

THE VALE OF GLAMORGAN COUNCIL

ENVIRONMENT AND REGENERATION SCRUTINY COMMITTEE: 12TH MARCH, 2024

REFERENCE FROM CABINET: 8TH FEBRUARY, 2024

**“C236 HIGHWAY MAINTENANCE INSPECTION REGIME (NBS)
(SCRUTINY – ENVIRONMENT AND REGENERATION) –**

The Cabinet Member presented the report, the purpose of which was to propose changes to the footway and carriageway inspection regime.

Councillor Wilson said that historically inspections had taken place on demand but it was proposed to move to a new regime to assess risk and maximise the health and efficiencies of the highway network, being more proactive than reactive on highways and active travel routes used regularly.

The Leader looked forward to the discussion that would follow at Environment and Regeneration Scrutiny Committee.

This was a matter for Executive decision.

Cabinet, having considered the report and all the issues and implications contained therein

RESOLVED –

(1) T H A T the changes to the Council’s Highway Network Hierarchy, Inspection Regime and Repair Regime as described in the Report and contained at Appendix 1 be agreed as the basis for the Council’s inspection and routine repair of publicly maintainable highway assets from 1st April, 2024.

(2) T H A T the national minimum standard for inspection of CH3 (main and secondary distributor roads, such as Ffordd Y Mileniwm Barry) be adopted, such that the inspections increase from every 6 months to every 3 months.

(3) T H A T the standard of inspecting CH4 (link roads, such as Romily Road Barry or Terra Nova Way Penarth) be adopted and increased from every 6 months to every 3 months.

(4) T H A T the report be referred to Environment and Regeneration Scrutiny Committee for consideration.

(5) T H A T subject to the Scrutiny Committee agreeing the details of the report and making no further comments, Resolutions 1, 2 and 3 be agreed, with the proposed changes coming into effect from 1st April, 2024.

Reasons for decisions

- (1) To agree, subject to the consideration of the Scrutiny Committee, to update the Council's existing Highway Safety Manual 2014 in accordance with the risk-based approach and adopt our improved Highway Maintenance Manual 2024.
- (2) Subject to the views of the Scrutiny Committee, to obtain consistency when inspecting the adopted asset in accordance with the UK Road Liaison Group Code of Practice of "Well Managed Highway Structure" in line with our neighbouring authorities. (<https://content.tfl.gov.uk/well-managed-highway-infrastructure.pdf>)
- (3) To assist in aligning the Council's standard for inspections with neighbouring Authorities and classification of road types.
- (4) To ensure appropriate elected Member involvement.
- (5) To agree the report details with no further recourse to Cabinet necessary, should the Scrutiny Committee be in agreement with the changes proposed."

Attached as Appendix – Report to Cabinet: 8th February, 2024

Meeting of:	Cabinet
Date of Meeting:	Thursday, 08 February 2024
Relevant Scrutiny Committee:	Environment and Regeneration
Report Title:	Highway Maintenance Inspection Regime
Purpose of Report:	To propose changes to the footway and carriageway inspection regime
Report Owner:	Cabinet Member for Neighbourhood and Building Services
Responsible Officer:	Miles Punter - Director of Environment and Housing Services
Elected Member and Officer Consultation:	Operational Manager - Engineering Operational Manager - Neighbourhood Services: Healthy Living and Performance Directorate Accountant Business Manager Committee Reports Operational Manager – Performance and Policy Senior Insurance Officer
Policy Framework:	This is a matter for Executive decision by Cabinet.
<p>Executive Summary:</p> <ul style="list-style-type: none"> • The Council has a duty maintain the highway at public expense under Section 41 of the Highways Act (1980). • This Report seeks the approval of Cabinet for Highway Condition Inspection Regime changes including amendments to the Council’s Highway Network Hierarchy, Inspection Regime and Repair Regime following the initial Highway Risk Review with the County Surveyors Society Wales (CSSW) in October 2019. • This Report proposes that the Highway Maintenance Manual 2021 (Appendix 1 refers) supersedes the Highway Safety Manual 2014 (Appendix 2 refers). 	

Recommendations

1. That the changes to the Council's Highway Network Hierarchy, Inspection Regime and Repair Regime as described in this Report and contained at Appendix 1 be agreed in principle as the basis for the Council's inspection and routine repair of publicly maintainable highway assets from 1st April, 2024.
2. That Cabinet agrees in principle to adopt the national minimum standard for inspection of CH3 (main and secondary distributor roads, such as Ffordd Y Mileniwm Barry), such that the inspections increase from every 6 months to every 3 months.
3. That Cabinet agrees in principle to adopt the standard of inspecting CH4 (link roads, such as Romily Road Barry or Terra Nova Way Penarth) from every 6 months to every 3 months.
4. That this report is referred to Environment and Regeneration Scrutiny Committee for its consideration.
5. That subject to the Scrutiny Committee agreeing the details of this report and making no further comments, Recommendations 1, 2 and 3 be agreed, with the proposed changes coming into effect from 1st April, 2024.

Reasons for Recommendations

1. To agree, subject to the consideration of the Scrutiny Committee, to update the Council's existing Highway Safety Manual 2014 in accordance with the risk-based approach and adopt our improved Highway Maintenance Manual 2024.
2. Subject to the views of the Scrutiny Committee, to obtain consistency when inspecting the adopted asset in accordance with the UK Road Liaison Group Code of Practice of "Well Managed Highway Structure" in line with our neighbouring authorities. (<https://content.tfl.gov.uk/well-managed-highway-infrastructure.pdf>)
3. To assist in aligning the Council's standard for inspections with neighbouring Authorities and classification of road types.
4. To ensure appropriate elected Member involvement.
5. To agree the report details with no further recourse to Cabinet necessary, should the Scrutiny Committee be in agreement with the changes proposed.

1. Background

- 1.1 A revised Code of Practice for Highways (the Code) "Well Managed Highway Infrastructure" was published in October 2016. This revised Code recommends the introduction of a risk-based approach to all aspects of highway maintenance - (<https://content.tfl.gov.uk/well-managed-highway-infrastructure.pdf>).
- 1.2 The Council's current standards are documented in the 'Highway Inspection Manual, 2014 (Appendix 2)' and are based on guidance from 'Well- maintained

Highways: Code of Practice for Highway Maintenance', 2005 and are overdue a review.

- 1.3** To facilitate a nationally consistent response to the Code of Practice, the County Surveyors Society Wales (CSSW) has published a method for local authorities to follow. This Report presents the results of the application of the 2016 method.
- 1.4** Officers have used the CSSW Risk Based Approach Method and tools to undertake a Risk Based Review of current Highway Asset Hierarchy, Inspection and Repair Regimes. The results of this review have meant that minor changes are required to the existing hierarchy, inspection and repair regimes for the Vale of Glamorgan.
- 1.5** An initial highway risk review comprising detailed consideration of the relevant risk data has been undertaken by experienced officers of the Highway Maintenance team and CSSW. A Report on the findings of this review can be found at Appendices 3 to 8 attached.
- 1.6** A comparison of the differences between the Council's current standards and the minimum recommendations provided by CSSW in response to the Code is included at Appendix 5.
- 1.7** Supporting data used in the creation of the risk review report and the establishment of a proposed revised network hierarchy are included within the spreadsheet that accompanies this report - Appendix 8 (Risk Data Summary Tab).

2. Key Issues for Consideration

- 2.1** The proposed Highway Maintenance Manual 2024 is attached at Appendix 1 to this Report.
- 2.2** This review of the Council's maintenance hierarchy was undertaken using the method recommended by CSSW reviewing 2590 Unique Street Reference Numbers (USRNs). This method is based on using the tables within Appendix 4 to guide the selection of an appropriate hierarchy classification for each highway asset. The method recommends that this is used as a guide and that authorities select hierarchies based upon these tables and consideration of local issues etc to determine the most appropriate hierarchy level.
- 2.3** After the review, 61 locations were identified as needing changing with 59 increasing in frequency of inspection and 2 decreasing infrequency of inspection from historic arrangements. The reasons for these changes were because of incorrect road classification, or an increase in pedestrian footfall, or increase in vehicular usage over recent years given development within the Vale of Glamorgan.

Carriageway and Footway

- 2.4** Appendix 4 shows the proposed new and existing hierarchy names for both carriageways and footways. The revised hierarchy names also associate a level of expected traffic (vehicular or pedestrian) against each. These expected traffic volumes are used as part of the risk assessment, details of which can be found in the Highway Maintenance Manual 2024 (Appendix 1) and Appendix 8 (1. Carriageway Hierarchy tab).
- 2.5** It should be noted that a separate footway hierarchy has not been established for the Vale of Glamorgan. Footways are inspected concurrently with the carriageway and the inspection frequency reflects the use of the road which requires a frequency of inspection that is shorter than would be required for the footway alone. Appendix 5 provides details of the current inspection timescales for footways.
- 2.6** The Council's current carriageway and footway routine inspections regime is shown at Appendix 5 along with the CSSW minimum recommended standards and the Council's current standards meet or exceed CSSW's minimum carriageway inspection frequencies.
- 2.7** CSSW recommends that a tolerance is applied to each inspection frequency to allow for unavoidable incidences such as bad weather or highway inspector sickness and it is suggested that a tolerance of 50% of the inspection interval or 3 months (whichever is the least) is appropriate.
- 2.8** It should be noted that the current arrangements do not allow any tolerances in the inspection regime. If any unavoidable incident does occur any change to the frequency must be approved by the Team Leader (Inspections) before they are implemented, and it is suggested that two weeks over the summer period and two weeks over Christmas period is added to regime to accommodate for both summer and festive annual leave requests.
- 2.9** Appendix 6 compares the Council's current defect response times criteria with the CSSW Recommended Minimum. The Council's current standards meet the CSSW Minimum standard for repair of critical defects of 2 hours response. All other response times exceed the CSSW Minimum standard, therefore it is recommended that the response time for safety defects is changed to 'By End of Next Working Day' for practical reasons and this standard will still meet the CSSW Minimum standard for carriageways CHSR, CH1 and CH2 and for footways FHVHU, FH1 and FH2. All other standards shall remain the same as they are.
- 2.10** Appendix 7 compares the Council's current defect dimension criteria for Critical, Safety and Maintenance defects with the CSSW Recommended Minimum and the Council currently meets or exceeds the CSSW Minimum standard for defect dimension criteria. It is proposed that the Council add the CSSW Minimum Standard maximum horizontal extent dimensions for all carriageway and footway

defect types and that the existing depth / height criteria should remain as is at this time.

