

# Northamptonshire Highways

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## **HIGHWAY SAFETY INSPECTION MANUAL 2019**

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## Distribution List

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## 1. Executive Summary

The Highways Safety Inspection Manual is produced and reviewed annually to provide localised guidance for the repair of maintenance defects on the Northamptonshire County Council road network. Before the Safety Inspection Manual is signed off and implemented it is agreed between KIERWSP and NCC representatives.

In October 2016, Well Managed Highway Infrastructure, a Code of Practice was introduced into the Local Government arena with a view to have the new guidance implemented by the 28<sup>th</sup> October 2018. The new document focuses on a risk based approach to all highway safety defects which are identified by the Highway Safety Inspectors and Community Stewards. The revised new standards were approved at Cabinet in January 2019.

This revised safety inspection manual is based around a series of defect matrices that have been compiled to suit the more common defects that may be identified on the NCC road network. These matrices were derived from the principles of risk assessment and determine the necessary investigatory response times based on the nature of the defect and hierarchy in which it lies. For defects that are not covered by these matrices a General defect Matrix has been produced that can be applied. These matrices are included in Appendix A.

The implementation programme for rolling out the Safety Inspection Manual, including future amendments, includes training for all KIERWSP staff who will use the investigatory levels contained herewith in their day-to-day jobs, or make decisions based on the risk (likelihood v severity) the defect poses to the highway users.

Quick reference cards have also been put together for ease of use on site that incorporate the application of the General Defect Matrix as well as specific variations of this matrix.

## 2. Introduction

This Highway Safety Inspection Manual sets out the requirements for carrying out highway safety inspections on the Northamptonshire County road network and contains guidance on Northamptonshire County Councils (NCC) policy and requirements for prioritising timely repairs to safety defects in accordance with the risk based approach methodology described within the new Code of Practice.

Personnel responsible for managing or carrying out highway safety inspections as well as other staff who are responsible for the identification and/or instruction of defect repairs will need to comply with the requirements set out in this manual.

This manual has been developed with consideration to and taking into account of:

- Northamptonshire County Councils Highway Network Management Plan, 2017.
- Well-Managed Highways, Code of Practice for Highway Maintenance Management, October 2016.
- Northamptonshire Local Transport Plan March 2012
- Traffic Signs Manual Chapter 8, Traffic Safety Measures and Signs for Road Works and Temporary Situations 2016

Highway Safety Inspections are one of NCC and KIERWSP's most important and high priority functions including:

1. The identification and recording of defects likely to create danger or serious inconvenience to users of the network or the wider community through:
  - a. Planned highway safety inspections at stated frequencies or
  - b. Reactive highway safety inspections following other reports of defects on the network e.g. reports of defects received through Street Doctor/ Fix My Street:

and

2. The repair of the identified defects ensures the safety of the network is maintained at an appropriate level for users of the network and the wider community.

### 3. Purpose of Highway Safety Inspections

The purpose of highways safety inspections is to identify defects likely to create danger or serious inconvenience to users of the network or the wider community.

Safety defects will include defects that require emergency attention (within 2 hours) or urgent attention (within 7 calendar days, Priority 2) as well as defects where longer periods of response are acceptable.

A robust and visible safety inspection regime provides important means by which NCC and KIERWSP can defend claims relating to alleged loss or damage caused by defects.

**Any item with a defect level which corresponds to, or is in excess of, the defect investigatory level adopted is to be assessed for likely risk.**

#### Risk Assessment Matrix

Probability Impact	Very low	Low	Medium	High
Negligible	1	2	3	4
Low	2	4	6	8
Moderate	3	6	9	12
High	4	8	12	16

#### *Defect Categories*

Response category	Colour
P1	2 HOURS
P2	7 DAYS
P3	28 DAYS
P4	26 WEEKS

For example the degree of risk from a pothole depends upon not merely its depth but also its surface area and location, which is why on-site judgement will always need to take account of particular circumstances.

Investigatory level is a term which has been deliberately used to infer that there is no expectation that repair action will necessarily be taken following the investigation. This is not an intervention level, rather the action to be taken will be determined by the dynamic risk assessment undertaken during the site inspection.



The investigatory level is set **as “anything that a reasonable person can see and would recognise as a defect in the highway asset when travelling via the mode being used by the highway inspector at the time of the inspection.”**

Through Section 58 of the Highways Act 1980 (England and Wales) NCC and KierWSP can repudiate a claim relating to alleged loss or damage caused by defects if it can prove that:

- It had in place adequate policies and procedures to maintain the highway and
- The policies and procedures were being followed, and
- There was no prior knowledge of a defect before the incident date.

## 4. Definitions

Unless otherwise stated, terms in this Highways Safety Inspection manual are as defined in the Well Managed Highway Infrastructure, Code of Practice for Highway Maintenance Management, October 2016 document.

### **Risk Based Approach**

Authorities should adopt a risk based approach and a risk management regime for all aspects of highway maintenance policy. This should include investment, setting levels of service and operations, including safety and condition inspections and determining repair priorities and replacement programmes. It should be undertaken against a clear and comprehensive understanding and assessment of the likelihood of asset failure and the consequences involved.

There are no prescriptive or minimum standards in this code. Adoption of a risk based approach, taking account of the advice in the Code, will enable authorities to establish and implement levels of service appropriate to their circumstances. We have embraced the use of Investigatory levels as opposed to intervention levels required by previous guidance along with categorising our network to enable the adoption of a hierarchy which reflects the whole highway network and its functionality.

The risk based approach to highway infrastructure maintenance will essentially be based on:-

- i. An understanding of the inventory, function, characteristics and use of the various assets comprising the highway network;
- ii. An understanding of the potential risks to users, stakeholders and the authority;
- iii. An appreciation of the likely significance of risks;
- iv. Establishment of hierarchies and levels of service with appropriate funding;
- v. Implementation of the agreed levels of service;
- vi. Regular evidence based reviews; and
- vii. Competency in development and implementation of the risk based approach.

***An inspection item for which the defect investigatory level is reached or exceeded is to be identified as a risk.***

***All risks identified through this process have to be evaluated in terms of their significance, which means assessing the likely impact should the risk occur and the probability of it actually happening.***

***The impact of a risk occurring should be quantified by assessing the extent of damage likely to be caused should the risk become an incident. As the risk is likely to increase with increasing speed, the amount of traffic and type of road are clearly important considerations in the assessment.***

***The probability is quantified by assessing the likelihood of users, passing by or over the defect, encountering the risk.***

***As the probability is likely to increase with increasing vehicular or pedestrian flow, the network hierarchy and defect location are, consequently, important considerations in the assessment.***

***It is important that hierarchies are dynamic and regularly reviewed to reflect changes in network characteristics and functionality so that maintenance strategy reflects the current situation rather than the use expected when the hierarchy was originally defined.***

## **New Roads and Street Works Act 1991**

### **Section 70-73: Defective Reinstatements**

The New Roads and Street Works Act 1991 (NRSWA) places duties with regard to reinstatements on undertakers however appropriate action shall be taken where defects are identified during highway inspections including:

- Informing the appropriate undertaker of the defect
- Undertaking emergency repairs if the defect corresponds to a category one defect
- Recharging the undertaker for works undertaken by KierWSP on behalf of NCC

### **Section 81: Defective Apparatus**

An undertaker is required to maintain apparatus on the network “to the reasonable satisfaction” of the Highways Authority however appropriate action will be taken where defects are identified during highway safety inspections.

The approach to the identification and repair of defects resulting from defective reinstatements or apparatus shall be as for highway defects. Priority 1 defects shall be corrected or made safe at the time of inspection if reasonably practicable. In this context, making safe may constitute displaying warning notices and/or coning or fencing off to protect the public from the defect. If it is not possible to correct or make safe the defect at the time of inspection the undertaker shall be notified of the defect by the KIERWSP Control Hub by telephone as soon as reasonably practicable after the defect is identified.

The KIERWSP Area Team member shall make arrangements for the telephone notification to be confirmed by fax or e-mail within 2 hours of the defect being identified (refer to Appendix C). Notifications shall identify the:

- Location of the defect
- Type of plant
- Nature of the defect (where actions have been taken to make the defect safe these must be included on the notification)
- Timescale for repair

Notifications will be copied to the NRSWA Team who are responsible for the coordination of repairs with undertakers. Notifications will be copied via e-mail.

If a Priority 1 safety defect is considered to represent a significant immediate or imminent hazard the defect shall be responded to as an emergency within a 2 hour response time. These works will be recharged to the undertaker. If the defect is considered to represent an emergency to be responded to in a 24 hour time frame the site will be revisited 22 hours following the defect identification, if no action has been taken by the utility KIERWSP will mobilise and make the site safe which may involve footpath, lane or road closures. Wherever possible the defective apparatus will not be touched. All details of works undertaken shall be passed to KIERWSP’s Third Party claims team who will follow-up recharging the works with NCC.

Undertakers shall be notified of Priority 2 defects, which require planned repairs in accordance with the guidance in section 8, by fax or e-mail within 24 hours for the defect being identified (refer to Appendix C). Notifications shall also be copied to the NRSWA Team who are responsible for the coordination of repairs with undertakers. Notifications will be copied via e-mail.

## Private Ownership

Third parties are also required to maintain their property “to the reasonable satisfaction” of NCC. This may include, but is not restricted to:

- Trees ( including these totally on private land but within falling distance of the highway)
- Hedges
- Rainwater channels
- Street Furniture
- Cellars
- Frontages adjoining the footway
- Objects in verges
- Temporary items under licence such as scaffolding/ hoardings etc

Anything within the highway or affecting the highway, owned by a third party must be maintained by that third party to the reasonable satisfaction of the highway authority and does not constitute a danger to the public using the highway.

Any defect representing a significant immediate or imminent hazard immediately adjacent to the public highway shall be responded to as an emergency within a 2 hour response time and then recharged through Northamptonshire Highways Regulations team.

Where a Priority-2 or non-urgent defect is identified immediately adjacent to the public highway a letter shall be sent to the occupier of the property requesting that the defect is rectified in a given timeframe.

If it is seen that the defect is not rectified in the timeframe Northamptonshire Highways Regulations Team shall be informed to follow up on the letter.

