engineer by electronic means. If there is an immediate danger caused by this occupation then the Intelligent Traffic Systems Engineer should be informed immediately.