3. How do proposals evidence the Five Ways of Working and contribute to our Well-being Objectives?

- 3.1** Looking to the long term the proposed changes to inspection regime will safeguard the Council's strategy regarding condition inspections in accordance with Code of Practice for Highways "Well Managed Highway Infrastructure", 2016 providing a safe and secure environment for the Vale of Glamorgan's residents and visitors. (<https://content.tfl.gov.uk/well-managed-highway-infrastructure.pdf>)
- 3.2** By taking an integrated approach the proposed changes to the inspection regime manage the local highway network based on an assessment of risk. This contributes towards the prevention agenda by assisting in improving active travel, accessibility and support of town centres, preventing, or reducing risk of harm to residents in the local community and providing a wider beneficial impact to the environment. It also balances short-term needs to maintain good highway infrastructure whilst contributing to the longer-term policy of promoting economic growth and reducing future impact on local communities. .
- 3.3** In terms of Involving People the process of developing the proposed changes brings the Council's inspection regime in line with the risk-based approach, Code of Practice that local authorities across Wales have all assessed. A large percentage of the 22 Authorities have already adopted the inspection regime changes.
- 3.4** The proposal has involved working in collaboration with CSSW and relevant highway officers ensuring that there is an agreement in delivering the changes to the inspection regime described within the report.

4. Climate Change and Nature Implications

- 4.1** There are no climate or nature implications to the proposed new Highway Maintenance Manual, however all four current highway inspectors each equally share their inspections across the Vale of Glamorgan Council boundary, with this now being the ideal timing to review each inspectors allocated locations to inspect. For example, one arrangement currently in place has two inspectors undertaking their inspections on different sides of the footway, which is not ideal.
- 4.2** The opportunity will therefore be taken to split the four inspectors into rural and urban zones, which will not only reduce time but also result in less journeys being driven and less fuel being consumed by their Council provided vehicles.

- 4.3 Discussions with internal fleet management staff will take place to explore opportunities of upgrading these current diesel vehicles to electric as soon as viable.
- 4.4 The criteria outlined in this report is based on all road users, however in terms of when roads are assessed for resurfacing, additional priority is given to routes that are known to be heavily used by cyclists.

5. Resources and Legal Considerations

Financial

- 5.1 The changes to the inspection regime proposed can be introduced with no financial implications to the Council.
- 5.2 There is often illegal activity on the highway network which takes time to action and issue fixed penalty notices to offending contractors. These activities include illegal skips, scaffolding and signage.
- 5.3 The changes to the inspection regime will allow the highway inspectors to pursue this illegal activity more rigorously ensuring that the highway is clear of unauthorised uses for customers.
- 5.4 Whilst the volume of inspections will increase this additional requirement will be offset by additional tolerances introduced. The service has also rationalised the inspection areas for highway inspectors to make the process more efficient and avoid unnecessary journey time travelling between inspection sites.

Employment

- 5.5 There are four Highway Inspectors, one Team Leader of Inspections and one Neighbourhood Manager that cover the management of the inspection regime, with all work carried out in-house by existing staff within the Council's Neighbourhood Services Highway Maintenance team. The impact of this change in maintenance terms will still mean there is a need for the same level of staffing although this will be kept under review.

Legal (Including Equalities)

- 5.6 As the Highway Authority the Council has a duty to meet the requirements of the following legislation.
- 5.7 The Highways Act 1980. This places a duty upon Highway Authorities to maintain highways, adopted as maintainable at public expense, and to keep them safe for public use.
- 5.8 New Roads and Street Works Act 1991: This places a duty upon Highway Authorities to co-ordinate all works in the highway for the purposes of ensuring

safety, minimising inconvenience to highway users, and protecting the highway and apparatus in it.

- 5.9** The Traffic Management Act 2004. This places a duty on Highway Authorities to ensure the expeditious movement of traffic on their road network and networks of surrounding Authorities.

6. Background Papers

None.



Vale of Glamorgan Council

Highway Maintenance Manual 2024



Vale of Glamorgan Council

Highway Maintenance Manual

Document Control

Version Number	Amendments Made	Date
V1.0	Nil – Original	September 2020

Council Approval

Version Number	Council Committee	Date
v1 .0	Cabinet Committee	September 2023

Responsibility for the Manual

The responsibility for the delivery of and updating of this plan are shown below

Council Officer	Responsible for
Neighbourhood Manager (Highway Maintenance)	Ensuring compliance with the manual and updating of the manual

1 Introduction

Purpose

The purpose of this manual is to document how the council manages highway maintenance. The manual shows how the council aims to meet its duties as the highway authority. It documents the methods used to ensure that the risk to users is appropriately monitored and managed.

Scope

The manual describes how the council maintains the road network under its control. It details the procedures used to plan and execute all works and functions associated with the management, operation and maintenance of the highway asset including how the activities are monitored to ensure compliance with council policies.

Legal Requirements

As the Highway Authority the council has a duty to meet the requirement of the following legislation:

- **The Highways Act 1980:** This places a duty upon Highway Authorities to maintain highways, adopted as maintainable at public expense, and to keep them safe for public use
- **New Roads and Street Works Act 1991:** This places a duty upon Highway Authorities to co-ordinate all works in the highway for the purposes of ensuring safety, minimising inconvenience to highway users, and protecting the highway and apparatus in it.
- **The Traffic Management Act 2004:** This places a duty on Highway Authorities to ensure the expeditious movement of traffic on their road network and networks of surrounding authorities.

National Guidance

To assist authorities in meeting their duties the following National Guidance is provided. The methods adopted in this manual are based upon the contents of the following:

- “Well-Managed Highway Infrastructure: A Code of Practice, UK Roads Liaison Group, 2016”
- “Risk Based Approach: Method”, 2019, CSSW, 2019
- “Highway Inspection Defect Recording Manual”, CSSW, 2019

Relevant Council Plans and Documents

This manual is part of a suite of documents that support the councils approach to managing the highway asset. These include; Highway Asset Management Plan, Highway Data Improvement Plan and Annual Status Reports.

2 Roles, Responsibilities and Competencies

The roles, responsibilities and competencies required of those involved in managing the council's highway asset are defined below.

Roles and Responsibilities

Role	Responsibility
Cabinet Members	Approve the use of this document as council policy.
Neighbourhood Manager (Highway Maintenance)	Develop the policy and standards, ensure their effective implementation, monitor the results and undertake a risk assessment update.
Team Leader (Inspections)	Ensure their effective implementation, monitor and review the results.
Highway Inspectors	Carry out inspections as per the inspection regime, recording the appropriate data for input into the AM system.
Works Gangs	Carrying out repairs as per the repair regime and record the required data for input into the AM system.
Contractors	Carry out repairs as instructed as instructed and record the required data for input into the asset management system.

Competencies and Training

CSS Wales manages a competency confirmation scheme covering a range of highway management competencies. Details of the scope of the scheme are included in Appendix E.

Council staff who have been confirmed as competent via this scheme listed in Appendix E.

3 Asset Register and Inventory

The asset register defines the roads that belong to and are maintained by the council. The inventory of the highway assets is based on the asset register and contains the detailed information required to manage the asset. The information includes amount, size, construction material, current condition etc. where such data is available

Asset Register

The definitive record of the roads that are the councils responsibility including the full list of adopted streets is located on the QGIS.

4 Risk Management

The risks associated with maintaining the highway are managed using the methods described below. This includes how the methods comply with the risk based approach required by the Code of Practice.

Code of Practice

A revised Code of Practice (the code) for Highways “Well Managed Highway Infrastructure” was published in October 2016 providing guidance that authorities are expected to follow and may rely upon when defending themselves against third party claims.

The most significant change to the previous guidance, proposed by the new CoP, is the introduction of a risk based approach to all decision making to be undertaken by each authority individually.

CSSW have developed a method in response to the code that it recommends authorities adopt. The method includes development of Hierarchy, Inspection Regime and Repair Regime for the highway assets, along with recommended minimum standards for inspection and defect repair.

Use of the CSSW Risk-Based Approach

Highway Maintenance undertake an risk assessments as detailed in the “CSSW Highways Asset Management Framework Recommended Practices - Recommended Practice 1 Risk Review”. With the results being recorded in the “RP1 Risk Assessment – Spreadsheet”

The details of the asset hierarchy, inspection and repair regimes adopted by the council and where they differ from (exceed) the CSSW recommended standards is detailed later in this document.

5 Network Hierarchy

The highway assets have been divided into network hierarchy categories that reflect use and function. This enables the inspection and repair regimes to be related to their associated risk.

Establishing the Network Hierarchy

The network hierarchies have been derived in accordance with the the Code of Practice “Well-Managed Highway Infrastructure: A Code of Practice, UK Roads Liaison Group, 2016” and the CSSW “Risk Based Approach: Method”. Details of how the hierarchies were derived is held in the “RP1 Annual Highway Asset Risk Review”.