## 5. Frequency of Planned Highway Safety Inspections

The required frequency of planned highway safety inspections is defined in accordance with the review of the network hierarchy adopting the risk based approach principles set out within the Code of Practice.:

- Category within the network hierarchy
- Traffic use, characteristics and trends
- Incident and inspection history
- Characteristics of adjoining network element
- Wider policy or operational characteristics

Planned highway safety inspections will be carried out at the frequencies and within the tolerances shown in Tables 1 and 2 respectively. The due date for each inspection will be set at the beginning of the year. The tolerances shown in table 2 relate to the dates set at the beginning of the year.

Feature	Description	KIERWSP Frequency
Roads	Strategic Route	1 month
	Main Distributor	1 month
	Secondary Distributor	3 months
	Link Roads	6 months
	Local Access	12 months
	Minor Access Lane	24 months
Footways	Primary Walking – Busy urban shopping Areas	1 month
	Secondary Walking – Medium usage routes	3 months
	Link Footways – linking local access footways	6 months
	Local Access Footways – footways with low usage	12 months
	Minor footways – little used footways	24 months
Cycle Routes	Part of Carriageway	As for Roads
	Remote from Carriageway	6 months
	Cycle Trails	1 year

Table 1: Frequency of Planned Highway Safety Inspections

Frequency of Inspection*	1 Month	3 Months	6 Months	12 and 24 months
Tolerance	Plus or minus 7 days	2 weeks early or 1 week late	2 weeks early or 2 weeks late	2 weeks early or 2 weeks late
Maximum Period Between Inspections	38 Days	14 weeks	28 weeks	54 weeks

Table 2: Planned highway Safety Inspection Tolerance

(\* The date of the next subsequent inspection is taken as the date of the last inspection plus the frequency)

In exceptional circumstances it may not be practicable to carry out inspections within the tolerances shown in Table 2 e.g.

- Periods of severe weather for example prolonged periods of snow
- Exceptional periods of absence due to pandemics e.g. absence due to Bird Flu

In exceptional circumstances amendments to the frequency and tolerances of highway safety inspections will be reviewed by the Network Manager and agreed with NCC.

The completion of Highway Safety Inspections within the agreed programme is measured by KPI 28. This KPI will measure all inspections due to be completed within the period. Those that are programmed to be completed in a period but can be completed in the next period under the given tolerances will be measured in the next periods KPIs. KPI 28 requires a minimum of 97% of the highway safety inspections to be completed on time to achieve the minimum expected standard.

## 6. Methodology

The Code of Practice for Well Managed Highway Infrastructure:

***“Safety Inspections are designed to identify all 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 priority response. The degree of deficiency in the highway elements will be crucial in determining the nature and speed of response.”***

This manual provides general guidance on:

- The likely risks associated with the most common types of defect
- Response times for defect repairs

On site judgement however will always need to take into account the particular circumstances of individual defects.

Planned highway safety inspections will normally be either walked or driven. Walked inspections will be undertaken by a sole inspector following lone working procedures whilst driven inspections will be undertaken by one inspector plus a driver from a marked vehicle at the frequencies shown in Table 1. Consideration must be given to the safety of the inspection team and road users during the driven inspections.

In busy urban areas, particularly when inspecting footways, it may be difficult to obtain the necessary level of accuracy from vehicle based inspections. In these circumstances inspections will be undertaken on foot. Additional inspections may be necessary in response to user or community concern, as a result of incidents or extreme weather conditions, or in the light of monitoring information or where the asset condition has deteriorated significantly. These may be identified through the risk based approach.

Highway related issues can be raised by the Public through our public reporting system (currently PEM) which could include any of the examples listed below

### Emergency Response

Defects that require an emergency response are generally identified during:

- Planned highway safety inspections carried out by Highway Inspectors
- Reactive highway inspections carried out by any member of the Area Team both in and outside normal working hours.

Where a defect identified during a planned highway safety inspection is deemed to require an immediate response the Highway Inspector, where reasonably practicable and safe to do so, shall take steps to protect the public. Where necessary additional resources shall be mobilised to make safe the defect.

Where an emergency response is received via the public reporting system (currently PEM) which could include any of the following list below, which is not exhaustive, a KIERWSP Area Team member will be mobilised to inspect and where possible make the defect safe. The two hour response time will be measured from the time the KIERWSP area team member arrives on site and validates the status of the issue raised.

Examples of defects which shall be responded to as an emergency, i.e. within a response time of 2 hours can include:

- Major debris or spillage
- Critically unstable trees or structures
- Exposed live electrical wiring
- Carriageway or Structure collapse or comparable severe surface defect with a very high probability of loss of control

- Isolated standing water of a depth and location with a very high probability of loss of control
- Missing or seriously defective ironwork with a very high probability of injury to user
- Footway or cycleway collapse or comparable severe surface defect with very high probability of injury to user
- Damaged signs, lighting columns street furniture and traffic lights with very high probability of injury to user

### Priority 1 Defects

Where a Priority 1 defect is identified that requires a response within 24 hours, the KIERWSP Area Team member shall notify a nominated member of the respective Area Team by telephone with details of the nature and location of the defect. It will be arranged for a works team to attend site and permanently repair or make safe the defect within 24 hours of the defect being identified by the Highway Inspector or Area Team member. The 24 hour timeline for the defect to be responded to starts from the time that the defect is identified on site by the KIERWSP Area Team member.

Where it is only practicable to make safe the defect within 24 hours, permanent repairs where required, shall be undertaken through the Planned Maintenance Programme.

Priority 1 defect notifications shall be subsequently confirmed in writing by the Highway Inspector or Area Team member by creating a defect in the database. The form shall be completed and forwarded to the Area Technician or other nominated team member within the following time frames:

- By 3pm if the defect was identified during a routine highway safety inspection.
- On the day the defect was identified if the defect was identified by a member of the Area Team.
- In the morning of the following day if the defect was identified out of hours.

When a perceived Priority 1 response is received via the public reporting system (currently PEM) a KIERWSP Area Team member will be mobilised to inspect and where possible make the defect safe. The KIERWSP Area Team member will inspect the site within two hours. The prescribed response time will be measured from the time the KIERWSP Area Team member arrives on site.

### Priority 2 Defects

When a Priority 2 defect is identified the work will need to be completed within 7 calendar days the Highways Inspector or Area Team member will record the defect on the database. The completed work pack will be passed to a nominated member of the Area Team. The nominated member of the Area Team shall programme a suitable works team to attend site and repair the defect.

### Priority 3 Defects

When a Priority 3 defect is identified the work will need to be completed within 28 calendar days the Highways Inspector or Area Team member will record the defect on the database. The completed work pack will be passed to a nominated member of the Area Team. The nominated member of the Area Team shall programme a suitable works team to attend site and repair the defect.

### Priority 4 Defects

When a Priority 4 defect is identified the work will need to be completed within 26 calendar weeks the Highways Inspector or Area Team member will record the defect on the database. The completed work pack will be passed to a nominated member of the Area Team. The nominated member of the Area Team shall programme a suitable works team to attend site and repair the defect.

#### **P5 - Rights of Way works and Defects**

Due to the nature of some of these works we need to facilitate the fact that there is a birds nesting season when we cannot remove or cut hedges, there is a harvesting season which limits access to fields and there is a requirement to seek permission to access private land as well and for this reason on these types of works we have a 12 month completion time for this.

#### **P6 – Structures**

Although it is not part of this process the inspection and subsequent repair timescales for structures can be far greater than immediate highway safety issues so we have included a P6 Category within our works ordering system and include it within this section of the document for information only.

Refer to Section 4 for procedures for defective statutory undertakers' reinstatements or apparatus.



## 7. Health and Safety

### Health and Safety Requirements

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

### Risk Assessment and Safe Systems of Work

Risk assessments have been undertaken that cover all activities undertaken during the highways safety inspection process through identifying potential hazards to inspectors and road users and appropriate control measures.

Risk assessments will be regularly reviewed and amended to ensure they are up to date with:

- Recently identified risks
- New or amended legislation
- New or revised inspection methods
- New or revised defect repair methods
- New or revised best-practice

Health and Safety Documentation is contained on both the KIERWSP Intranet and the KIERWSP Integrated Management System. All personnel involved in managing or carrying out highway safety inspections must be fully familiar with all risk assessments relevant to the activities they undertake.

Should a Highway Inspector or any other member of staff feel that a risk assessment does not provide sufficient protection when undertaking a specific activity or working in a specific location they must stop work and inform their line manager. It may be necessary to amend existing risk assessments or create new risk assessments to cover the situation.

The following notes form guidelines for the various methods used for undertaking highway safety inspections. These are not exhaustive and any unique or individual situations that arise through highways safety inspections will need to be assessed to ensure all risks are identified and eliminated where possible.

Reference should always be made to the procedures and risk assessments contained in the KIERWSP Integrated Management System.

Highway safety inspections are carried out either from a slow moving vehicle or on foot. The use of bicycles or other means of undertaking inspections have not been introduced to-date but may be included in revisions if they are introduced.

### Inspections from a Moving Vehicle

- Driven inspections will always be undertaken by two or more people and the Highway inspector shall not drive the vehicle whilst undertaking the inspection. The driver shall ensure the safety of the vehicle occupants and other road users.
- KIERWSP pool vehicles marked-up to Chapter 8 regulations shall be used for driven inspections.
- High visibility jackets shall be worn at all times.

- Should it become necessary to stop the vehicle, the vehicle shall be parked off the live highway. If the vehicle must stop on the carriageway then there must be clear visibility in both directions and the roof mounted beacon must be switched on. Traffic must not be forced to cross a continuous white centre line. If this cannot be achieved then advanced temporary traffic signing must be installed.
- When conducting an inspection on foot in the carriageway or on a verge closer than 1.2 metres to the carriageway the inspector is to complete a site specific risk assessment check list before proceeding.
- Highway safety inspections will not be carried out under poor visibility conditions such as snow, fog or heavy rain.
- Only specialist inspections shall be carried out through periods of darkness/dusk such as road markings and studs or street lighting.
- Whenever possible highway inspections shall not be undertaken during morning and evening rush hours when pedestrian and vehicle volumes are high.

