

Highways Inspection Procedure

Newcastle City Council





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Document Information

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Document Control

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1.0 Introduction

Roads and pavements are a top priority for residents and this policy sets out how we will undertake highway inspections to ensure that we keep the highway in a safe and serviceable condition.

This document sets out how we intend to implement our risk based highway defect management inspection regime taking in account the Well-managed Highways Infrastructure (WmHI) code of practice which supercedes the previous Codes 'Well-maintained Highways', 'Management of Highway Structures' and 'Well-lit Highways'.

2.0 Strategic Context

Our Council Delivery Plan 2018/19 sets out the vision for the city and how we will work towards delivering this in 2018/19.

Newcastle City council has a vision for the City to be a great place to live, work and visit and is structured around five key themed priorities:

- **Employment:** creating more and better jobs
- **Education and Skills:** the best learning opportunities for all
- **Environment:** a clean, green and safe Newcastle
- **Health and Social Care:** a healthy, caring city
- **Housing:** building more and better homes

Our Council Plan recognises that we have a statutory duty to maintain the highway and we must continue to deliver this going forward.

3.0 Legal Framework

There are numerous powers and specific duties relating to the maintaining the highways, but even in the absence of these specific duties and powers Newcastle City council have a duty of care to users and the community to maintain the highway which is maintainable at the public expense in a condition fit for its purpose.

3.1 Highways Act 1980

The Highways Act 1980 sets out the main duties of Highway Authorities in England and Wales. In particular, Section 41 imposes a duty to maintain highways maintainable at public expense, and almost all claims against authorities relating to highway functions arise from the alleged breach of this section.

Section 58 provides for a defence against action relating to alleged failure to maintain on grounds that the authority has taken such care as in all the circumstances was reasonably required to secure that the part of the highway in question was not dangerous for traffic.

3.2 Traffic Management Act 2004

This Act establishes a duty for the local traffic authority, Newcastle City Council, to manage their network with a view to achieving, so far as may be reasonably practicably having regard to their other obligations and policies, to secure the expeditious movement of traffic, including pedestrians and cyclists along with vehicles. Neighbouring authorities are expected to assist one another to comply with this requirement.

4.0 Well managed Highways Infrastructure - Code of Practice

In recent years the investment in highway infrastructure and its performance has been increasingly under the spotlight. Financial challenges and increased public demands and expectations have meant central government and the Department for Transport (DfT) have had to rethink the way local authorities manage their highway infrastructure.

At the direction of central government, the DfT commissioned and worked with the UK Roads Liaison Group (UKRLG) and the highway sector to review three national codes of practice: 'Well-maintained Highways', 'Management of Highway Structures' and 'Well-lit Highways'.

The aim was to enable local authorities to maintain their highways and infrastructure in the most effective and efficient way by strengthening guidance on what is known as 'risk based' highway maintenance. A risk based approach to asset management of highway infrastructure assets takes account of risks to

an asset as well as its condition. The review resulted in the publication in October 2016 of 'Well-managed Highway Infrastructure, A Code of Practice'.

The new code of practice (CoP) is designed to promote the adoption of an integrated asset management approach to highway infrastructure based on the establishment of local levels of service through risk based assessment. To assist authorities the code has developed 36 recommendations.

Working with the principles of this code Newcastle City Council has developed our own risk based levels of service, based on local needs, priorities and affordability and this document sets out our technical procedures for how the day to day delivery of the highway inspection process will be delivered.

4.1 Risk Based Approach

Recommendation 7 – Risk Based Approach of the CoP outlines the following

A risk based approach should be adopted for all aspects of highway infrastructure maintenance, including setting levels of service, inspections, responses, resilience, priorities and programmes.

The Highway Inspection Procedure details the day to day technical aspects of our risk based approach to highway inspections, and is an integral part of our Transport Asset Management Plan (TAMP)

Our TAMP is aligned to our corporate objectives and corporate approach to risk and management of risk, and is available on our webpage.

4.2 Competencies and Training

Recommendation 15 – Competencies and Training

The appropriate competencies for all staff should be identified. Training should be provided where necessary for directly employed staff, and contractors should be required to provide evidence of the appropriate competencies of their staff.