Network Hierarchy Categories

Details of the hierarchies used for each asset group can be found in appendix A. The details of the hierarchy allocated to each individual asset are held in the council’s asset management systems.

A separate hierarchy for footways has not being established as carriageways and footways are inspected concurrently.

Regional Consistency

CSSW recommends that to achieve regional consistency consultation is undertaken with neighbouring authorities to enable consistent hierarchies to be allocated to assets which cross boundaries. At this time the consultation process is yet to be completed once done the assets with differing hierarchies between the council and a neighbouring authority will be listed in appendix A along with the reason for the difference.

Update and Review

The hierarchies are reviewed on an ongoing basis where changes to the asset occur and or significant changes in use happen (e.g. significant changes in traffic volume). As a minimum the hierarchy is reviewed and confirmed every 2 years. Records of the review are held in the “Vale of Glamorgan Council RP1 Annual Highway Asset Risk Review”. Any resultant recommended changes to the hierarchy will be proposed to council and their approval recorded.

6 Inspection Regime

In order to monitor the condition and repair needs of the asset the council deploys a regime of inspections of varying types and frequencies.

Types of Inspection

The council undertakes the following types of inspection:

1. **Reactive Inspections/Response:** inspections undertaken in response to the notification to the authority of potential defects by other sources (council employees, members of the public, emergency services etc.).
2. **Planned/Routine Inspections:** A regime of planned inspections the purpose of which is to identify defects that have the potential to cause harm to users and to identify defects that require repair in order to prevent escalation of deterioration and increased (avoidable) maintenance needs.
3. **Condition Surveys:** A regime of condition surveys that record the condition of components of the asset such that a programme of renewal/replacements can be derived. Condition surveys can be visual or machine based and may include testing where such is appropriate for the asset type.

Planned routine inspections are a combination of:

- **Driven Inspections:** inspections of the carriageway undertaken with a driver and a Highway Inspector, carried out from a slow-moving vehicle at a speed appropriate to the road conditions.
- **Walked Inspections:** inspections undertaken by a Highway Inspector on foot at a walking pace on the footway, where the footway and carriageway are assessed.

Inspection Frequencies

Reactive Inspections

Where a “safety” defect is notified to the council by a third party an inspection of the defect will take place within 24 hours and action will be taken as per the Council’s repair regime. (see section 14 repair regime for details of safety defect criteria).

Where a “maintenance” defect is notified to the council by a third party an inspection of the defect will take place within 5 working days and action will be taken as per the Council’s repair regime. (see section 14 repair regime for details of maintenance defect criteria).

Routine Inspection Frequencies

Routine Inspection frequency is based on the Network Hierarchy. It has been determined using the CSSW Highway Asset Risk Review Method and is reviewed every 2 years. The frequency of routine inspections is

shown below.

Carriageway Hierarchy	Inspection Interval	Comparison with CSSW Min Std
CHSR	Monthly	Meets
CH1	Monthly	Meets
CH2	Every 3 Months	Meets
CH3	Every 6 Months	Exceeds
CH4	Every 12 Months	Exceeds

Where a footway exists it is inspected to the frequency of the carriageway as shown above.

Inspection Tolerance

Due to the effect of adverse weather and to allow for sickness or leave it is possible that the specified frequencies cannot be met in some circumstances. Any changes to the frequencies must be approved by the Team Leader (Inspections) before they are implemented.

Inspection Schedule

Inspection routes in compliance with the regime above are held in the council's asset management system. The asset management system contains details of the inspection regimes, the inspections undertaken and the date of the next scheduled inspection. Inspections to be undertaken are provided to the inspectors at the beginning of each month. The use and character of a road will be considered when scheduling inspections, for example to avoid periods with higher numbers of parked vehicles. Best endeavours will be made to ensure that the timing of the inspection enables defects to be identified effectively.

Inspected Assets

The assets inspected during the routine inspection include (but are not be limited to) the following:

- Carriageways
- Footways
- Covers, Gratings & Frames (inc Statutory Undertakers apparatus)
- Kerbs, Edgings and Channels
- Drainage
- Guardrails, Fencing and Restraint Systems
- Verge, Trees and Hedges
- Road Studs and markings
- Signage
- Street Lighting
- Traffic Systems, Controlled Crossings, Illuminated Bollards and Cabinets
- Cleanliness and Weed Growth

Recording of Inspection Records

Records of the inspection and the resulting observations are recorded using tablet computers and the results transferred into the AM System in real time.

Condition Assessments

The council undertake the following condition assessments on their highway assets. The frequency of condition assessment is given in Appendix B.

Carriageways

- i. SCANNER (Surface **Condition Assessment** of the National Network of Roads)

SCANNER is a machine condition survey undertaken from a vehicle moving at traffic speeds. The results of the survey are held offsite by WDM and accessed via the WDM / WIP online interface.

- ii. Visual Condition Assessment –

A visual condition survey of all roads is undertaken using the CSSW Visual Condition Assessment Method. The carriageway condition is assessed by a CSSW trained inspector. Carriageway visual condition information is stored in the AMS database.

SCANNER surveys are arranged via a central contract managed by the Welsh Government. The contract covers A, B and C Roads. SCANNER surveys are not undertaken on the unclassified road network.

The SCANNER survey is undertaken at the following frequencies

Carriageway Annual Survey Coverage	
Road Class	SCANNER
A Roads	100% (one direction)*
B Roads	100% (one direction)*
C Roads	25% (one direction)

Visual condition assessments are not currently undertaken.

Footways

Visual condition assessments are not currently undertaken.

Structures

Visual Condition Assessment

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Structures are inspected using two levels of inspection:

- i. General Inspections (GIs'); GIs are visual inspections, possibly with some hands-on and basic assessment e.g. hammer tapping and measurements.
- ii. Principal Inspections (PIs); PIs are a more detailed visual inspection, with hands-on assessment of most/all elements plus detailed assessment.

A General Inspection involves recording the extent and severity of observed defects on a form the data from which is subsequently entered into the council's Bridge Management System (AMX).

A Principal Inspection involves the creation of a detailed report along with the data recorded on the form. The results of these inspections are also entered into the council's Bridge Management System (AMX).

Condition assessments are undertaken at the following frequencies.

Inspection Type	Survey Coverage
General Inspection	100 % Every 2 Years
Principal Inspection	100 % Every 6 Years (where required*)

*For smaller structures with easy access a General Inspection is considered sufficient without the need for a Principal Inspection to be undertaken.

Street Lighting

The condition of street lighting assets is assessed as follows:

Visual Condition

Visual condition assessment is carried out on an adhoc basis during maintenance visits with any obvious defects or poor condition assets being reported and actioned accordingly.

Electrical Safety

Electrical testing is carried out by an external contractor on all equipment. The results of the electrical testing are entered onto the Confirm asset management system.

Inspection Type	Survey Coverage
Electrical	100 % Every 6 Years

Remote Monitoring

The council has a quantity of lanterns that have remote monitoring. By the end of 2020/21 approximately 3700 lanterns will be controlled by Philips City Touch remote monitoring system.

Condition assessments are undertaken at the following frequencies.

7 Repair Regime

Repairs identified via inspection or by 3rd party notification, are prioritised for repair based upon the risk that they pose to users. The methods used to do this are set out below.

Defect Categories

The data recorded during inspections is used to determine defect categories. Defect categories prioritise repairs using the defect response times adopted by the council and shown below.

Defect Categories	Description	Response Time
Critical Defect	A situation where the inspecting officer considers the risk to safety high enough to require immediate action, e.g. Collapsed cellar, missing utility cover, fallen tree, unprotected opening	2 Hours*
Safety Defect	Service requests or defects requiring a response as soon as possible to remove a potential risk of injury to users	Make safe by the end of the next working day
Maintenance Defect (High)	Other defects that warrant treatment, in order to prevent them deteriorating into a safety defect prior to the next scheduled inspection	15 Working Days (a working day is Monday to Friday and excludes bank holidays)

*Response time for critical defects refers to the time to attend site, make safe. Repair will then be asap thereafter. Making safe may constitute displaying warning notices, coning off or fencing off to protect the public from the defect.

Defect Types and Intervention Levels

Details of the defect types identified and the intervention levels that have been prescribed for each defect category are shown below.

Asset Type	Defect Type	Hierarchy	Dimensional Criteria		Comparison with CSSW Min Std
			Depth/Height	Extent	
Carriageways	Pothole	All	>40mm	Maximum horizontal dimension greater than 150mm	Meets
	Protrusion	All	>40mm	Maximum horizontal dimension greater than 150mm	Meets
Footways	Pothole	All	>20mm	Maximum horizontal dimension greater than 75mm	Meets

“24 Hour” Emergency Cover

The Council operates a 24 hour emergency service via an out of hours Contact Centre, Contact One Vale (www.ValeofGlamorgan.gov.uk, 01446 700111). Incidents are reported to the contact centre who forward them to the Duty Officer and emergency response is provided if required.

This service provides where necessary an immediate and co-ordinated response to maintain highway safety at all times. Hazards dealt with include problems such as flooding, ice and snow, unsafe street works, traffic signal failure, electrical danger at street lighting installations, stray animals and clearing of the highway following a road traffic accident.

An incident log is produced by the Duty Office for every out of hours period. When action can be safely deferred, this log is used to initiate any additional action required in respect of particular incidents on the next working day.

Works Ordering

Works orders are generated automatically using the council's asset management system following the input of the inspection records.

Recording of Repair Records

On completion of the repair the contractor records the defect repaired noting if the size or depth has changed since the inspection.

The contractor returns the order to the council.

The admin team update the Council's asset management system with the supplied information.

The defect will only be deemed 'fully repaired' once all records have been entered into the asset management system.

8 Procurement

Details of how maintenance works for each asset are procured are shown below. Works are procured using a combination of internal and external resources.