#### **Inspections on Foot**

- Lone working procedures are to be adhered to.
- Personal protective equipment is to be worn at all times. When it is perceived that PPE will attract adverse attention a separate risk assessment will be carried out to cover the particular situation.
- Inspections will be undertaken from footways and verges whenever possible.
- When conducting an inspection on foot in the carriageway or on a verge closer than 1.2 metres to the carriageway the inspector is to complete a site specific risk assessment check list before proceeding.
- Highway safety inspections will not be carried out under poor visibility conditions such as snow, fog or heavy rain.
- Only specialist inspections shall be carried out through periods of darkness/dusk such as road markings and studs.
- Whenever possible highway inspections shall not be undertaken during morning and evening rush hours when pedestrian and vehicle volumes are high.

## 8. Training

On-going training is needed to ensure personnel responsible for managing or carrying out highway safety inspections:

- Appreciate why highway safety inspections are carried out and the importance associated with them.
- Understand what constitutes a safety defect.
- Understand insurance claim procedures and the importance of maintaining accurate records of inspections and safety defect repairs.
- Are able to evaluate and record safety defect information in a consistent manner.
- Are able to identify priorities for safety defect repair work in a consistent manner and in accordance with the guidance herewith.
- Are aware of all health and safety issues and risk assessments associate with undertaking highways safety inspections.

On-going in house training will be provided to staff involved in the highways safety inspection process.

To accommodate the implementation of Well Managed Highways a Training Tool Box talk, which included a power point presentation and a questionnaire for all Highway Inspectors and Wardens was undertaken in February 2019 in advance of the commencement of the new standard on March 1<sup>st</sup> 2019.

Additional external training can be requested by staff in accordance with the procedures set out in the KIERWSP Integrated Management System.

## 9. Guidance on Investigatory Levels and Timescales for the Repair of Safety Defects

This section of the Highways Safety inspection Manual provides guidance on investigatory levels and timescales for the repair of safety defects.

All defects identified on the network during the course of planned or reactive inspections shall be assessed in accordance with the risk assessment principals set out in Well Managed Highway Infrastructure, Code of Practice for Highway Maintenance, October 2016.

### General Guidance

#### Emergency Response (E - 2 Hour Response Time)

If a safety defect is considered to represent a significant imminent or immediate danger the defect shall be responded to as an emergency within a 2 hour response time.

Examples of defects which shall be responded to as an emergency, i.e. within a response time of 2 hours can include:

- Major debris or spillage
- Critically unstable trees or structures
- Exposed live electrical wiring
- Carriageway or Structures collapse or comparable severe surface defect with a very high probability of loss of control
- Isolated standing water of a depth and location with a very high probability of loss of control
- Missing or seriously defective ironwork with a very high probability of injury to user
- Footway or cycleway collapse or comparable severe surface defect with very high probability of injury to user
- Damaged signs, lighting columns street furniture and traffic lights with very high probability of injury to user

If a Highway Inspector or member of an Area Team is unsure if a defect identified on the network during the course of an inspection requires an emergency response they should immediately contact their Line Manager for advice.

#### Other Defects

Other defects shall be assessed using the defect matrices shown in Appendix A.

Separate matrices are provided for the types of safety defect that are most frequently identified on the network.

Defects which are defined or which exceed the investigatory levels shown in Appendix A shall be recorded as a safety defect and repaired within the stated timescales. Where a defect is not covered by one of the separate defect matrices safety defects and repair timescales shall be identified in accordance with the "General Defect Matrix" shown in Appendix A.

The matrices indicate six different levels of response, these are defined as follows:

**1. "No Action"**

Defects do not meet investigatory levels and therefore No Action required

**2. "Pre-Emptive Repairs"**

These are defects that are outside the investigatory levels for repairs to be undertaken.

However if these defects are near to other similar defects that are inside investigatory levels for response and the defect is expected to have deteriorated to a point that it would need to be repaired at the time of the next inspection then it should be repaired at this time.

**3. P4 – 26 Calendar Week Repairs – Low Risk**

These are defects which fall within investigatory levels however they are deemed to carry a low level of risk, hence being given longer following the risk based assessment undertaken by the Highway Safety Inspectors, for a repair to be undertaken.

**4. P3 – 28 Calendar Days – Low to Medium Risk**

These are defects which are deemed to carry more risk than P4 defects and hence require a speedier repair following the risk based assessment undertaken by the Highway Safety Inspectors.

**5. P2 – 7 Calendar Days – Medium to High Risk**

These are defects that, following the risk based assessment undertaken by the Highway Safety Inspectors, require a repair within the 7 calendar day timeframe.

**6. P1 – 24 Hours – High Risk**

These are defects which pose a high risk and hence require a quicker response to repair following the risk based assessment undertaken by the Highway Safety Inspectors. If in the judgement of the inspector the defect is considered to represent a significant or imminent hazard, repair or make safe within 24 hours. If the defect can only be made safe within 24 hours carry out permanent repairs as a P4 Repair.

## Appendix A – Defect Matrices

### Contents

#### Safety Defect Repair Timescales

#### General Defect Matrix

##### 1. Carriageways

- 1.1 Potholes
- 1.2 Rutting and Depressions
- 1.3 Cracking
- 1.4 Vertical Displacement in Rigid Carriageways
- 1.5 Channel Kerbs
- 1.6 Kerb Displacement (No Adjacent Footway)
- 1.7 Edge deterioration
- 1.8 Skidding Resistance

##### 2 Footways

- 2.1 Slabs and Blocks
- 2.2 Potholes and Depressions
- 2.3 Cracking
- 2.4 Trips and Slips
- 2.5 Displacement of Kerbs
- 2.6 Tree Roots
- 2.7 Verge Encroachment
- 2.8 Paved Verges and Cobbled Areas
- 2.9 Skidding Resistance

##### 3 Cycle Routes

- 3.1 Cycle Routes

##### 4 Highway Drainage Systems

- 4.1 Covers, Gratings and Frames and Privately Owned Rainwater Channels
- 4.2 High or Low Covers, Gratings or Frames
- 4.3 Rocking Covers, Gratings and Frames
- 4.4 Polished Drainage Covers

##### 5 Embankments and Cuttings

- 5.1 Embankments and Cuttings

##### 6 Landscaped Areas and Trees

- 6.1 Verge Rutting
- 6.2 Noxious Weeds
  - 6.2.1 Common Ragwort
  - 6.2.2 Broad-leaved Dock
  - 6.2.3 Curled Dock
  - 6.2.4 Creeping Thistle
  - 6.2.5 Spear Thistle

- 6.2.6 Japanese Knotweed
- 6.2.7 Giant Hogweed
- 6.3 Overgrown Vegetation

## **7 Fences**

- 7.1 Safety Fencing
- 7.2 Pedestrian Guardrails
- 7.3 Boundary Fencing

## **8 Traffic Signs and Bollards**

- 8.1 Traffic Signs (Posts and Plates)
- 8.2 Traffic Signs (Electrical Components)
- 8.3 Bollards

## **9 Road Markings and Studs**

- 9.1 Road Markings
- 9.2 Road Studs

## **10 Structures**

- 10.1 Structures

## **11 Miscellaneous**

- 11.1 Street Furniture
- 11.2 Street Name Plates
- 11.3 Graffiti
- 11.4 Fly Posting and Advertising Boards
- 11.5 Traffic Signal Installations
- 11.6 Risk Based Approach- Assessment Table
- 11.7 Street Lighting

Key	Timescale for Defect Repair
No action / Pre- emptive Repair	Defects outside investigatory levels requiring action to be taken. Defects identified that are outside investigatory levels but are located in a proximity to similar defects within investigatory levels should be considered to be undertaken at the same time as the others.
P4 26 Calendar weeks	<b>Carriageways and Footways.</b>  <b>All Other Defects:</b> Defects within investigatory levels to be included in a programme of works to be repaired within agreed timeframes.
P3 – 28 Calendar Days	<b>Carriageway and Footway:</b> A defect that in the judgement of the inspector the defect is considered to represent a hazard to be repaired within 28 Calendar days.  <b>All other Categories:</b> A defect that in the judgement of the inspector should be repaired within 28 days, or if in the judgement of the inspector the defect is considered to represent a significant or imminent hazard repair or make safe within 24 hours. If the defect can only be made safe within 24 hours carry out permanent repairs as part of the planned works programme.
P2- 7 Calendar Days	<b>Carriageway and Footway:</b> A defect that in the judgement of the inspector is considered to represent a hazard to be repaired within 7 Calendar days.  <b>All other Categories:</b> A defect that in the judgement of the inspector should be repaired within 7 days, or if in the judgement of the inspector the defect is considered to represent a significant or imminent hazard repair or make safe within 24 hours. If the defect can only be made safe within 24 hours carry out permanent repairs as part of the planned works programme.
P1 – 24 Hours	<b>Carriageway and Footway:</b> If a P1 safety defect is identified it is to be repaired within 24 hours.  <b>All other Categories:</b> Defects that are to be repaired or made safe within 24 hours. Defects that are only made safe are to have a permanent repair included in the planned works programme.



## 1. Carriageway

### 1.1 DEFECT RESPONSE MATRIX - POT HOLES

	SEVERITY						
	SEVERE				MODERATE		NEGLIGABLE
ROAD TYPE	TYPE 2	3A	3B	3B	4A	4B	5
	Strategic Route	Main Distributor	Secondary Distributor - upper	Secondary Distributor - lower	Link Road	Local Access Road	Minor Access Lane
Inspection Frequency	MONTHLY => 300mm dia	MONTHLY => 300mm dia	3 MONTHLY => 300mm dia	3 MONTHLY => 300mm dia	6 MONTHLY => 300mm dia	12 MONTHLY => 300mm dia	24 MONTHLY => 300mm dia
VERY LIKELY > 100mm	P1	P1	P1	P1	P2	P2	P3
LIKELY 75 to < 100mm	P 2	P 2	P 2	P 2	P 3	P 3	P 4
POSSIBLE 50 to < 75mm	P 2	P 2	P 3	P 3	P 4	P 4	P 4
UNLIKELY 40 to < 50mm	P 4	P 4	P 4	P 4	Pre-emptive	Pre-emptive	No Action
RARE < 40mm	No Action	No Action	No Action	No Action	No Action	No Action	No Action

#### Notes:

Pre-emptive repairs - where other priority works are being carried out in the same traffic management.