All highway inspectors are trained and accredited to LANTRA Highway inspection standards where they receive both general and specific training on a broad spectrum of highway maintenance related activities, including legal

considerations that affect highways and the duties of the Highway Authority. Details of the competencies expected of our highway inspection officers are detailed within Part B – Highway Inspection Procedure.

We also undertake ad-hoc audits of the inspections to provide an assurance that they are being undertaken in a consistent manner.

Each member of the team involved in delivering highway inspection will receive a copy of this procedure.

5.0 Highway Inspection Procedure

5.1 Highway Inspection Procedure

Our level of services are mindful of the code of practice (CoP), Well-managed Highway Infrastructure guidance to enable the needs of our customers to be met, our statutory requirements to be delivered and our maintenance hierarchy to meet the economic requirements of the city of Newcastle.

Key Principle	Aim	Level of Service
Safety	We will endeavour to ensure we provide a safe highway network.	To manage risks arising from our highway assets.
Serviceability	We will manage the current highway assets and where possible improve condition.	To manage serviceability matters arising from our highway assets.
Accessibility	We will endeavour to provide an accessible network for all our highway users.	To minimise congestion of our highway network and provide accessibility to all our customers.
Sustainability	We will make informed decisions when managing our highway assets to endeavour to achieve sustainability for our future generations.	To deliver best value in the management of our highway assets which reduces the congestion and impact on our environment.

Customer Service	We will endeavour to communicate and inform our customers on how we manage our highway assets.	To provide timely and relevant information to all our customers.
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5.2 Network Hierarchy

Recommendation 12 of the WmHI provides the following brief

A network hierarchy, or a series of related hierarchies, should be defined which include all elements of the highway network, including carriageways, footways, cycle routes, structures, lighting and public rights of way. The hierarchy should take into account current and expected use, resilience, and local economic and social factors such as industry, schools, hospitals and similar, as well as the desirability of continuity and of a consistent approach for walking and cycling.

In accordance with the WmHI Newcastle’s adopted highway has been assigned an inspection frequency depending on a range of factors. This produces a hierarchy of inspections for roads, footpaths and cycleways. Table 1 details the considerations for hierarchy for each asset group.

Asset type	Characteristics
Carriageways	<ul style="list-style-type: none"> • Character and volume of traffic (where available) • Usage (higher used streets will tend to receive a higher frequency of inspection, or potential to be used as a significant diversion route) • Nearby local amenities, including schools, shops and hospitals and adjoining network • Users of the road, such as vulnerable users • Events
Footpaths	<ul style="list-style-type: none"> • Pedestrian usage (where available) • Current and proposed use • Contribution to the quality of public space • Pedestrian users • Accident history
Cycleways	<ul style="list-style-type: none"> • Type (including shared, partially shared and fully segregated)

Table 1 – Factors influencing hierarchy

The Authorities frequency of inspection is based on the appropriate risk, functionality or usage of the highway, and can be amended should these

considerations change. Any changes will be documented and recorded within our Transport Asset Management Plan.

5.3 Newcastle’s Hierarchy of Inspections and Frequency

The road hierarchy is determined by the functionality and scale of its use.

The table below shows the inspection hierarchy and frequency of inspections to be adopted by Newcastle City Council.

Maintenance Hierarchy	Category	Description	Frequency
NCC1	Motorway and Strategic Local Highway Route	Limited access – motorway regulations apply. Routes to provide strategic links to the wider region.	12 times per year
NCC2	Main Distributor	Key arterial routes serving major employment and residential areas within the City.	12 times per year
NCC3	Secondary Distributor	Urban routes regularly carrying bus, HGV and local traffic with front access and frequent junctions	12 times per year
NCC4	Estate roads linking to secondary distributor	Roads linking between main and secondary distributor network and access to key local amenities with frontage access and frequent junctions	2 times per year
NCC5	Minor Lanes	Narrow roads primarily for servicing of residential properties.	Once per year