How the service is delivered for each asset is shown below.

Asset	Work Type	In-House or Contractor
Carriageway	Routine and Reactive	Term Contract
	Planned	Term Framework Contract (South East Wales)
Footways	Routine and Reactive	Term Contract
	Planned	Term Framework Contract (South East Wales)
Drainage	Gully Cleansing	Inhouse Direct Labour Workforce
Street Lighting	Routine and Reactive	Term Contract
	Planned	Term Framework Contract (South East Wales)
Traffic Signals	Routine and Reactive	Term Contract
	Planned	Term Framework Contract (South East Wales)
Street Furniture	Routine and Reactive	Adhoc Contract as required

9 Customer Contact

Customer contact relating to the highway asset is managed as below.

Customer Relationship Management System

Communications are received from the public (customer) and Members of the Council via the following methods.:

- www.valeofglamorgan.gov.uk
- Phone – 01446 700111
- Email – c1v@valeofglamorgan.gov.uk / contactonevale@valeofglamorgan.gov.uk
- Social Media – Facebook and Twitter
- Post – Vale of Glamorgan Council, The Alps, Alps Quarry Road, Wenvoe, CF5 6AA

Each request is logged on the councils customer relationship system (Oracle) and referred to the relevant Officer for attention. The target to determine appropriate action is five working days).

Progress in dealing with complaints is monitored and pursued to a conclusion. When the matter has been addressed, the database is updated to record the action taken and, where applicable, the date on which the defect was rectified. Subsequently, the customer is advised of the action taken where necessary.

Scheme Notification and Roadwork's Reports

For all works undertaken on the highway the council provide a pre-works notification to properties affected by the works.

A weekly Roadwork's Report is circulated to the major motoring organizations, bus service providers, emergency services and local councils. This information is also available via the council's web site (www.valeofglamorgan.gov.uk/en/living/roads/roadworks-and-road-closures.aspx). The website gives details of works being undertaken on all routes, including the nature and anticipated duration of the works, and the method of traffic management being employed. Additional publicity is provided where exceptionally severe traffic delays are anticipated including using mobile variable messaging systems.

10 Utility Activity

The condition and management of the highway is affected by third party works. The management of these third-party activities is governed by legislation (New Roads and Street Works Act (NRSWA) 1991). The manner in which the council complies with its duties under this act is set out below.

Street Works

All utility activity undertaken on the council's highway network is co-ordinated by the Street Works Team and recorded within the asset management system. The Street Works Team ensure that all statutory undertakers comply with the New Roads and Street Works Act (NRSWA) 1991 and all amendments as notified in the Traffic Management Act 2004, to ensure that all works undertaken on the highway are completed to the required standards and are programmed to achieve the least disruption to members of the public.

The contact details can be found on www.WHAUC.com.

11 Third Party Claims

Third party claims are made against the council when members of the public believe that negligence on the part of the council, has resulted in injury or property damage.

Contacting the Council

If a member of the public wants to claim from the council they contact the Call Centre who will provide the 'Third Party Claim' form.

Processing 3rd Party Claims

The details of the third party claim process are held by the Highways Maintenance Team.

Review of Claims

The responsible officer receives an annual report from the Insurance team. The report details:

- the number of claims
- a breakdown of the type of claim (personal injury/property damage),
- the asset to which it refers,
- the specific details of the claim and
- whether the claim was successful or repudiated.

12 Routine “Cyclic” Planned Maintenance

Cyclic maintenance activities are undertaken at set frequencies to ensure the service standard is achieved. include gully emptying and verge maintenance. The frequencies at which Cyclic Maintenance activities are conducted are shown below.

The only cycle maintenance activity undertaken is gully cleansing as shown below:

Activity	Frequency
Gully Cleansing	
Standard Gullies	12 months and 15 months

There are currently no cyclic maintenance activities undertaken for footways, lighting or structures assets.

13 Highway Works Scheme Prioritisation Regime

Assets that are identified as in need of substantial repair or replacement are included on a works programme of potential schemes. A prioritisation regime is used to identify which of the proposed schemes should be undertaken during the following year/s.

Scheme Prioritisation

Team Leader (Street Scene) is responsible for maintaining a 3 year rolling programme of schemes.

Schemes are identified by inspectors and analysing SCANNER information.

A prioritisation value is obtained for each scheme using the following factors:

Classification of Road

SCANNER

Onsite Condition Assessment

Third Party Claims

Customer Complaints

Bus Route

Previous Maintenance Costs

Appendix A: Asset Hierarchy Categories

Carriageways	
Category	Description (approximate daily traffic volume)
CHSR	Route enabling travel between locations of regional significance (NA, Strategic routes are identified based on their importance regionally rather than their traffic volume)
CH1	Travel between locations (traffic volume 10,000 - 20,000)
CH2	Travel between locations (5,000 - 10,000)
CH3	Travel between locations (1,000 - 5,000)
CH4	Access to housing (200 – 1,000)
CH5	Access to properties (housing and farms) (< 200)

Structures	
Category	Description
Vital Structure	A structure that is vital to the network i.e. if restricted or out of service it would cause a very significant adverse effect such as major traffic delays and a lengthy diversion route with the potential to affect other important services or community severance
Important Structure	A structure that is important to the functioning of the network, i.e. if restricted out of service would have an adverse effect on the operation of the network
Standard Structure	All other structures

Street Lighting Hierarchy

There is no hierarchy for street lighting assets managed by Vale of Glamorgan Council. All assets are inspected at the same frequency and repaired within the same response time

Details of the hierarchy allocated to each individual asset are held in the Confirm asset management system.

Appendix C: Defect Types and Intervention Levels

The following is a list of defect types and intervention levels used within the authority.

Critical Defects

Asset Type	Defect	Magnitude	Hierarchy	Road Character	Response Time
All	A situation where the inspecting officer considers the risk to safety high enough to require immediate action, typically include items such as; Carriageway / footway / cycleway collapse with high risk of accidents / loss of control; Critically unstable overhead wires, trees or structures; Exposed live wiring; Isolated standing water with high risk of loss of control; Missing or seriously defective ironwork with high probability of injury to highway users.	Not Applicable. Critical defects are defined by their potential to cause immediate injury not by defect size	All	Not Applicable. Critical defects are defined by their potential to cause immediate injury not by defect size	2 hours

the response time for a critical defect is the time until the site is made safe, this may be achieved by closing all or part of the road or coning off the hazard. In some instance a repair may be immediately possible but in many instances the repair will occur later

Safety Defects

Asset Type	Defect Type	Hierarchy	Dimensional Criteria		CSSW National Minimum Standard		Comparison with CSSW Min Std and Comment
			Depth/Height	Extent	Depth/Height	Extent	
Carriageways	Pothole	All	>40mm	Maximum horizontal dimension greater than 150mm	> 50mm	Maximum horizontal dimension greater than 150mm	Exceeds Depth / Height
	Protrusion	All	>40mm	Maximum horizontal dimension greater than 150mm	>75mm	Maximum horizontal dimension greater than 150mm	Exceeds Depth / Height
Footways	Pothole	All	>20mm	Maximum horizontal dimension greater than 75mm	> 40mm	Maximum horizontal dimension greater than 75mm	Exceeds Depth / Height

The standards in the preceding tables are a guide only. Reference should be made to the CSSW Highway Inspection Defect Recording Manual . It is an essential part of the authorities' inspection regimes that inspectors are appropriately trained. In doing so inspectors are able to complement application of the standard with their own assessment of individual defects, which may result in a different response time.

Street Lighting

The defect types and response times for street lighting faults are:

Category of Fault	Response Time
Routine	10 working days
Illuminated Regulatory Sign	
Three or more Lighting Units	
Other Routine Jobs	
Non Routine	10 working days
Illuminated Regulatory Sign	
Other Routine Jobs	
Emergency	
To make safe potential electrical danger	2 hours
Temporary repair of traffic bollards	2 working days

Appendix B: Competency Requirements

CSS Wales manages a competency confirmation scheme. The scheme has been used to enable the competency of authority staff in key areas to be confirmed. The scheme covers the following areas:

- Visual Condition Assessment (Carriageways)
- Visual Condition Assessment (Footways)
- Bridge /Structures Inspection
- Highway Inspections

Those who are accredited by these schemes are listed below/state location where registers are held.

Appendix C: Extract from highways Act 1980

As the highway authority the council is subject to legal requirements that include:

The 1980 Highways Act,

- Section 41; to maintain those roads, footways and cycle tracks that are '*Highways maintainable at public expense*'.
- Section 58 ; states that a statutory defence against third party claims is provided where the Highway Authority can establish that reasonable care has been taken to 'secure that the part of the highway to which the action relates' to a level commensurate with the volume of ordinary traffic such that it 'was not dangerous to traffic'.

Section 58 : Special defence in action against a highway authority for damages for non-repair of highway.

(1) In an action against a highway authority in respect of damage resulting from their failure to maintain a highway maintainable at the public expense it is a defence (without prejudice to any other defence or the application of the law relating to contributory negligence) to prove that the authority had taken such care as in all the circumstances was reasonably required to secure that the part of the highway to which the action relates was not dangerous for traffic.

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

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

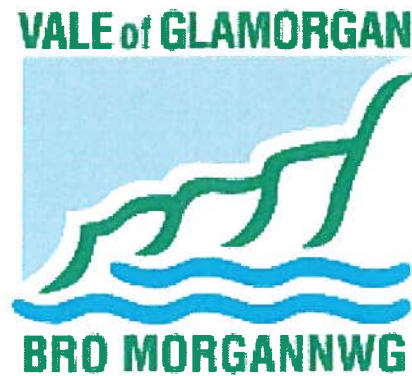
but for the purposes of such a defence it is not relevant to prove that the highway authority had arranged for a competent person to carry out or supervise the maintenance of the part of the highway to which the action relates unless it is also proved that the authority had given him proper instructions with regard to the maintenance of the highway and that he had carried out the instructions.