No Action - unless dynamic risk assessment on site advises other priority category

## 1.0 Carriageways

### 1.2 DEFECT RESPONSE MATRIX - Rutting and Depressions

ROAD TYPE	SEVERE			MODERATE		NEGLIGABLE	
	Strategic Route	Main Distributor	Secondary Distributor - upper	Secondary Distributor - lower	Link Road	Local Access Road	Minor Access Lane
Inspection Frequency	<b>MONTHLY</b> = > 300mm dia	<b>MONTHLY</b> = > 300mm dia	<b>3 MONTHLY</b> = > 300mm dia	<b>3 MONTHLY</b> = > 300mm dia	<b>6 MONTHLY</b> = > 300mm dia	<b>12 MONTHLY</b> = > 300mm dia	<b>24 MONTHLY</b> = > 300mm dia
VERY LIKELY > 100mm	P1	P1	P1	P1	P2	P2	P3
LIKELY 75 to < 100mm	P 2	P 2	P 2	P 2	P 3	P 3	P 4
POSSIBLE 50 to < 75mm	P 2	P 2	P 3	P 3	P 4	P 4	P 4
UNLIKELY 40 to < 50mm	P 4	P 4	P 4	P 4	Pre-emptive	Pre-emptive	No Action
RARE<40MM	No Action	No Action	No Action	No Action	No Action	No Action	No Action

#### Notes:

Rutting will be identified as a safety defect when it is:-

- a) 40mm deep or greater on a Strategic Route, Main Distributor and Secondary Distributor; B) 50mm deep or greater on Local Access Roads;
- c) 100mm deep or greater on a Minor Access Lane.

A depression will be identified as a safety defect when it exceeds the above depths over a distance NOT exceeding 1200mm in length when measured in the direction of travel but it needs to be 300mm in width.

For depressions outside of these dimensions use the Safety Defect Repair Timescales.

At controlled pedestrian crossings or other defined crossing points i.e at junctions where dropped crossings are provided investigatory levels will be as for adjacent footways.

Where rutting and depressions are identified within third party reinstatements follow the guidelines in Section 4 Definitions of this manual. Ensure NRSWA Team and KIERWSP Third Party Claims Teams are informed to allow costs to be recovered.

## 1.0 Carriageways

### 1.3 DEFECT RESPONSE MATRIX - Cracking

ROAD TYPE	SEVERITY						
	SEVERE TYPE 2	3A	3B	MODERATE 3B	4A	4B	NEGLIGIBLE 5
	Strategic Route	Main Distributor	Secondary Distributor - upper	Secondary Distributor - lower	Link Road	Local Access Road	Minor Access Lane
Inspection Frequency	<b>MONTHLY</b> = > 300mm dia	<b>MONTHLY</b> = > 300mm dia	<b>3 MONTHLY</b> = > 300mm dia	<b>3 MONTHLY</b> = > 300mm dia	<b>6 MONTHLY</b> = > 300mm dia	<b>12 MONTHLY</b> = > 300mm dia	<b>24 MONTHLY</b> = > 300mm dia
VERY LIKELY > 100mm	P1	P1	P1	P1	P2	P2	P3
LIKELY 75 to < 100mm	P2	P2	P2	P2	P3	P3	P4
POSSIBLE 50 to < 75mm	P2	P2	P3	P3	P4	P4	P4
UNLIKELY 40 to < 50mm	P4	P4	P4	P4	Pre-emptive	Pre-emptive	No Action
RARE < 40mm	No Action	No Action	No Action	No Action	No Action	No Action	No Action

#### Notes:

Longitudinal and transverse cracking in a carriageway will be identified as a safety defect when it is greater than or equal to 40mm wide and greater than 300mm in continuous length.

At controlled pedestrian crossings or other defined crossing points i.e at junctions where dropped crossings are provided investigatory levels will be as for adjacent footways.

Where rutting and depressions are identified within third party reinstatements the guidelines in Section 4 Definitions, of this manual are to be followed ensuring our NRSWA and KIERWSP Third Party Claims Teams are informed to allow costs to be recovered.

## 1.0 Carriageways

### 1.4 Vertical Displacement in Rigid Carriageways

ROAD TYPE	SEVERITY						
	SEVERE		MODERATE			NEGLIGABLE	
	TYPE 2	3A	3B	3B	4A	4B	5
	Strategic Route	Main Distributor	Secondary Distributor - upper	Secondary Distributor - lower	Link Road	Local Access Road	Minor Access Lane
Inspection Frequency	MONTHLY => 300mm dia	MONTHLY => 300mm dia	3 MONTHLY => 300mm dia	3 MONTHLY => 300mm dia	6 MONTHLY => 300mm dia	12 MONTHLY => 300mm dia	24 MONTHLY => 300mm dia
VERY LIKELY > 100mm	P1	P1	P1	P1	P2	P2	P3
LIKELY 75 to < 100mm	P 2	P 2	P 2	P 2	P 3	P 3	P 4
POSSIBLE 50 to < 75mm	P 2	P 2	P 3	P 3	P 4	P 4	P 4
UNLIKELY 40 to < 50mm	P 4	P 4	P 4	P 4	Pre-emptive	Pre-emptive	No Action
RARE < 40mm	No Action	No Action	No Action	No Action	No Action	No Action	No Action

#### Notes:

A vertical displacement in a rigid carriageway will be identified as a safety defect when it is greater than 300mm in length and;-

- a) 40mm in height or greater on a Strategic Route, Main Distributor and Secondary Distributor
- b) 50mm in height or greater on Local Access Roads and link roads
- c) 100mm in height or greater on a Minor Access Lane

At controlled pedestrian crossings or other defined crossing points i.e at junctions where dropped crossings are provided investigatory levels will be as for adjacent footways.

Where rutting and depressions are identified within third party reinstatements follow the guidelines in Section 4 Definitions, of this manual.

Ensure NRSWA Team and KIERWSP Third Party Claims Teams are informed to allow costs to be recovered.

## 1.0 Carriageways

### 1.5 DEFECT RESPONSE MATRIX - Channel Kerbs

ROAD TYPE	SEVERITY						
	SEVERE			MODERATE			NEGLIGABLE
	Strategic Route	Main Distributor	Secondary Distributor - upper	Secondary Distributor - lower	Link Road	Local Access Road	Minor Access Lane
Inspection Frequency	MONTHLY	MONTHLY	3 MONTHLY	3 MONTHLY	6 MONTHLY	12 MONTHLY	24 MONTHLY
VERY LIKELY > 100mm	P1	P1	P1	P1	P2	P2	P3
LIKELY 75 to < 100mm	P 2	P 2	P 2	P 2	P 3	P 3	P 4
POSSIBLE 50 to < 75mm	P 2	P 2	P 3	P 3	P 4	P 4	P 4
UNLIKELY 40 to < 50mm	P 4	P 4	P 4	P 4	Pre-emptive	Pre-emptive	No Action
RARE < 40mm	No Action	No Action	No Action	No Action	No Action	No Action	No Action

#### Notes:

A vertical displacement in a channel kerb will be identified as a safety defect when it is:-

- 40mm in height or greater on a Strategic Route, Main Distributor and Secondary Distributor
- 50mm in height or greater on Local Access Roads and link roads
- 100mm deep or greater on a Minor Access Lane

At controlled pedestrian crossings or other defined crossing points i.e at junctions where dropped crossings are provided investigatory levels will be as for adjacent footways.

Where rutting and depressions are identified within third party reinstatements follow the guidelines in Section 4 Definitions, of this manual.

Ensure NRSWA Team and KIERWSP Third Party Claims Teams are informed to allow costs to be recovered.

## 1.0 Carriageways

### 1.6 Kerb Displacement (where no adjacent footway is present)

ROAD TYPE	SEVERITY						
	SEVERE TYPE 2	3A	3B	MODERATE 3B	4A	4B	NEGLIGIBLE 5
	Strategic Route	Main Distributor	Secondary Distributor - upper	Secondary Distributor - lower	Link Road	Local Access Road	Minor Access Lane
Inspection Frequency	MONTHLY	MONTHLY	3 MONTHLY	3 MONTHLY	6 MONTHLY	12 MONTHLY	24 MONTHLY
VERY LIKELY > 100mm	P1	P1	P1	P1	P2	P2	P3
LIKELY 75 to < 100mm	P2	P2	P2	P2	P3	P3	P4
POSSIBLE 50 to < 75mm	P2	P2	P3	P3	P4	P4	P4
UNLIKELY 40 to < 50mm	P4	P4	P4	P4	Pre-emptive	Pre-emptive	No Action
RARE < 40mm	No Action	No Action	No Action	No Action	No Action	No Action	No Action

#### Notes:

A kerb adjacent to a carriageway which does not have an adjacent footway will be inspected at the same time as the carriageway.

A vertical step between the kerbs will be identified as a safety defect when it meets the above.

At controlled pedestrian crossings or other defined crossing points i.e at junctions where dropped crossings are provided investigatory levels will be as for adjacent footways.

Where kerb displacement caused by third parties are identified follow the guidance Section 4 Definitions, of this manual.

Ensure Nrswa Team and KIERWSP Third Party Claims Teams are informed to allow costs to be recovered.

## 1.0 Carriageways

### 1.7 Edge Deterioration

	SEVERITY						
	SEVERE				MODERATE		NEGLIGABLE
ROAD TYPE	TYPE 2	3A	3B	3B	4A	4B	5
	Strategic Route	Main Distributor	Secondary Distributor - upper	Secondary Distributor - lower	Link Road	Local Access Road	Minor Access Lane
Inspection Frequency	MONTHLY => 300mm dia	MONTHLY => 300mm dia	3 MONTHLY => 300mm dia	3 MONTHLY => 300mm dia	6 MONTHLY => 300mm dia	12 MONTHLY => 300mm dia	24 MONTHLY => 300mm dia
VERY LIKELY > 100mm	P1	P1	P1	P1	P2	P2	P3
LIKELY 75 to < 100mm	P 2	P 2	P 2	P 2	P 3	P 3	P 4
POSSIBLE 50 to < 75mm	P 2	P 2	P 3	P 3	P 4	P 4	P 4
UNLIKELY 40 to < 50mm	P 4	P 4	P 4	P 4	Pre-emptive	Pre-emptive	No Action
RARE < 40mm	No Action	No Action	No Action	No Action	No Action	No Action	No Action

#### Notes:

Where edge deterioration is caused by the edge of the surfaced carriageway breaking up the investigatory level for safety defects.

will be as for pot holes

At controlled pedestrian crossings or other defined crossing points i.e at junctions where dropped crossings are provided investigatory levels will be as for adjacent footways.