Table 2 – Carriageway Hierarchy

Footway Network Hierarchy – Newcastle City Council

Maintenance Hierarchy	Category	Description	Frequency
NCF1	Prestige and primary walking Zone / Routes	Very busy areas of city centre cities with high public space and street scene contribution or busy urban shopping and business areas and main pedestrian routes. Generally heavy footfall due to seasonal markets, public events, including large capacity educational establishments and access to strategic buildings. Usage for seasonal special events for which are recorded on our Symology systems or events calendar i.e. access to football stadiums, national sporting events, Christmas markets / concerts may require additional ad hoc inspections	12 times per year
NCF2	Secondary Walking Routes	Medium usage routes through local areas feeding into primary routes, local shopping centres etc, link routes to and within busy urban shopping areas. Generally reduced footfall to primary walking zones with access to high usage medical centres, hospitals and educational establishments. Ad hoc usage for seasonal special events for which are recorded on our Symology system or events calendar i.e. access to football stadiums, national sporting events, Christmas markets / concerts may require additional ad hoc inspections.	4 times per year
NCF3	Link Footways	Linking local access footways through urban areas and some footways in rural areas where there is	2 times per year

		increased footfall. Generally estate footways providing links to bus stops, car parks, community parks, schools, community facilities, amenities e.g. community sports facilities, community centres, local transport interchanges and social centres.	
NCF4	Local Access and Minor Footways	Footways associated with low usage, short estate roads to the main routes. They are generally residential / estate roads and may include local amenities. All other footways not covered by above.	2 times per year

Table 3 – Footway Hierarchy

Cycle Network Hierarchy – Newcastle City Council

Maintenance Hierarchy	Category	Description	Frequency
NCC1	On road	Where the cycle network is part of our road network the inspection frequency will be as the same as the road.	Same as roads
NCF2	Shared with footpath or segregated	Where the cycle network is part of our footpath network or segregated by white lines or physical means, the inspection frequency will be as the same as for the footpaths or will be inspected annually.	Same as footpaths or annually

Table 4 – Cycle Network Hierarchy

5.4 Seasonal / exceptional events on the highway

A seasonal / exceptional event is defined as a mass participation which substantially increases footfall on the highways which may result in the carriageway being utilised as a footway.

This may generate an additional inspection of the carriageway and footway prior to the event and may lead to the carriageway being inspected by applying footway investigatory levels.

An example of an event could be a concert or sporting event where the carriageway is closed to vehicle access and only pedestrian access permitted.

Highway Inspections will be undertaken in the frequency as specified above wherever reasonably practicable.

5.5 Categories of Inspection

We undertake the following inspections;

Driven Safety Inspections – These surveys are intended to identify defects that are likely to create a danger or serious inconvenience to users of the network. They are undertaken by two Highway Inspectors in a slow moving vehicle at frequencies identified above.

Service Inspections – These are more detailed walked inspections undertaken by our Highway Inspectors to ensure the individual highway elements (carriageways, footway, road signs, etc) meet the serviceability requirements that comply with the needs of users and the Highway Asset Management Plan.

Condition Surveys – Assist in identifying deficiencies in the footways and carriageways making up the highway. If untreated they will adversely affect the long term performance and serviceability. A programme of condition surveys may include SCANNER, Coarse Visual Inspection (CVI), Griptester and Footway Network Survey (FNS) which provides condition data for the network. These are undertaken by external providers. This helps us to establish a programme of maintenance work not requiring intervention sooner.

5.6 Defect Reported by Customers

We will endeavour to assess all defects reported by customers relating to the highway assets within 5 working days unless there are exceptional circumstances such as a severe weather event which prevent us complying with our timescales. In the event that the defect is reported as dangerous we will undertake an office based risk assessment and should it be deemed necessary it will be investigated within 24 hours.

5.7 Defect Investigatory Levels

This section sets out the investigatory levels and operations processes that are considered to be appropriate and responsible, taking into account the safety of highway users.

Any item with a defect level which corresponds to, or is in excess of, the defect investigatory level adopted shall be assessed for likely risk. It should be noted that occasionally a defect below the investigatory level may actually be investigated and repaired taking various local factors into account. For example a defect below the investigatory level outside sheltered accommodation may be assessed by the Highway inspector as posing a higher risk of injury.

Investigatory levels have been reassessed as part of consultation with neighbouring authorities and has been determined by a risk based approach. These investigatory levels will be reassessed where a significant change to the network is made.

Category	Investigatory Level
Footway	20mm or above
Carriageway	40mm or above
Carriageway at pedestrian crossing points	20mm or above

Table 5 – Investigatory Levels

Following an identification of a defect that meets the investigatory level and has been assessed as requiring a repair, it will be processed for appropriate action with the following response times.