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The New Roads & Street Works Act 1991 imparts a duty on Statutory Undertakers to maintain their apparatus in the Highway, but it has been established in Case Law that they can rely on the Highway Authority's Safety Inspection regime to some extent when defending Claims.

The Council can avoid being held jointly liable for defective apparatus by issuing a Section 81 Notice - New Roads & Street Works Act 1991 to the Utility Company whenever a defect is identified by the Authority within the Highway.



Vale of Glamorgan Council

**Directorate of Visible Services
and Housing**

Highways and Engineering

**Highway Safety Inspection
Manual**

Guidance for Highway Safety Inspections

Directorate of Highways and Engineering Highways Safety Inspection Manual

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2.0. Introduction of the Policy

Section 58 of the Highways Act (1980) states:

(1). In an action against a highway authority in respect of damage resulting from their failure to maintain a highway maintainable at public expense it is a defence (without prejudice to any other defence or the application of the law relating to contributory negligence) to prove that the authority had taken such care as in all the circumstances was reasonably required to secure that the part of the highway to which the action relates was not dangerous to traffic.

- 2.1 The establishment of an effective regime of inspection, assessment and recording is the most crucial component of effective highway maintenance. The safety inspection regime provides the basic information for addressing the first core objective of highway maintenance and network safety.
- 2.2 This manual has been derived to encourage an efficient and consistent approach in the collection, processing and recording of highway inventory in line with the principles of 'Well Maintained Highways: Code of Practice for Highway Maintenance Management 2005 (CoP)' (Updated 18th September 2013). This guidance for safety inspections has been modified in the light of particular local circumstances and the relative risks and consequences associated with these. The characteristics of the regime, including the frequency of inspections, items to be recorded and the nature of the response are defined within this Safety Inspection Manual, which is set in context of the Vale of Glamorgan Council's overall Policy and maintenance strategy.

3.0 Purpose of Safety Inspection

- 3.1 The main purposes of highway maintenance is to maintain the highway network for the safe and convenient movement of it's users. Safety inspections are designed to identify all defects that are likely to cause danger or serious inconvenience to users of the network. Such defects include those that require urgent attention as well as those where the locations and sizes are as such that longer periods of response and action are appropriate.
- 3.2 The safety inspections regime forms a key aspect of the Vale of Glamorgan Councils strategy for managing liability and risk.
- 3.3 The Vale of Glamorgan Council uses its Safety Inspection process, monitoring information and a regime of proactive maintenance to reduce risk and provide the public with a safer highway network. Further, if compliance with the Safety Inspection process permits, Section 58 of the Highways Act (1980) may be used in defence of claims against the Highway Authority. By virtue of the Highways Act 1980 the Vale of Glamorgan Council are able to repudiate a claim relating to alleged injury, loss or damage if it can prove that:
- It had in place adequate policies and procedures to maintain the Highway
 - The policies and procedures were being implemented effectively

4.0 Definitions

- 4.1 Unless otherwise stated, terms used in this manual are as defined in the 'Well maintained Highways: Code of Practice for Highway Maintenance Management 2005 (CoP).
-

4.2 The code defines defects in two categories:

- Category 1: Those that require prompt attention because they represent an immediate or imminent hazard or because there is a risk of short term structural deterioration.
- Category 2: All other defects

4.3 Detailed guidance about the level of response to defects is contained in Section 5.0 and Appendix * of this document, however, in general the following applies:

- Category 1 defects shall be made safe or repaired at the time of the inspection, if reasonably practicable. If it is not possible to correct or make safe the defect at the time of inspection, repairs of a permanent or temporary nature should be carried out as soon as possible and in any case by the end of the next working day. Permanent repairs should be completed within 28 days.
- Category 2 defects are those which, following a risk assessment are deemed not to represent an imminent or immediate danger or hazard or at risk of short term structural deterioration. Such defects may have safety implications, but are more likely to have a serviceability or sustainability implications.

5.0 Frequency and Methodology of Highway Safety Inspections

5.1 The Vale of Glamorgan Council has set out its own standards for the frequency of its Highway Safety Inspections and is determined in accordance with the categories within the network hierarchy and in conjunction with The CoP frequencies for Safety Inspections and is shown in table A on the following page:

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Feature	Category	Frequency
Carriageway	Strategic Route	12 x Annually
	Main Distributor	12 x Annually
	Secondary Distributor	4 x Annually
	Link Road	4 x Annually
	Local Access Road	2 x Annually
Footway	Prestige Walking Zones	12 x Annually
	Primary Walking Routes	12 x Annually
	Secondary Walking Routes	4 x Annually
	Link Footways	2 x Annually
	Local Access Footways	2 x Annually

Table A

- 5.2 Safety Inspections are designed to identify all defects likely to create a danger or serious inconvenience to the users of the network. The risk of the danger is assessed on site and the defect is then categorised as either Category 1 or 2 and the appropriate response time is then allocated based on the guidelines according to the CoP.
- 5.3 Defects that are reported by the Public will be inspected within 5 working days and the appropriate level of response will be determined using the guidelines set out within this document.
- 5.4 Section 81 of the New Roads and Streetworks Act 1991 places a duty on statutory undertakers (utilities) to maintain their apparatus to the reasonable satisfaction of the Highway Authority. When an inspection identifies a particular piece of apparatus that is deemed to be unsafe and requiring attention, notification will be sent to the appropriate party via the Eton Noticing System requiring them to carry out remedial action under Section 81 of this Act. This notification should detail the apparatus and its location complete with maps, postcode and USRN number.
-

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- 5.5 If remedial action is not carried out within a reasonable timescale the Highway Authority may carry out repairs themselves and recover all costs incurred.

6.0 Safety Inspections of Highway Trees

- 6.1 All trees within falling distance of the highway are deemed 'highway trees'. A basic inspection of all highway trees that can be seen from the carriageway is included in the routine Safety inspections. Any defect or feature likely to cause an obvious danger by encroachment, obstructive visibility, damage, ill health or trip hazard is recorded and the appropriate action taken. Under section 154 of the Highways Act 1980 the Vale of Glamorgan Council deals by means of Notice in relation to hedges, trees and shrubs growing on adjacent land which overhang the highway. Details of the Council's Tree inspection Policy is attached as Appendix 1

7.0 Degree of deficiency and nature of response

- 7.1 All defects are risk assessed based upon hierarchy, intervention level, response time, likelihood of predictable deterioration and whether the repair is to be of a temporary or permanent nature.
- 7.2 Defects that represent an immediate or imminent hazard/danger shall be repaired or made safe at the time of the inspection. If it is not possible to repair or make safe, repairs of a temporary or permanent nature shall be carried out by the end of the next working day.
- 7.3 All other defects which, following a risk assessment are deemed not to represent an imminent or immediate hazard/danger shall be repaired within the appropriate timescales.

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7.4 On site judgement will need to take into account particular circumstances such as the defects' location and where necessary the Inspector may increase the reaction time for a defect. If a defect is not listed the Inspector will carry out a risk assessment to determine the appropriate response, taking into account the location of the defect.

7.5 Table: Inspection and Repair standards:

Maintenance Category	Inspection Interval Months	Defect Type Intervention threshold (depth in Millimetres)	
		Potholes	Protrusions
Carriageway			
Strategic 'A' roads	12 x Annually	40mm	40mm
Main Distributor 'B' roads	12 x Annually	40mm	40mm
Secondary Distributor	4 x Annually	40mm	40mm
Link Road	4 x Annually	40mm	40mm
Local Access Roads	2 x Annually	40mm	40mm
Footways			
Prestige walking zones	12x Annually		20mm
Primary Walking route	12 x Annually		20mm
Secondary Walking route	4 x Annually		20mm
Link Footways	2 x Annually		20mm
Local Access Footways	2 x Annually		20mm

8.0 Recording and Monitoring of Information

- 8.1 All information obtained from safety inspections together with the nature of response including 'no defects found' shall be recorded and all such data shall be able to be reviewed in conjunction with all other survey information. This information shall be stored electronically. Service requests, complaints and reports from third parties shall also be recorded together with the nature of response including 'no defects found'.
- 8.2 All inspections shall record time of the inspection, weather conditions, any unusual circumstances and the person conducting the inspection.

9.0 Health, Safety and Training

- 9.1 Highway Safety inspections require concentration on the identification and recording of defects, but not at the expense of the safety of the inspector or road users.
- 9.2 Health and Safety risk assessments and safe systems of work must cover all inspection activities. These risk assessments and safe systems of work must be reviewed on a regular basis to ensure that new or amended legislation or defect repair methods are passed on to the appropriate personnel.

Appendix 3: Highway Risk Review, 2020

1 Review of Risk Data

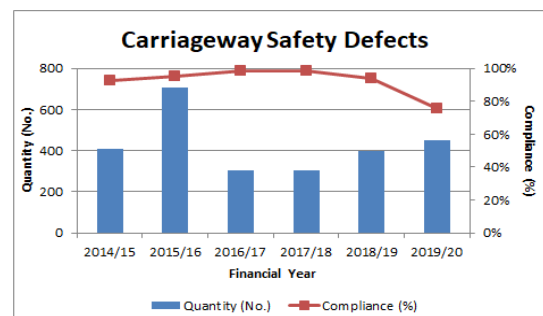
To inform the review of hierarchy, inspection and repair regime data relating the risks associated with the maintenance of the highway asset has been collated. This data has been reviewed to determine if there are an indications of elements of the services that present significant risk to users and where the data allows to determine if the data implies these risks are being controlled by current management methods, i.e. the existing inspection and repair regimes).