Where kerb displacement caused by third parties are identified follow the guidance Section 4 Definitions, of this manual

Ensure the NRSWA Team and KIERWSP Third Party Claims Teams are informed to allow costs to be recovered.

## 1. Carriageways

### Skidding Resistance

Carriageway Hierarchy Impact	Local Access Road (Annual)	Link Road (6 Monthly)	Secondary Distributor (3 Monthly)	Strategic Route Main Distributor (Monthly)
<b>Negligible</b> Minor defects that are not considered a danger/hazard	No action for standalone defects.			
<b>Low</b> Some defects present, but unlikely to create a danger/hazard	No action for standalone defects. Include in planned works programme with other defects within the immediate vicinity.			
<b>Noticeable</b> Significant defects that could be a danger/hazard	P3 – 28 DAYS		P2 - 7 days	
<b>High</b> Major defects that could result in a serious danger/hazard	P2 – 7 days		P1 - 24 hours	

#### Description:

Safety inspections will only be required to identify significant or major defects that can be identified visually during the normal course of the safety inspection, e.g. Highly polished surface courses or excessive grit, stone, oil, other debris within the carriageway or excessive binder.

Significant or major defects caused by polishing of surface courses that may cause danger/hazard are to be referred to the Area Manager to investigate and action if found necessary.

Excessive grit, stone, oil or other debris will be removed within the timescales shown in the matrix above.



	SEVERITY				
	SEVERE Busy Urban shopping and business areas and main pedestrian routes	HIGH Medium usage routes through local areas feeding into primary routes, local shopping centres etc	MEDIUM Linking local access footways through urban areas and busy rural footways local shopping area	LOW Footways associated with low usage, short estate roads to the main routes, culs -de-sacs , link footpaths including service strips	NEGLIGABLE Little used rural footways serving very limited numbers of properties
	Primary Walking	Secondary Walking	Link Footways	Local Access Footways	Minor Footways
Inspection Frequency	MONTHLY	3 MONTHLY	6 MONTHLY	12 MONTHLY	24 MONTHLY
<i>Horizontal measure</i>					
VERY Likely > 40mm	P 1	P 1	P 1	P 2	P 3
LIKELY 30 to < 40mm	P 1	P 1	P 2	P 3	P 3
POSSIBLE 20 to < 30mm	P2	P 2	P 3	P 3	P 4
UNLIKELY 10 to < 20mm	Pre-emptive	Pre-emptive	Pre-emptive	No Action	No Action
RARE < 10mm	No Action	No Action	No Action	No Action	No Action

#### Notes:

An area of footway where the paved surface is vertically displaced by 20mm or more in height or depth will be identified as a defect which meets investigatory levels. The definition includes rocking slabs and blocks where the maximum vertical displacement between two slabs is 20mm or more in height or depth. Rocking, unbroken slabs should be permanently repaired on the first visit. Only dangerous full or broken slabs should be removed and replaced by asphalt. When a slab is replaced with asphalt a subsequent order where practicable is to be raised for a permanent repair within the planned programme.

At controlled pedestrian crossings or other defined crossing points i.e at junctions where dropped crossings are provided investigatory levels will be as for adjacent footways. Where rutting and depressions are identified within third party reinstatements the guidelines in Section 4 Definitions, of this manual are to be followed ensuring our NRSWA and KIERWSP Third Party Claims Teams are informed to allow costs to be recovered.

**Pre-emptive repairs**-where other priority works are being carried out in the same traffic management

**No Action** - unless dynamic risk assessment on site advises other priority category

2.0 Footways  
2.2 Pot Holes  
and  
Depressions

	SEVERITY				
	SEVERE	HIGH	MEDIUM	LOW	NEGLIGABLE
	Busy Urban shopping and business areas and main pedestrian routes	Medium usage routes through local areas feeding into primary routes, local shopping centres etc	Linking local access footways through urban areas and busy rural footways local shopping area	Footways associated with low usage, short estate roads to the main routes, culs -de-sacs , link footpaths including service strips	Little used rural footways serving very limited numbers of properties
	Primary Walking	Secondary Walking	Link Footways	Local Access Footways	Minor Footways
Inspection Frequency	MONTHLY	3 MONTHLY	6 MONTHLY	12 MONTHLY	24 MONTHLY
Horizontal measure	= > 75mm dia	= > 75mm dia	= > 75mm dia	= > 75mm dia	= > 75mm dia
VERY LIKELY	P 1			P 2	P 3
Very LIKLEY > 40mm	P 1			P 2	P 3
LIKELY 30 to < 40mm	P 1			P 2	P 3
POSSIBLE 20 to < 30mm	P 2			P 3	P 4
UNLIKELY 10 to < 20mm	Pre-emptive			No Action	No Action
RARE < 10mm	No Action			No Action	No Action

**Notes:**

A pot hole 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 iron work. A pot hole will be identified as a defect which meets investigatory levels when it is 20mm or more in depth and has a maximum horizontal dimension greater than 75mm.

A depression will be identified as a defect which meets investigatory levels when it is 40mm or more in depth and has a maximum horizontal measurement of less than 300mm.

At controlled pedestrian crossings or other defined crossing points i.e at junctions where dropped crossings are provided investigatory levels will be as for adjacent footways.

Where rutting and depressions are identified within third party reinstatements the guidelines in Section 4 Definitions, of this manual are to be followed ensuring our

NRSWA and KIERWSP Third Party Claims Teams are informed to allow costs to be recovered.

Pre-emptive repairs - where other priority works are being carried out in the same traffic management. No Action - unless dynamic risk assessment on site advises other priority.

## 2.0 Footways

### 2.3 Cracking

	SEVERITY				
	SEVERE	HIGH	MEDIUM	LOW	NEGLIGABLE
	Busy Urban shopping and business areas and main pedestrian routes	Medium usage routes through local areas feeding into primary routes, local shopping centres etc	Linking local access footways through urban areas and busy rural footways local shopping area	Footways associated with low usage, short estate roads to the main routes, culs -de-sacs , link footpaths including service strips	Little used rural footways serving very limited numbers of properties
	Primary Walking	Secondary Walking	Link Footways	Local Access Footways	Minor Footways
<b>Inspection Frequency</b>	<b>MONTHLY</b>	<b>3 MONTHLY</b>	<b>6 MONTHLY</b>	<b>12 MONTHLY</b>	<b>24 MONTHLY</b>
<i>Horizontal measure</i>	= > 75mm dia	= > 75mm dia	= > 75mm dia	= > 75mm dia	= > 75mm dia
Very LIKELY > 40mm	P 1	P 1	P 1	P 2	P 3
LIKELY 30 to < 40mm	P 1	P 1	P 2	P 3	P 3
POSSIBLE 20 to < 30mm	P 2	P 2	P 3	P 3	P 4
UNLIKELY 10 to < 20mm	Pre-emptive	Pre-emptive	Pre-emptive	No Action	No Action
RARE < 10mm	No Action	No Action	No Action	No Action	No Action

#### Notes:

Longitudinal and transverse cracking anywhere in a footway will be identified as a defect that meets our investigatory levels when 300mm in continuous length and 20mm or more in depth.

Where cracking caused by third parties is identified the guidelines in Section 4 Definitions, of this manual are to be followed ensuring our NRSWA and KIERWSP Third Party Claims Teams are informed to allow costs to be recovered.

Pre-emptive repairs - where other priority works are being carried out in the same traffic management

No Action - unless dynamic risk assessment on site advises other priority category

## 2.0 Footways

### 2.4 Trips behind Kerbs

	SEVERITY				
	SEVERE	HIGH	MEDIUM	LOW	NEGLIGABLE
	Busy Urban shopping and business areas and main pedestrian routes	Medium usage routes through local areas feeding into primary routes, local shopping centres etc	Linking local access footways through urban areas and busy rural footways local shopping area	Footways associated with low usage, short estate roads to the main routes, culs -de-sacs , link footpaths including service strips	Little used rural footways serving very limited numbers of properties
	Primary Walking	Secondary Walking	Link Footways	Local Access Footways	Minor Footways
<b>Inspection Frequency</b>	<b>MONTHLY</b>	<b>3 MONTHLY</b>	<b>6 MONTHLY</b>	<b>12 MONTHLY</b>	<b>24 MONTHLY</b>
<i>Horizontal measure</i>	= > 75mm dia	= > 75mm dia	= > 75mm dia	= > 75mm dia	= > 75mm dia
Very LIKELY > 40mm	P 1	P 1	P 1	P 2	P 3
LIKELY 30 to < 40mm	P 1	P 1	P 2	P 3	P 3
POSSIBLE 20 to < 30mm	P 2	P 2	P 3	P 3	P 4
UNLIKELY 10 to < 20mm	Pre-emptive	Pre-emptive	Pre-emptive	No Action	No Action
RARE < 10mm	No Action	No Action	No Action	No Action	No Action

#### Notes:

An area behind a kerb where the adjacent footway surfacing has sunk by 20mm or more in height over a minimum length of 300mm will be identified as a defect that meets our investigatory levels. Where trips caused by third parties are identified the guidelines in Section 4 Definitions, of this manual are to be followed ensuring our NRSWA and KIERWSP Third Party Claims Teams are informed to allow costs to be recovered. Pre-emptive repairs - where other priority works are being carried out in the same traffic management No Action - unless dynamic risk assessment on site advises other priority category

## 2.0 Footways

## 2.5 Kerb Displacements

	SEVERITY				
	SEVERE	HIGH	MEDIUM	LOW	NEGLIGABLE
	Busy Urban shopping and business areas and main pedestrian routes	Medium usage routes through local areas feeding into primary routes, local shopping centres etc	Linking local access footways through urban areas and busy rural footways local shopping area	Footways associated with low usage, short estate roads to the main routes, culs -de-sacs , link footpaths including service strips	Little used rural footways serving very limited numbers of properties
	Primary Walking	Secondary Walking	Link Footways	Local Access Footways	Minor Footways
Inspection Frequency	MONTHLY	3 MONTHLY	6 MONTHLY	12 MONTHLY	24 MONTHLY
Horizontal measure	= > 75mm dia	= > 75mm dia	= > 75mm dia	= > 75mm dia	= > 75mm dia
Very LIKELY > 40mm	P 1	P 1	P 1	P 2	P 3
LIKELY 30 to < 40mm	P 1	P 1	P 2	P 3	P 3
POSSIBLE 20 to < 30mm	P 2	P 2	P 3	P 3	P 4
UNLIKELY 10 to < 20mm	Pre-emptive	Pre-emptive	Pre-emptive	No Action	No Action
RARE < 10mm	No Action	No Action	No Action	No Action	No Action

### Notes:

A kerb adjacent to a footway with a vertical displacement of 20mm or more in height will be identified as a defect that meets our investigatory levels.