Category	Description	Response Time
1	Emergency defects which represent an imminent serious risk to highway users due to their nature, extent and location eg sinkhole, major debris	Attend immediately and repair or make safe within 2 hours
2	Urgent defects which represent a serious risk to highway users due to their nature, extent and location, eg missing gully,	Repair or make safe within 24 hours
3	Standard defects which do not require urgent attention but represent a risk to highway users,	Repair within 10 working days
4	Defects that are above investigatory level that can be repaired as part of a planned programme such as replacement of damaged sign, faded road markings	Repair within 30 working days
5	Not classed as a defect or safety critical works and but may be considered as potential scheme as part of a future programme of work. ie large area of broken flags, irregular carriage surface	Future works programme or 60 days (whichever is the latest)

Table 6 – Category Response times

5.8 Investigatory levels

The following investigatory levels for typical highway defects will be adopted by Newcastle City Council. This list is not exhaustive and each defect will have a risk based assessment undertaken.

Asset Type	Defect	Investigatory Level
Carriageway	Pothole, spalling, rutting, gap, crack	40mm deep
Pedestrian Crossing	Trip, pothole	20mm deep
Footway	Trip, pothole, sunken covers, rocking flags	20mm in all other areas except back lanes which is 40mm
	Depression	30mm deep in flexible less than 300mm wide with no tripping face
Cycleway	Pothole, trench or other abrupt level difference in cycle lane forming part of carriageway	40mm
	Pothole, trench or other abrupt level difference in shared/segregated by lining cycle/pedestrian network	20mm
Iron work	Missing cover or damaged cover	Yes
	Level difference within framework	20mm in footway 40mm in carriageway
Verges	Significantly sunken or overridden causing a hazard to users	150mm adjacent to footway
Drainage	Standing water caused by blocked gullies leading to network restrictions	Yes
Road Markings	Worn, missing or faded markings	Yes, exceeding half missing or worn
	Missing item causing a hazard	Yes

Street furniture ie signs, bollards	Damaged item causing a hazard	Yes
Safety Fence and barriers	Damaged or misaligned item causing a hazard	Yes
	Missing panel	Yes
Traffic Signals	Signals not operating properly	Yes
	Items obscured by trees or hedges	Yes
Street Lighting	Lights not operating correctly	Yes – reported to SSE
	Items obscured by trees or hedges	Yes
Stairs and Steps	Defects noted on stairs/steps	Yes
	Missing tiles	Yes
Trees	Dead, dying, diseased or those with broken limbs posing a hazard	Yes

Table 7 – Typical Investigatory Levels

5.9 Highway Inspector Risk Assessment

In line with the WmHI, each defect meeting the investigatory level will be assessed to determine the associated risk. This will depend on a number of factors including the road type, users and location.

The overall risk has been evaluated through an assessment of the likely impact should the risk occur and the probability of the impact occurring. This is to be used as a guide by the Highway Inspectors.

Likelihood of Event Occurring	Consequence of Event Occurring				
	Negligible	Low	Medium	High	Severe
Negligible	1	2	3	4	5
Very Low	2	4	6	8	10
Low	3	6	9	12	15
Medium	4	8	12	16	20
High	5	10	15	20	25
Key to Risks					
Negligible	Low	Medium	High	Urgent	

Table 8 – Risk Matrix

The colour in the matrix identifies the priority response as detailed below

- Urgent** – Category 1, 2hrs response
- High** – Category 2, 24hr response
- Medium** – Category 3, 10 working days response
- Low** – Category 4, 30 working day response
- Negligible** – Category 5, Future works programme

The consequences associated with an event leading to failure or service reduction may include:

Safety – including fatalities and personal injuries;

Functionality – impact of a loss or reduction in service at route, asset or component level, such as weight restrictions on a bridge;

Cost – increased costs due to bringing forward or delaying work, repair costs, fines or litigation costs and loss of income or income potential;

Sustainability – any impact on future use of highway infrastructure assets.

Environment – environmental impacts, such as pollution caused through traffic delay or contamination from spillages, the sensitivity of the route/area, etc;

Reputation – public confidence in organisational integrity; and

Community costs – damage to property.

End of Report