Safety Defects

The council aims to make safe or repair defects that are considered a hazard to users within 24 hrs. The number of these and performance in repairing them provides a view on the extent to which users experience safety defects.

Approximately 400 carriageway safety defects are recorded each year. This figure compares favourably to other authorities in Wales.

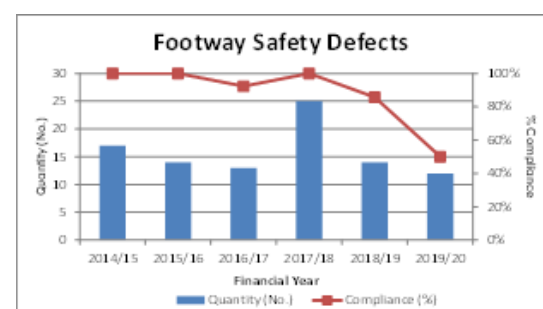
The level of compliance in completing repair of carriageway safety defects within response times was 80% last year. Prior to this it was consistently above 90%.



- The level of carriageway safety defect experienced appears to be being controlled with the defects that are recorded predominantly promptly repaired (with the exception of last year).

Approximately 15 footway safety defects are recorded each year. This figure compares favourably to other authorities in Wales to some authorities.

The level of compliance in completing repair of carriageway safety defects within response times was 50% last year. Prior to this it was consistently above 90%.



- The level of footway safety defect experienced is low and appears to be being controlled. The defects that are recorded are predominantly promptly repaired
- ✓ **Current methods are controlling user's exposure to hazardous defects**
- ✓ **Last year we have encountered problems with external contractor performance due to ongoing resource issues and the Highway Maintenance team partake in weekly meetings with the contractor in efforts to control productivity.**

Maintenance Liability

In addition to safety defects other maintenance works are required to ensure that condition does not deteriorate to such that a glut of safety defects occurs and/or a backlog of maintenance builds up.

Maintenance Defects

Defects that meet the council's criteria for repair are currently targeted for repair within 15 working days.

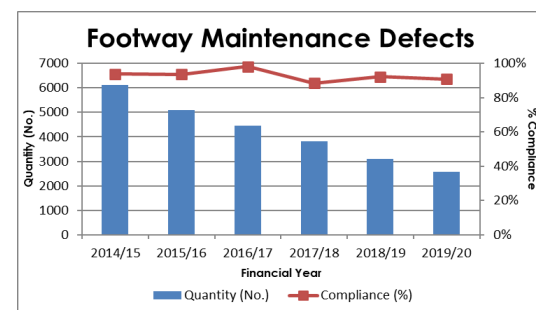
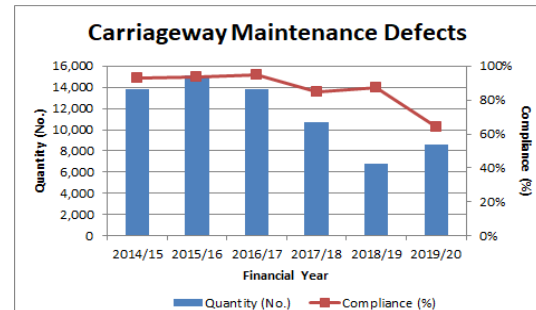
A substantial number of carriageway and footway maintenance defect are repaired annually.

The number of repairs required each year is however reducing as is shown in the graphs.

This is believed to be partly due to the councils "Big Fill" initiative which has been carrying out repairs of all actionable defects in areas around the borough over the last 5 years.

The level of repair is however is still substantial. (.8,000 pa)

Performance in completing repairs within the targeted response time has been consistently high except for 2018/19 for carriageway defects where only 64% were completed on time.

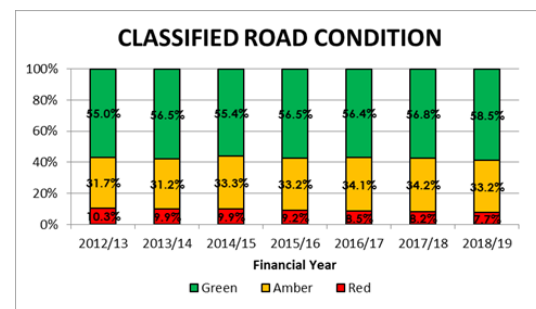


Measured Condition (Condition Survey Results)

The condition of classified roads (A,B and C class roads) is measured using a machine.

Survey results for the classified roads indicate that the classified roads in the Vale have been maintained at approximately the same condition for the last 7 years.

This has been achieved in part through the use of grant funding supplied by Welsh Government.



The condition of unclassified roads is not currently measured. Unclassified roads include lightly trafficked rural lane and residential streets. They make up 57% of the network.

The condition of footways is not currently measured.

- The condition of unclassified road and of footways may be deteriorating. This may not be currently spawning a glut of safety defects but this could eventuate over time, especially on carriageways where a harsh winter is likely to create significant increases in defects in aged surfaces.
- This risk cannot currently be evaluated due to lack of data.

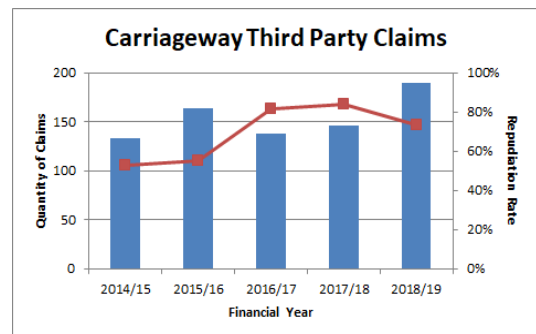
Structures

The condition of structures (bridges and walls etc) is measured via condition rating undertaken during a regime of inspections. These inspections are used to identify what maintenance each structure needs. Structures rarely have “safety defects” except for where a vehicle impacts and structure and a check is made that the strength of the structure has not been impacted by any damaged caused. Where inspection reveals weakness in structures these can be managed by the imposition of restrictions on use (such as weight restrictions) or via regime of monitoring.

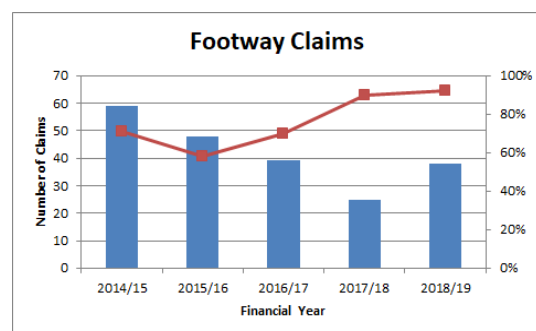
3rd Party Claims

3rd party claims are made when a user believes they have suffered loss as a result of the councils failure to meet the obligations as the highway authority to maintain the asset. Claims can be refuted by the council demonstrating that it had an appropriate regime of inspection and repair in place and that the regime was followed. The receipt of claims does not in itself confer that the council has failed however tracking the number of claims and result of them does indicate if the councils process are appropriate when tested in court.

The quantity of carriageway claims is increasing with 190 received in 2018/19. It is concerning that national data shows most authorities receive less than 100 claims with Cardiff the only authority with more claims in 2018/19. The council repudiated 74% of their claims in 2018/19 which is also below the national average. The cost of claims is also trending downwards with £11,000 paid out in 2018/19 which is low compared to other authorities.



The level of claims received for footways is trending downwards with 38 received in 2018/19. In the last two years the repudiation rate has been above 89% and the value of payouts below £11,000. These results compare favourably with other authorities within Wales.



Summary of Risk Data Review

The review of risk data indicates that the major risks to highway users are being controlled by current practices. There are no trends in the data that would indicate a need for significant changes in current practices. It is noted that some elements cannot currently be evaluated due to lack of data and consequently plans to collect condition data for unclassified road and for footways are now in hand. Future reviews will be better informed when this data is available.

Appendix 4 - Carriageway and Footway Hierarchy

Carriageway Hierarchy		
Vale of Glamorgan	CSSW	Traffic Volume Band (AADF)
Cat 2: Strategic	CHSR	Based on local importance rather than traffic flow but often in the range >20,000 [30,000 for calculations]
Cat 3a: Main Distributor	CH1	10,000 to 20,000
Cat 3b: Secondary Distributor	CH2	5,000 - 10,000
Cat 4a: Link Road	CH3	1,000 - 5,000
Cat 4b: Local Access Road	CH4	200 – 1000
	CH5	< 200

Footway Hierarchy		
Vale of Glamorgan	CSSW	Footfall Level (AADF)
Cat 1a: Prestige Walking Zones	FHVHU#	> 10,000
Cat 1: Primary Walking Routes	FH1	5,000 - 10,000
Cat 2: Secondary Walking Routes	FH2	1,000 - 5,000
Cat 3: Link Footways	FH3	500 - 1,000
Cat 4: Local Access Footways	FH4	< 500
	FH5	< 100

##heavily used pedestrian areas within city centres e.g., Cardiff, Swansea, and Newport

**Appendix 5
Carriageway**

Routine Inspection Frequencies			
Carriageway Hierarchy	Existing VoGC Inspection Interval	CSSW Recommended Minimum	Comparison VoGC vs. CSSW Min Standard
CHSR	Monthly	Monthly	Meets the CSSW minimum standard.
CH1 <i>(Such as A48 Culverhouse Cross or Corntown Road Ewenny)</i>	Monthly	Monthly	Meets the CSSW minimum standard.
CH2 <i>(Such as Ruthin Road or Cog Road)</i>	Every 3 months	Every 3 months	Meets the CSSW minimum standard
CH3 <i>(Such as Alexandra Crescent or High St Penarth)</i>	Every 3 months	Every 6 months	Exceeds the CSSW minimum standard
CH4 <i>(Such as Castle Drive Dinas Powys)</i>	Every 6 months	Annually (poor or unknown condition)	Exceeds the CSSW minimum standard.
		Every 2 years (good condition)	Exceeds the CSSW minimum standard
CH5	Every 6 months	Reactive	Exceeds the CSSW minimum standard