A Kerb adjacent to a footway with a chip which is 20mm or more in depth and has a maximum horizontal dimension greater than 75mm will be identified as a defect that meets our investigatory levels. A joint between kerbs that is 20mm or more in depth and greater than 75mm in width will be identified as a defect that meets our investigatory levels. Where kerb displacements caused by third parties are identified the guidelines in Section 4 Definitions, of this manual are to be followed ensuring NRSWA Team and KIERWSP Third Party Claims Team are informed to allow costs to be recovered.

Pre-emptive repairs - where other priority works are being carried out in the same traffic management. No Action - unless risk assessment advises otherwise.

## 2.0 Footways

### 2.6 Tree Roots

	SEVERE	HIGH	MEDIUM	LOW	NEGLIGABLE
Road Type	Busy Urban shopping and business areas and main pedestrian routes	Medium usage routes through local areas feeding into primary routes, local shopping centres etc	Linking local access footways through urban areas and busy rural footways local shopping area	Footways associated with low usage, short estate roads to the main routes, culs -de-sacs , link footpaths including service strips	Little used rural footways serving very limited numbers of properties
Inspection Frequency	Primary Walking MONTHLY	Secondary Walking 3 MONTHLY	Link Footways 6 MONTHLY	Local Access Footways 12 MONTHLY	Minor Footways 24 MONTHLY
Horizontal measure	= > 75mm dia	= > 75mm dia	= > 75mm dia	= > 75mm dia	= > 75mm dia
Very LIKELY > 40mm	P 1	P 1	P 1	P 2	P 3
LIKELY 30 to < 40mm	P 1	P 1	P 2	P 3	P 3
POSSIBLE 20 to < 30mm	P2	P 2	P 3	P 3	P 4
UNLIKELY 10 to < 20mm	Pre-emptive	Pre-emptive	Pre-emptive	No Action	No Action
RARE < 10mm	No Action	No Action	No Action	No Action	No Action

#### Notes:

A step in a footway caused by a tree root, which is vertical, sharp edged and 20mm or more in height will be identified as a defect which meets investigatory levels. Significant heaving of a footway caused by a tree root which has a slope steeper than 1 in 3 and a height of 100mm or more will be identified as a defect which meets investigatory levels, excluding areas within 300mm of the base of the tree. Investigatory levels and defect repair periods for heaving of a footway caused by tree roots will be identified using the "Safety Defect Repair Timescales"

Pre-emptive repairs - where other priority works are being carried out in the same traffic management

No Action - unless dynamic risk assessment on site advises other priority category



General Defect Matrix - other assets ( Non- Carriageway or Footway)

	SEVERITY				
	SEVERE	HIGH	MEDIUM	LOW	NEGLIGABLE
	Busy Urban shopping and business areas and main pedestrian routes	Medium usage routes through local areas feeding into primary routes, local shopping centres etc	Linking local access footways through urban areas and busy rural footways local shopping area	Footways associated with low usage, short estate roads to the main routes, culs -de-sacs , link footpaths including service strips	Little used rural footways serving very limited numbers of properties
	Primary Walking	Secondary Walking	Link Footways	Local Access Footways	Minor Footways
	<b>MONTHLY</b>	<b>3 MONTHLY</b>	<b>6 MONTHLY</b>	<b>12 MONTHLY</b>	<b>24 MONTHLY</b>
<b>Inspection Frequency</b> <b>High Impact</b> - Major Defect that could result in a serious danger/ hazard	P 1	P 1	P 1	P 2	P 3
<b>Noticeable</b> Significant defects that could be a danger/ hazard	P 1	P 1	P 2	P 3	P 3
<b>Low</b> Some defects present, but unlikely to create a danger/ hazard	P2	P 2	P 3	P 3	P 4
<b>Negligible</b> Minor defects that are not considered a danger/ hazard	Pre-emptive	Pre-emptive	Pre-emptive	No Action	No Action
	No Action	No Action	No Action	No Action	No Action

**Notes:**

Pre-emptive repairs - where other priority works are being carried out in the same traffic management

No Action - unless dynamic risk assessment on site advises other priority category

## 2. Footways

### 2.7 Verge Encroachment

#### Description:

An area of the footway where vegetation or verge encroachment forms a tripping hazard 20mm or more in height will be identified as a defect meeting investigatory levels. Vegetation or other material that gives way under the force of a footstep will not generally be defined as a tripping hazard.

Investigatory levels and defect repair periods for tripping hazards caused by vegetation or verge encroachment will be identified using the defect matrix for 'Footways - slabs and blocks.'

Where vegetation or verge encroachment causes an obstruction consideration will also need to be given to the following:

- Is a minimum footway width of 1m available?
- Is the footway immediately adjacent to a carriageway?
- Can users of the footway pass each other safely?
- Will the vegetation or verge encroachment force pedestrians to use an adjacent carriageway or cycle path?

Investigatory levels and defect repair periods for heaving of a footway caused by tree roots will be identified using the "General Defect Matrix – other assets (Non-carriageway and footway)."



## 2. Footways

### 2.8 Paved Verges

#### Description:

Areas where materials such as cobbles, setts or tactile paving are present will need careful consideration.

**A:** Areas where pedestrians are expected to walk, e.g. areas of tactile paving and cobbles: Investigatory levels and defect repair periods will be identified using the defect matrix for "Footways - slabs and blocks."

**B:** Areas where paving materials are intended to deter pedestrians: Investigatory levels and defect repair periods for heaving of a footway caused by tree roots will be identified using the "General Defect Matrix– other assets (Non-carriageway and footway)."

A



B



B



## 2.0 Footways

### 2.9 Skidding Resistance

	SEVERE	HIGH	MEDIUM	LOW	NEGLIGABLE
	Busy Urban shopping and business areas and main pedestrian routes	Medium usage routes through local areas feeding into primary routes, local shopping centres etc	Linking local access footways through urban areas and busy rural footways local shopping area	Footways associated with low usage, short estate roads to the main routes, culs -de-sacs , link footpaths including service strips	Little used rural footways serving very limited numbers of properties
	Primary Walking	Secondary Walking	Link Footways	Local Access Footways	Minor Footways
<b>Inspection Frequency</b>	<b>MONTHLY</b>	<b>3 MONTHLY</b>	<b>6 MONTHLY</b>	<b>12 MONTHLY</b>	<b>24 MONTHLY</b>
<i>Horizontal measure</i>	= > 75mm dia	= > 75mm dia	= > 75mm dia	= > 75mm dia	= > 75mm dia
<i>Impact</i>					
<b>HIGH</b> Major defects that could result in a serious danger/hazard	P 1	P 1	P 2	P 2	P 3
<b>NOTICEABLE</b> Significant defects that could be a danger/ hazard	P 2	P 2	P 3	P 3	P 3
<b>LOW</b> Some defects present but unlikely to create a danger/ hazard	P 4	P 4	P 4	P 4	P 4
<b>NEGLIGIBLE</b> Minor defects that are not considered a danger/hazard	No Action	No Action	No Action	No Action	No Action

#### **No Action - unless dynamic risk assessment on site advises other priority category**

#### Description:

Safety inspections will only be required to identify significant or major defects that can be identified visually during the normal course of the safety inspection.

Significant or major defects caused by polishing of surface courses that may cause danger/hazard are to be referred to the Area Manager to investigate and advise.

Excessive grit, stone, oil or other debris will be removed within the timescales shown in the matrix above.



### 3. Cycle Routes

#### 3.1 Cycle Routes

##### Description:

**Category A** – Part of the carriageway (marked cycle lanes)

Refer to the defect matrices for footways for investigatory levels and defect repair periods.

**Category B** – Remote from carriageway

Refer to the defect matrices for footways for investigatory levels and defect repair periods.

**Category C** – 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 special powers or duties. Where NCC is responsible for cycle trails they are inspected by and maintenance work identified by NCC.

Also consideration needs to be given for cycle provision on carriageways other than marked cycle lanes and/ or marked cycle provision where cycle flows are significant.

##### **All Categories**

Particular attention will be required to ensure all iron work/chambers do not pose a hazard to cyclists. Consideration must also be given to encroaching and overhanging vegetation.

**Category A**



**Category B**



**Category C**



#### 4. Highway Drainage Systems

##### 4.1 Covers, Gratings and Frames and Privately Owned Rainwater Channels

###### Description:

A cover, grating or frame in a carriageway, footway, cycle route or verge that is significantly damaged, dislodged or missing will be identified as a defect which meets our investigatory levels.

Privately owned rainwater channels that are significantly damaged, dislodged or missing that are likely to cause a significant danger or hazard will be made safe in accordance with section 4 of this manual and recharged to the property owner through the Third Party Claims team.

Investigatory levels and defect repair periods for significantly damaged, dislodged or missing covers, gratings, frames or privately owned rainwater channels will be determined using the "General Defect Matrix– other assets (Non-carriageway and footway)."



## 4. Highway Drainage Systems

### 4.2 High or Low Covers

#### Description:

#### **Footways and Cycle Routes**

A cover, grating or frame which is 20mm higher or lower than the adjacent footway or cycle route surface will be identified as a defect that meets our investigatory levels.

**Investigatory levels and defect repair periods for high or low covers, gratings or frames in footways or cycle routes will be determined using the defect matrix for "Footways - Slabs and Blocks."**

#### **Carriageways**

A cover, grating or frame which is  $\geq 20\text{mm}$  higher or  $\geq 40\text{mm}$  lower than the adjacent carriageway surface will be identified as a defect that meets our investigatory levels.

**Investigatory levels and defect repair periods for high or low covers, gratings or frames in carriageways will be determined using the defect matrix "Carriageways – Potholes."**

**At controlled pedestrian crossings or other defined crossing points, e.g. at junctions or where drop crossings are provided, investigatory levels will be as for the adjacent footway.**

#### **Non-Highway Authority**

Where safety defects are identified appropriate action will be taken and the relevant authority notified. Refer to section 4 Definitions, for procedures for undertaker's apparatus.



## 4. Highway Drainage Systems

### 4.3 Rocking Covers

#### Description:

A significant or major hazard caused by a cover, grating or frame that is not seated correctly will be identified as a defect that meets our investigatory levels.

Investigatory levels and defect repair timescales for rocking covers, gratings and frames will be determined using the “General Defect Matrix — other assets (Non-carriageway and footway).”





#### 4. Highway Drainage Systems

##### 4.4 Polished Covers

Description:

A significant or major hazard caused by a highly polished surface on a drainage cover will be identified as a defect which meets our investigatory levels.

Investigatory levels and defect repair timescales for rocking covers, gratings and frames will be determined using the “General Defect Matrix — other assets (Non-carriageway and footway).”



## 5. Embankments and Cuttings

### 5.1 Embankments and Cuttings

#### Description

Where a safety inspection identifies an embankment or cutting (Earthworks) failure that represents an immediate or imminent hazard or there is a risk of short-term failure the area will be made safe.

Defects that constitute an immediate or imminent hazard or where there is a risk of short term failure will be referred to the appropriate Area Manager for further investigation and assessment.

Investigatory levels and defect repair periods for embankment and cutting failures will be determined using the “General Defect Matrix – other assets (Non-carriageway and footway).”



## 6. Landscaped Areas and Trees

### 6.1 Verge Rutting

#### Description:

An area of rutting in a verge will be identified as a defect which meets our investigatory levels when it is likely to create a danger or serious inconvenience to users of the highway or the wider community. The need for treatment will be judged on individual circumstances having regard to the nature of the rutting.

- Are pedestrians likely to cross the verge at the location of the rutting?
- Is there a footway nearby?
- Is it a one-off rut or is rutting a constant problem at the location?
- Are there single or numerous ruts?

Investigatory levels and defect repair timescales for verge rutting will be determined using the “General Defect Matrix – other assets (Non-carriageway and footway).”



Description:

The control of injurious and noxious weeds is a statutory responsibility of the authorities under the Weeds Act 1959 and the Wildlife and Countryside Act 1981 also where we have noxious weeds on private land we can apply the regulations within the Town and Country Planning Act 1990 S.215 which allows notice to be served on the landowners.

The prescribed weeds are:

- Common Ragwort
- Broad-leaved Dock
- Curled Dock
- Creeping Thistle
- Spear Thistle

The Wildlife and Countryside Act 1981 identifies the following additional weeds:

- Japanese Knotweed
- Giant Hogweed

Where injurious or noxious weeds are identified during safety inspections their location must be notified to the Area Manager.

Appropriate action will be agreed by the Area Manager, Head of Operational Delivery and NCC.

## 6. Landscaped Areas and Trees

### 6.2 Noxious Weeds

#### 6.2.1 Common Ragwort (Senecio Jacobaea)

##### Description:

A daisy like flower that stands up to 60cm in height.

Its yellow flower heads are 15-25mm in size and come into flower in June-November.

This is a poisonous weed, in particular for cattle and horses.





## 6. Landscaped Areas and Trees

### 6.2 Noxious Weeds

#### 6.2.2 Broad-leaved Dock (*Rumex Obtusifolius*)

Description:

Broad oblong leaves up to 25cm long with hairy veins on the underside.



## 6. Landscaped Areas and Trees

### 6.2 Noxious Weeds

#### 6.2.3 Curled Dock (Rumex Crispus)

##### Description:

The leaves of Curled Dock are narrower and more elegant than those of Broad Leaved Dock. The leaves typically taper to a point with wavy undulating margins.

Curled Dock flowers from late June when the plant can extend to 1 meter or in some cases 2 meters in height.



## 6. Landscaped Areas and Trees

### 6.2 Noxious Weeds

#### 6.2.4 Creeping Thistle (Cirsium Arvense)

##### Description:

A perennial spreading mainly by deep roots.

Reaches 30-120cm in height.

Usually hairless with little branches and stems, also spineless.

Flower heads are lilac 15-25mm, fragrant and grow in clusters.

Flowers from June to September.





## 6. Landscaped Areas and Trees

### 6.2 Noxious Weeds

#### 6.2.5 Spear Thistle (Cirsium Vulgare)

Description:

Mature plants are normally 30-50cm tall.

Flowers from July to October.

Sharp spiny stems.

Flower heads 20-40mm across.

Often solitary.



## 6. Landscaped Areas and Trees

### 6.2 Noxious Weeds

#### 6.2.6 Japanese Knotweed (*Polygonum Cuspidatum*)

##### Description:

Spring – stem is a fleshy shoot of red and green.

Summer – stem grows to a maximum height of 2-3m, green with red/purple specks; hollow with distinct nodes similar to Bamboo.

Forms in dense clumps.



## 6. Landscaped Areas and Trees

### 6.2 Noxious Weeds

#### 6.2.7 Giant Hogweed (*Heracleum Mantegazzianum*)

##### Description:

Spring - stem starts growing in March/April reaching 300-500mm in height. Leaves - dark green, in a rosette; lobes deeply cut and spiky at the ends.

Summer - stem green with dark purple spots or blotches; furrowed-ribbed and sparse spiky hairs; hollow up to 100mm across and up to 5m tall. Flowers white, up to 500mm across, forming one large umbrella-like flower head. Lower leaves up to 2.5m long.

##### **WARNING:**

Small hairs on the plant are coated with poisonous sap and even the slightest touch can cause painful blistering and severe irritation - this reaction can be up to 48 hours after contact with plant. **Blisters are reactivated by sunlight and the effects can last a number of years.**

Seek medical attention immediately if blistering occurs.





## 6. Landscaped Areas and Trees

### 6.3 Overgrown Vegetation

#### Description:

Hedges and trees that obstruct visibility or encroach within the envelope described below will be identified as a safety defect.

#### Clearance envelope:

5.5m vertical clearance above carriageways.

2.5m vertical clearance above footways, cycle routes and verges.

Vegetation on highway verges that significantly obscures visibility to signs, traffic signals, lighting units and visibility splays will be identified as a safety defect.

Safety defects will be reported to the Area Amenity Technician who will arrange for appropriate action including notifying the Regulations where necessary.

Investigatory levels and defect repair timescales for overgrown hedges and trees will be identified using the "General Defect Matrix– other assets (Non-carriageway and footway)."

**A & B:** Areas where vegetation obscures visibility e.g. visibility splays, sight lines, signs or lighting.

**B & C:** Areas where vegetation creates an obstruction to highway users.



## 7. Fences and Barriers

### 7.1 Safety Fences

#### Description:

Safety fencing that is damaged or does not appear to be at the correct height will be identified as a safety defect. This includes, but is not exclusive to timber posts, areas of rusting and sections requiring tensioning.

Investigatory levels and defect repair periods for safety fence defects will be identified using the 'General Defect Matrix– other assets (Non-carriageway and footway)."

In general, defective lengths of safety fencing will be identified by placing traffic cones alongside the traffic face of the safety fencing within 7 calendar days of a significant or major defect being identified. Permanent repairs to significant or major defects will be included in the Planned Maintenance Programme.



## 7. Fences and Barriers

### 7.2 Pedestrian Guardrail

#### Description:

Pedestrian guardrails that are damaged or missing and represent a significant or major defect will be identified as a safety defect.

Investigatory levels and defect repair periods for pedestrian guardrails defects will be identified using the 'General Defect Matrix– other assets (Non-carriageway and footway)."

Where necessary sections of damaged or missing pedestrian guardrail may be made safe by removing damaged guardrail and/or erecting temporary barriers in their place.

Permanent repairs to significant or major defects will be completed as soon as replacement components can be made available.





## 7. Fences and Barriers

### 7.3 Boundary Fencing

#### Description

Damaged, vandalised or missing boundary fencing that prevents livestock from entering the highway or protects hazardous area's i.e. balancing ponds will be identified as a safety defect.

Boundary fencing that protrudes into carriageways, footways or cycle routes will be identified as a safety defect.

Investigatory levels and defect repair periods for boundary fencing defects will be identified using the 'General Defect Matrix– other assets (Non-carriageway and footway)."

Note - if boundary fencing is privately owned defects will be reported to the property owner.



## 8. Traffic Signs and Bollards

### 8.1 Traffic Signs (Posts and Plates)

Carriageway Hierarchy Type	All Routes	All Routes	All Routes	All Routes
Directional and Other Signs	Permanent Repair Within 6 Months P4			
Regulatory and Warning Signs	Permanent Repair Within 6 Months P4			
Stop, Give Way and Chevrons	Emergency or 24 hours			
Defect that is a major hazard and could result in serious danger/hazard	Emergency or 24 hours			



#### Description:

Significant or major defects caused by damage to traffic signs will be identified as a defect which meets our investigatory levels.

Stop, give way and chevron signs that are significantly damaged or missing or are not legible such that the sign is not effective or presents a hazard to highway users will be temporarily replaced within 24 hours and permanent repairs shall be carried out within 26 calendar weeks.

Other signs will be permanently repaired within 26 calendar weeks.

Where sign damage caused by third parties is identified the guidelines in Section 4 Definitions, of this manual are to be followed ensuring NRSWA Team and KIERWSP Third Party Claims Team are informed to allow costs to be recovered.



## 8. Traffic Signs and Bollards

### 8.2 Traffic Signs (Electrical Components)

#### Description:

A traffic sign that has damaged or exposed electrical components will be identified as a safety defect.

Investigatory levels and defect repair periods for signs with damaged electrical components will be identified using the 'General Defect Matrix– other assets (Non-carriageway and footway)."

Significant major defects will be reported to the Street Lighting PFI Service Provider within one working day of the defect being identified. The Street Lighting PFI Service Provider will arrange for appropriate action to be taken.

When a defect is identified that may require emergency response the Street Lighting PFI Service Provider will be contacted by telephone as soon as practicably possible after the defect is identified to take appropriate action.

Where electrical equipment has been damaged, or may be damaged, it is essential that the damage is only repaired or made safe by appropriately trained personnel. Untrained staff must never attempt to repair or make safe damaged, or potentially damaged, electrical equipment.

Damaged or exposed electrical components will be made safe as an emergency and permanent repairs shall be included in the PFI Street Lighting Planned Maintenance Programme in accordance with the Street Lighting PFI Standards.



## 8. Traffic Signs and Bollards

### 8.3 Bollards

#### Description:

A bollard that is significantly damaged or missing such that it is not effective or presents a hazard to highway users will be identified as a safety defect.