Footway

Routine Inspection Frequencies			
Footway Hierarchy	VoGC Inspection Frequency	CSSW Recommended Minimum	Comparison
FHVHU	Monthly	Monthly	Meets the CSSW minimum standard.
FH1	Monthly	Monthly	Meets the CSSW minimum standard.
FH2	Every 3 months	Every 3 months	Meets the CSSW minimum standard
FH3	Every 6 months	Every 6 months	Meets the CSSW minimum standard
FH4	Every 6 months	Annually (poor or unknown condition)	Exceeds the CSSW minimum standard
		Every 2 years (good condition)	Exceeds the CSSW minimum standard
FH5		Reactive	Exceeds the CSSW minimum standard

Appendix 6 - Defect Criteria – Response Times

Response Times: Carriageways

Defect Categories	Description	Response Times		VoGC vs CSSW Minimum Standard
		Existing VoGC Standard	CSSW Minimum Standard	
Critical Defect	A situation where the inspecting officer considers the risk to safety high enough to require immediate action, e.g. collapsed cellar, missing utility cover, fallen tree, unprotected opening, Requiring an immediate response to make the site safe	2 Hours#	2 Hours#	Meets
Safety Defect	Defects that pose an imminent risk of injury to road users, Requiring a response as soon as possible to remove a potential risk of injury to users	24 Hours	By End of Next Working Day (CHSR, CH1, CH2) Within 5 Working Days (CH3, CH4)	Exceeds Exceeds
Maintenance Defect	Defects that warrant treatment to prevent them deteriorating into a safety defect prior to the next scheduled inspection, Requiring a response to prevent them becoming a safety defect	15 Working Days	1 month (CHSR, CH1, CH2) 3 months (CH3, CH4)	Exceeds Exceeds

Response Times: Footways

Defect Categories	Description	Response Times		VoGC vs CSSW Minimum Standard
		Existing VoGC Standard	CSSW Minimum Standard	
Critical Defect	A situation where the inspecting officer considers the risk to safety high enough to require immediate action, e.g. collapsed cellar, missing utility cover, fallen tree, unprotected opening, Requiring an immediate response to make the site safe	2 Hours#	2 Hours#	Meets
Safety Defect	Defects that pose an imminent risk of injury to road users, Requiring a response as soon as possible to remove a potential risk of injury to users	24 Hours	By End of Next Working Day (FHVHU, FH1, FH2) Within 15 Working Days (FH3, FH4, FH5)	Exceeds Exceeds
Maintenance Defect	Defects that warrant treatment to prevent them deteriorating into a safety defect prior to the next scheduled inspection, Requiring a response to prevent them becoming a safety defect	15 Working Days	1 month (FHVHU, FH1, FH2) No set response time (FH3, FH4, FH5)	Meets Exceeds

Appendix 7 - Defect Criteria - Dimensions

Critical Defects

Asset Type	Defect Type	Hierarchy	Dimensional Criteria	
			Depth/Height	Extent
All	Examples: Carriageway / footway / cycleway collapse with high risk of accidents / loss of control; Critically unstable overhead wires, trees or structures; Exposed live wiring; Isolated standing water with high risk of loss of control; Missing or seriously defective ironwork with high probability of injury to highway users	All	Not Applicable. Critical defects are defined by their potential to cause immediate injury not by defect size.	Not Applicable. Critical defects are defined by their potential to cause immediate injury not by defect size.

the response time for a critical defect is the time until the site is made safe, this may be achieved by closing all or part of the road or coning off the hazard. In some instance a repair may be immediately possible but in many instances the repair will occur later.

Safety Defects




		CSSW Minimum Standard		VoGC Existing Standard		VoGC vs CSSW Min Standard
Asset Type	Defect Type	Hierarchy	Dimensional Criteria		Dimensional Criteria	
			Depth/Height	Extent	Depth/Height	Extent
Carriageways	Pothole	CHSR, CH1 and CH2	> 50mm	Maximum horizontal dimension greater than 150mm	>40mm	Exceeds
	Pothole	CH3, CH4 and CH5**	>75mm	Maximum horizontal dimension greater than 150mm		
Footways	Pothole, trip, rocking slab	All	> 40mm	Maximum horizontal dimension greater than 75mm	>20mm	Exceeds

**Defect triggers on CH5 roads are to be considered an investigatory level.

Maintenance Defects

	CSSW Minimum Standard				VoGC Existing Standard		VoGC vs CSSW Min Standard
	Defect Type	Hierarchy	ECBC CSSW Mins Standard		Dimensional Criteria		
			Depth/Height	Extent	Depth/Height	Extent	
Carriageways	Pothole	CHSR, CH1 and CH2	> 40mm	Maximum horizontal dimension greater than 150mm	> 40mm		Meets
	Pothole	CH3, CH4 and CH5**	> 50 mm	Maximum horizontal dimension greater than 150mm	> 40mm		Exceeds
	Crowning / Depression	All	> 100mm	< 2M Length	No stated standard		
Footways	Pothole, trip or rocking slab	All	25mm - 40mm	Maximum horizontal dimension greater than 75mm	> 20 mm		Exceeds
	Badly cracked or damaged ironwork	Any		N/A	No stated standard		

****Defect triggers on CH5 roads are to be considered an investigatory level.

 			
Highway Asset Management Planning: Recommended Practices			
RP1 Highway Asset Risk Review			
Queries and Feedback		Any queries or feedback on this workbook should be posted on khub _ CSSW Highway Asset Management Project _ Forum https://khub.net/group/cssw-highway-asset-management-project/forum	
Use		This spreadsheet has been produced under the CSSW Highway Asset Management Project. It is provided to be used by Welsh Local Authorities and should not be passed on to any third parties as intellectual property rights prevail.	
Version Number	Amendments Made:	Issue Date	
2019 v1	Nil - Original	May-19	
2019 v2	References to annual review removed along with amendments to match CSSW final approved method	Jul-19	
3	Renamed from 4RA to RP1 and Formatting Updated	Oct-19	
1, Final	Final Version issued as Version 1 of RP1 to match number system in 2019 recommended practices	Oct-19	

Tab 2 – Risk Review Record

0. Highway Asset Risk Review: Record of Completion

<p>Complete this sheet to confirm that the review has been undertaken by completing the yellow cells. You can go to the relevant sheets by click on the cells in col. E</p>		<p>Authority Vale of Glamorgan Council</p>	<p>Completed By Nathan Thomas & Jo Dovey</p>			
		<p>Year 2019</p>	<p>Position Neighbourhood Manager & Team Leader (Inspections)</p>			
1	Review Network Hierarchies	<p>The hierarchy should be reviewed and updated when there are changes to the asset (e.g. new or upgraded assets) or changes in its use (e.g. change in traffic volumes)</p>	<p>Hierarchy</p>	<p>Date Updated</p>	<p>Comment</p>	<p>Location of Definitive Hierarchy</p>
			<p>Carriageway</p>	2019		
			<p>Footway</p>	2019		
			<p>Structures</p>		Does not fall within HM	
			<p>Street Lighting</p>	2019		
<p>Traffic Management</p>	2019					
2	Collate and Review Risk Data	<p>Data relating to risks should be collated and reviewed</p>	<p>Risk Data</p>	<p>Date Updated</p>	<p>Comment</p>	
			<p>Risk Data Summary</p>	2019		
			<p>Existing Inspection Regime</p>	2019		
			<p>Existing Repair Regime</p>	2019		
3	Update and Review Risk Assessments	<p>Inspection Regime</p>	<p>Risk Assessments</p>	<p>Date Updated</p>	<p>Comment</p>	<p>Location of Record of Inspection and Repair Regime</p>
			<p>Cway Inspection Regime</p>	2019		
			<p>Fway Inspection Regime</p>	2019		
			<p>Structures Inspection Regime</p>		Confirm the 6STR has been updated	
			<p>Cway Repair Regime</p>	2019		
<p>Fway Repair Regime</p>	2019					
4	Reporting this Review	<p>Report the results of this review to Council</p>	<p>Action</p>	<p>Date</p>	<p>Comment</p>	
			<p>Record the Risk Review Results</p>	2019		
			<p>Report the outcome of the risk review to council using ASRs</p>	2019		

Location of Definitive Hierarchy	
Highway Maintenance server	

Location of Record of Inspection and Repair Regime	Where is the inspection and repair regime recorded ?
Highway Maintenance server inspection bears saved within Mayrise and new system Confirm	

Tab 3 – Risk Review Results

z. Highway Asset Risk Review Results							
Complete this sheet with the results of the risk review undertaken			Authority	Vale of Glamorgan Council		Completed By	Nathan Thomas
			Year	2019		Position	Highway Maintenance Manager
Have any Changes been made to:			C-way	F-Way	Structures	Street Lighting	Traffic Signals
a.	Hierarchy		Yes	No	No	No	No
b.	Inspection Regime		Yes	No	No	No	No
c.	Repair Regime		No	No	No	No	No
d.	Budgets		No	No	No	No	No
Changes to Hierarchy (Complete Relevant Columns)							
USRN	Road Name	Asset Number (Road, Footway, Structure etc.)	Section Number	Existing Hierarchy	Proposed Hierarchy	Reason for Changed Hierarchy	
41502540	THE SQUARE ST ATHANS	U	0	CH4	CH2	Increase in inspections required	
41502545	ST BRIDES ROAD	B	B4265	CH2	CH1	Heavy Traffic Counts	
41502552	ST ATHAN ROAD	U	0	CH4	CH2	Increase in inspections required	
41502583	RUTHIN ROAD	U	0	CH4	CH2	Increase in inspections required	
41502639	B4265 WEST ABERTHAW	B	B4265	CH2	CH1	Increase in inspections required	
41500773	QUEEN STREET BARRY	U	0	CH4	CH3	Increase in inspections required	
41500017	ANDREW ROAD	U	0	CH4	CH3	Increase in inspections required	
41500090	BROADWAY COWBRIDGE	U	0	CH4	CH3	Increase in inspections required	
41500114	BUTTRILLS ROAD	U	0	CH4	CH2	Increase in inspections required	
41500212	COG ROAD	U	0	CH4	CH2	Housing Development nearby	
41500257	COWBRIDGE ROAD	U	A4222	CH4	CH1	Increase in inspections required	
41500268	CROSS COMMON ROAD DYNAS POWYS	U	0	CH4	CH3	Increase in inspections required	
41500293	DINAS ROAD	U	0	CH4	CH3	Increase in inspections required	
41500395	GIBBET'S HILL	A	A4222	CH1	CH2	Decrease in inspection required	
41500400	GILESTON ROAD	U	0	CH4	CH2	Increase in inspections required	
41500462	HAYES ROAD	U	0	CH4	CH2	Increase in inspections required	
41500469	HEOL DEWI SANT	U	0	CH4	CH3	Increase in inspections required	
41500553	LAVERNOCK ROAD	B	B4267	CH2	CH1	Increase in inspections required	
41500556	LECKWITH ROAD	B	B4267	CH2	CH1	Increase in inspections required	
41500566	LITTLE MOORS HILL	U	0	CH4	CH3	Increase in inspections required	

Continued.....

41500571	LLANMAES ROAD	U		0 CH4	CH2	Increase in inspections required
41500613	MARINE PARADE	U		0 CH4	CH2	required
41500624	MEGGIT ROAD	U		0 CH4	CH2	Increase in inspections required
41500631	MERTHYR DYFAN ROAD	U		0 CH4	CH2	Increase in inspections required
41500739	PLASSEY STREET	U		0 CH4	CH1	Increase in inspections required
41500778	RAISDALE ROAD	U		0 CH4	CH2	Same as Marine Parade
41500787	REDLANDS ROAD	B	B4267	CH2	CH1	Increase in inspections required
41500799	ROBINS LANE	U		0 CH4	CH3	Increase in inspections required
41500803	ROMILLY ROAD	U		0 CH4	CH3	Increase in inspections required
41500839	SOUTH ROAD	B	B4267	CH2	CH1	Increase in inspections required
41500852	ST AUGUSTINE'S CRESCENT	U		0 CH4	CH3	Increase in inspections required
41500857	ST BRIDE'S WAY BARRY	U		0 CH4	CH2	Lots of business activity so increase
41500880	ST PAUL'S AVENUE BARRY	U		0 CH4	CH2	Increase in inspections required
41500897	STATION STREET	U		0 CH4	CH3	Increase in inspections required
41500955	TRINITY STREET	U		0 CH4	CH2	Increase in inspections required
41500964	TYNEWYDD ROAD	U		0 CH4	CH2	Increase in inspections required
41501022	WINDSOR ROAD	U		0 CH4	CH1	Increase in inspections required
41501129	CLIFF ROAD	U		0 CH4	CH2	Consistent with adjacent sections
41501143	COWBRIDGE STREET	U		0 CH4	CH2	Increase in inspections required
41501471	BEACH ROAD	U		0 CH4	CH3	Increase in inspections required
41501529	OLD PORT ROAD	U		0 CH4	CH3	Increase in inspections required
41501584	FONTGARY ROAD JCT BURTON BRIDGE TO BURTON TERRACE	U		0 CH4	CH2	Increase in inspections required
41501588	LANE - LOGWOOD - JCT A48 TO PETERSTON SUPER ELY	U		0 CH4	CH1	Increase in inspections required
41501621	TERRA NOVA WAY	U		0 CH4	CH3	Increase in inspections required
41501652	LANE - CARMEL CHAPEL TO LLANCFARFAN BOUNDARY VIA CAEMAEN FARM	U		0 CH4	CH1	Increase in inspections required
41501732	FFORDD Y MILENIWM	C		0 CH3	CH1	Increase in inspections required
41501767	TREM ECHNI	U		0 CH4	CH3	Increase in inspections required
41501768	PENTIR Y DE	U		0 CH4	CH3	Increase in inspections required
41501823	LANE - JCT B4265 TO WEST ABERTHAW FARM	B	B4265	CH2	CH3	Farm Vehicles
41501859	EGLWYS BREWIS ROAD	U		0 CH4	CH2	Increase in inspections required
41501860	EGLWYS BREWIS ROAD JCT B4265 TO JCT ST ATHAN ROAD	U		0 CH4	CH2	Increase in inspections required
41502055	B4268 LLYSWORNEY TO JUNCTION NASH MANOR	B	B4268	CH2	CH1	Increase in inspections required
41502058	LANE - JCT SIGINGSTONE TO JCT LLAMIHANGEL	U		0 CH4	CH3	Increase in inspections required
41502093	PENDOYLAN ROAD	U		0 CH4	CH1	Increase in inspections required
41502096	LANE - JCT HENSOL ROAD AT LLANERCH TO TREDODRIDGE VIA TY WITH NEWYDD STABLES	U		0 CH4	CH3	Increase in inspections required
41502118	LANE - JCT AUBREY ARMS TO JCT AT A48 VIA LLANTRITHYD DEER PARK	U		0 CH4	CH3	Increase in inspections required
41502225	B4524 OGMORE ROAD AT OGMORE	B	B4524	CH2	CH1	Seasonal - Summer
41502226	B4524 SOUTHERNDOWN TO MAIN ROAD	B	B4524	CH2	CH1	Seasonal - Summer
41502358	COLLEGE ROAD	U		0 CH4	CH2	Increase in inspections required
41502359	B4265 GILESTON	B	B4265	CH2	CH1	Increase in inspections required
41502368	EWENNY ROAD	B	B4265	CH2	CH1	Increase in inspections required

Tab 4 – Carriageway Hierarchy

a. Enter network data in here from the street gazeteer						Initial Proposed Road Hierarchy will populate here based on road class	c. Review assumed traffic flow band, does it appear a reasonable assumption?		Insert traffic count figures used. These may be actual or extrapolated or estimated	A recommendation as to whether a review should be undertaken will populate here based on the primary	Insert the Road Hierarchy you have decided upon based on your review of secondary considerations	The Final Road Hierarchy will populate here based on initial road class and the reviews undertaken	Any additional comments that have a bearing on the hierarchy or notes to carry through to the setting of inspection regime etc.
USRN	Road Name	Road Number	Section Number	Speed Limit (mph)	1. Initial Proposed	Primary Consideration: Traffic Volumes/Use				Secondary Consideration			
41500773	QUEEN STREET BARRY	U	0	30	CH4	200 - 1000	No	2458	Yes	CH3	CH3		
41500012	ALEXANDRA CRESCENT	U	0	30	CH4	200 - 1000	Yes	900	No	CH3	CH3		
41500017	ANDREW ROAD	U	0	30	CH4	200 - 1000	No	2449	Yes	CH3	CH3		
41500090	BROADWAY COWBRIDGE	U	0	30	CH4	200 - 1000	No	1084	Yes	CH3	CH3		
41500268	CROSS COMMON ROAD DYNAS POW	U	0	30	CH4	200 - 1000	No	2960	Yes	CH3	CH3		
41500293	DINAS ROAD	U	0	30	CH4	200 - 1000	No	5606	Yes	CH3	CH3		
41500469	HEOL DEWI SANT	U	0	30	CH4	200 - 1000	No	3397	Yes	CH3	CH3		
41500490	HIGH STREET PENARTH	U			CH4	200 - 1000			No	CH3	CH3		
41500566	LITTLE MOORS HILL	U	0	30	CH4	200 - 1000	No	3494	Yes	CH3	CH3		
41500799	ROBINS LANE	U	0	30	CH4	200 - 1000	No	4623	Yes	CH3	CH3		
41500803	ROMILLY ROAD	U	0	20	CH4	200 - 1000	No	2541	Yes	CH3	CH3		
41500852	ST AUGUSTINE'S CRESCENT	U	0	30	CH4	200 - 1000	No	1070	Yes	CH3	CH3		
41500897	STATION STREET	U	0	30	CH4	200 - 1000	No	1023	Yes	CH3	CH3		
41501471	BEACH ROAD	U	0	60	CH4	200 - 1000	No	1207	Yes	CH3	CH3		
41501529	OLD PORT ROAD	U	0	30	CH4	200 - 1000	No	1693	Yes	CH3	CH3		
41501621	TERRA NOVA WAY	U	0	30	CH4	200 - 1000	No	4105	Yes	CH3	CH3	High Pedestrians	
41501767	TREM ECHNI	U	0	30	CH4	200 - 1000	No	1336	Yes	CH3	CH3		
41501768	PENTIR Y DE	U	0	30	CH4	200 - 1000	No	2788	Yes	CH3	CH3		
41501823	LANE - JCT B4265 TO WEST ABERTHAW	B	B4265	40	CH2	5,000 - 10,000	No	2245	Yes	CH3	CH3	Farm Vehicles	
41502058	LANE - JCT SIGINGSTONE TO JCT LLANU	U	0	60	CH4	200 - 1000	No	46	Yes	CH3	CH3		
41502096	LANE - JCT HENSOL ROAD AT LLANEROU	U	0	30	CH4	200 - 1000	No	1878	Yes	CH3	CH3		
41502118	LANE - JCT AUBREY ARMS TO JCT AT AU	U	0	60	CH4	200 - 1000	No	94	Yes	CH3	CH3		