Investigatory levels and defect repair periods for signs with damaged electrical components will be identified using the 'General Defect Matrix– other assets (Non-carriageway and footway).’

Where electrical equipment has been damaged, or may be damaged, it is essential that the damage is only repaired or made safe by appropriately trained personnel. Untrained staff must never attempt to repair or make safe damaged, or potentially damaged, electrical equipment.

Damaged or exposed electrical components will be made safe as an emergency and permanent repairs shall be included in the PFI Street Lighting Planned Maintenance Programme in accordance with the Street Lighting PFI Standards.



## 9. Road Markings and Studs

### 9.1 Road Markings

#### Description:

Investigatory levels and defect repair periods for worn road markings will be identified using the 'General Defect Matrix– other assets (Non-carriageway and footway)."

Solid white lines such as STOP or No Overtaking should be dealt with as a P2 defect when they are no longer fit for purpose.

White line markings on Strategic and Main Distributor roads and road sections of high safety risk or with a relevant accident record should be renewed when they are no longer adequate for their intended purpose.

Missing markings resulting from utility company works will be referred to the NRSWA team and KIERWSP's Third Party Claims team to recover costs.



## 9. Road Markings and Studs

### 9.2 Road Studs

#### Description:

Investigatory levels and defect repair periods for potholes caused by missing road studs of the type held in the road surface will be identified using the defect matrix for 'Carriageways – potholes.'

Investigatory levels and defect repair periods for missing or non-reflective road studs will be identified using the "General Defect Matrix– other assets (Non-carriageway and footway)."

In general missing or non-reflective road studs on A Class roads" will be replaced within 26 CALENDAR WEEKS on a P4 order.

Other road stud maintenance will be carried out as part of programmed highway maintenance works when funds are available.





## 10. Structures

### 10.1 Structures

#### Description:

Highway safety inspections will only be required to identify significant or major defects that can be identified visually during the normal course of the safety inspection, e.g. damage to:

- The superstructure or supports of over bridges
- Parapets
- Expansion joints

Significant or major defects will be reported to the Structures Team who will arrange for appropriate action to be taken.

Where a defect is identified that may need an emergency response the inspector should notify the Control Hub by telephone as soon as practicably possible after the defect is identified.



## 11. Miscellaneous

### 11.1 Street Furniture

#### Description:

Damage to street furniture that presents a significant or major hazard will be identified as a defect that meets our investigatory levels.

Investigatory levels and defect repair periods for damaged street furniture will be identified using the 'General Defect Matrix– other assets (Non-carriageway and footway)."

Damage to street furniture will be reported to the relevant owner.

Litter bins are the responsibility of the Litter Authority (typically the local authority) or in villages it will be the Parish or Town Councils.

Bus Stops are generally privately owned, but are licensed by NCC. Damage should be reported to the Local Public Transport Officer who will report the damage to the relevant owner.



## 11. Miscellaneous

### 11.2 Street Name Plates

#### Description:

Damage to a street name plate that presents a significant or major hazard will be identified as a defect that meets our investigatory levels.

Investigatory levels and defect repair periods for damaged street name plates will be identified using the 'General Defect Matrix– other assets (Non-carriageway and footway).'"

Significant damage to street name plates will be reported to the local Borough/ District Council as the relevant owner.

Missing nameplates do not have to be recorded as long as there is no other significant damage to the highway. The relevant owner is responsible for maintaining street name plates.



## 11. Miscellaneous

### 11.3 Graffiti

#### Description:

Graffiti that presents a significant or major hazard will be identified as a defect that meets our investigatory levels, e.g. obscured traffic signs.

Investigatory levels and defect repair periods for traffic signs obscured by graffiti will be identified using the defect matrix for 'Traffic Signs and Bollards - Traffic Signs (posts and plates).'

Sections 48,49,50,51 and 52 of the Anti-Social Behaviour Act 2003 (as amended by section 31 of, and paragraphs 16-19 of schedule 4 to, the Clean Neighbourhoods and Environment Act 2005) enables a/ the Borough or District Council to serve a "defacement removal notice" on the owners, occupiers, operators (such as telecommunication companies and outdoor advertising companies) of "relevant surfaces" whose property is defaced with graffiti and/ or fly-posting.





## 11. Miscellaneous

### 11.4 Fly Posting and Advertising Boards

#### Description:

Fly posters and advertising boards that present a significant or major hazard will be identified as a defect meeting our investigatory levels other than advertisement boards that have non-disapproval in accordance with the Network Management Plan.

Investigatory levels and defect repair periods for fly posters and advertising boards will be identified using the 'General Defect Matrix– other assets (Non-carriageway and footway)."



## 11. Miscellaneous

### 11.5 Traffic Signal Installations

#### Description:

Damage to a traffic signal installation that presents a significant or major hazard to highway users will be identified as a defect that meets our investigatory levels.

Investigatory levels and defect repair periods for traffic signal installations will be identified using the 'General Defect Matrix– other assets (Non-carriageway and footway).’

Significant major defects will be reported to the UTC Control Centre within one working day of the defect being identified. The UTC Control Centre will arrange for appropriate action to be taken.

When a defect is identified that may require emergency or 24 hour response the KIERWSP staff member who identified the defect shall contact the UTC Control Centre by telephone as soon as practicably possible after the defect is identified who will take appropriate action.

Within our maintenance contract with Siemens if the defect is URGENT we attend within 2 hours. If it is a Lamp Fault or Non Lamp Fault it is 24 hours and Less Urgent Faults are 7 day response times.

Where electrical equipment has been damaged, or may be damaged, it is essential that the damage is only repaired or made safe by appropriately trained personnel. Untrained staff must never attempt to repair or make safe damaged, or potentially damaged, electrical equipment.



## 11. Miscellaneous

### 11.6 RISK BASED APPROACH - Assessment

#### Impact Rating

High	4	the hazard presented by the defect could result in serious injury or fatality	Impact will result in serious damage to persons or property.
			Highway users will instinctively react to avoid the defect.
			The defect could de-stabilise a vehicle.

#### Probability Rating

High	4	more than 75% chance of occurrence	vehicular, cycle or pedestrian speeds will be high
			Vulnerable users and / or different transport modes pass through
			The location of the defect will make it difficult to recognise and avoid
			Forward visibility may be compromised

Medium	3	the hazard presented by the defect could result in injury or serious claim against the authority	Impact will result in serious damage to persons or property.
			Highway users will instinctively react to avoid the defect
			The defect could de-stabilise a vehicle.

Medium	3	40 - 75% chance of occurrence	vehicular, cycle or pedestrian speeds may be high
			vulnerable users and/ or differing modes are less likely to share the highway
			responsible highway users may be able to recognise and take action to mitigate the impact
			forward visibility is good

Low	2	the hazard presented by the defect could result in minor injury or claim against the authority	Most impacts will not result in any injury
		if untreated the defect will contribute to the deterioration in the overall condition of the asset.	Highway users are unlikely to react to avoid the defect
		the defect is likely to deteriorate further before the next safety inspection.	the impact will not affect their passage
			If untreated local deterioration of the highway asset will be accelerated

Low	2	10 -40% chance of occurrence	vehicular, cycle or pedestrian speeds are moderate or low
			vulnerable users and/ or different transport modes are unlikely to share the highway
			majority of responsible highway users will be able to recognise and take action to mitigate the impact of the defect

Very Low	1	the hazard presented by the defect is unlikely to result in injury or a claim	The defect will be recognised by Highway Inspectors as requiring attention
		the defect is unlikely to deteriorate further before the next scheduled inspection.	Unlikely to be felt and recognised as a defect by most users
			The defect is very unlikely to cause injury.

Very Low	1	less than 10% chance of occurrence	vehicular, cycle or pedestrian speeds are very low
			the speed differential between users is very likely to be low
			the majority of responsible highway users will be able to avoid the defect

## 11. Miscellaneous

### 11.7 Street Lighting – PFI Service Provider

#### Description:

Damage to a street light that presents a significant or major hazard to highway users will be identified as a safety defect.

These could be such things as missing doors, leaning, damage to columns, exposed wires, damaged lanterns etc.

Investigatory levels and defect repair periods for street lighting will be identified using the 'General Defect Matrix– other assets (Non-carriageway and footway).'"

Significant major defects will be reported to the Street Lighting PFI Service Provider within one working day of the defect being identified. The Street Lighting PFI Service Provider will arrange for appropriate action to be taken.

When a defect is identified that may require emergency or 24 hour response the KIERWSP staff member who identified the defect shall contact the Street Lighting PFI Service Provider by telephone as soon as practicably possible after the defect is identified who will take appropriate action.

Where electrical equipment has been damaged, or may be damaged, it is essential that the damage is only repaired or made safe by appropriately trained personnel. Untrained staff must never attempt to repair or make safe damaged, or potentially damaged, electrical equipment.

Damaged or exposed electrical components will be made safe as an emergency and permanent repairs shall be included in the PFI Street Lighting Planned Maintenance Programme in accordance with the Street Lighting PFI Standards.



## Appendix B – PPE Policy

### KierWSP

#### PERSONAL PROTECTIVE EQUIPMENT (PPE) POLICY

This policy is aimed at protecting, as far as reasonably practicable, all KierWSP employees and supply chain partners against the risks associated within the highways industry.

This Policy relates specifically to PPE and sets the minimum standard for its provision use and storage.

The requirements and duties of all employees are documented in the KierWSP Integrated Management System which provide structure and governance around tasks and supervision. Specific guidance relating to PPE is given in *MW-OP-06-02-03 PPE requirements guidance* and must be read in conjunction with this policy.

KierWSP will:

- Comply with the requirements of the Health and Safety at Work act 1974 and specifically with Personal Protective Equipment at Work Regulations 2002 (As amended).
- Only use PPE as a last resort wherever there are risks to health and safety that cannot be mitigated or adequately controlled in other ways.
- Ensure that all PPE is properly assessed before use to make sure it is fit for purpose.
- Provide adequate resources to ensure PPE is maintained and stored properly.
- Provide all users with instructions and training on how to use their PPE safely.
- Ensure PPE is used correctly by all employees, visitors & stakeholders

This policy statement is supported by the senior management of the company and will be reviewed annually as a minimum.

This policy is available to any client or member of the public on request.

SIGNATURE



KierWSP

JV Board Member

April 2019

## Appendix C – IMS Inspection Process

