# Highway Asset Management Plan

2025-2030

Cyngor Sir
CEREDIGION
County Council

## Highways & Environmental Services

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| **Title** | Ceredigion County Council Highway Asset Management Plan 2025-2030 |
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| **Description** | This document summarises Ceredigion's Highway Asset Management Policy (2025-2030). It includes policy and strategies used by the service to construct, acquire, operate, maintain, rehabilitate and dispose of all Council Highway Assets. |
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## Responsibility for the Plan

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

| Council Officer | Responsible for |
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| Phil Jones | Highways Services |
| Steve Hallows | Highways Development Service |
| Caroline Wride | Highways Maintenance Service |

# Foreword

### *Leader of the Council*

*As the Leader of the Council, I am pleased to see the planned approach being further developed in managing our highway network.*

*We are all aware of the significant financial pressures on the public sector and this makes it all the more important that we manage our resources to achieve the important outcomes we need from our road system.*

*Residents, businesses and visitors to Ceredigion all rely on the access our highway network provides, and it is difficult to identify many aspects of daily life where good transport links have not played an important supporting role.*

*Looking to the future the good management of our highway network will be essential to facilitate our ambitions, regeneration aims and to encourage walking, cycling and the use of our passenger transport network.*

*As budgets tighten it becomes ever more important that we focus the resources we have available to maximum effect. Against this background, the Highway Asset Management Plan will be a key tool in channelling our resources towards the areas where investment is most urgently needed.*

*It is inevitable that difficult decisions will have to be made regarding how our funds are invested and this plan will form a key framework in guiding those decisions.*

……...

Bryan Davies
**Leader of the Council**

### *Chief Executive Officer*

*Welcome to Ceredigion County Council's Highway Asset Management Plan (HAMP). The highway network within Ceredigion is over 2,150 km of roads which need to be managed and maintained against a backdrop of ever-increasing traffic, varied weather conditions, and a high public expectation.*

*The transport network, and particularly our roads, play an important role in supporting many of the services provided by the County Council and good management of the highway network is key to how well we function as a county.*

*The roads system within Ceredigion supports not just our aspirations as a county but also the wider region and will be an important component in delivering the Mid-Wales Growth Deal.*

*The Highway Asset Management Plan (HAMP) provides the framework and route map towards the effective management of our highway network. National guidance and increasing financial pressures move us towards the risk-based approach adopted within this plan which will help ensure that we invest our funding where it is most needed and to best effect.*

*The HAMP will be subject to annual review and performance reporting through an Annual Statement and Options Report (ASOR) which will allow us to monitor progress and make informed investment decisions*

……

Eifion Evans
**Chief Executive**

## Definitions

**Assets:** In the highways context - the asset is the highway itself. This includes all other features that support the highway and the safe and expedient passage of the public along the highway.

**Asset Register:** A record of asset information considered worthy of separate identification.

**Asset Life:** Time from acquisition to disposal.

**Asset Management:** Activities and practices through which Council optimally manages its physical assets over their lifecycle.

**Asset Management Plan:** A plan that details financial and technical treatments over the life of the asset to allow the asset to be maintained at an agreed level of service.

**Level of Service:** The service standard set for each asset group/type.

**Whole Life Costs:** Total cost of an asset over its entire life including Capital Expenditure; Operational Expenditure; Maintenance Expenditure and ultimately its Decommissioning or Disposal costs.

**Capital Expenditure:** Any expenditure that is used to procure, acquire or construct a new asset.

**Operational Expenditure:** Any expenditure associated with improving adding to or upgrading the capability of an existing asset, to meet an amended agreed level of service.

**Revenue/ Maintenance Expenditure:** Any expenditure that allows an asset to continue providing the agreed level of service until the end of life is reached.

**Decommissioning or Disposal Expenditure:** Any expenditure that is required at the end of the whole life of each asset type.

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## 1.0 EXECUTIVE SUMMARY

1.1 This report discusses how the Highway Asset will be managed and maintained by Highways and Environmental Services in accordance with best practice and methods consistent with adjacent Authorities enabling benchmarking to be carried out each year.

1.2 The plan to invest in the Highway Asset is based on how the asset has been managed during the previous HAMP period and the costs that would be associated with maintaining current levels of deterioration against the current inflationary pressures.

**1.3 It is recommended for the period 2025 to 2030 that the action and budget investment by the Council should be:**

**Carriageways -** MAINTAIN THE CURRENT CONDITION.

- Annual funding of approximately £4.6M will need to be invested in **planned** refurbishment by
    - Surface Dressing across approximately 90km of carriageway
    - Resurfacing across approximately 20km of carriageway
- Annual Revenue funding of £2.3M will need to be allocated for the **reactive** repair of carriageways in accordance with the Highways Maintenance Manual 2022 in order to.
    - Repair defects at the current rate of approximately 1500 per annum

**Footways & Cycleways –** MANAGE WITH REACTIVE REPAIRS.

- Annual funding of approximately £160k will need to be invested in
    - **Planned** asset replacement treatments in the form of reconstruction and resurfacing across 1km of footway and cycleway
- Annual Revenue funding of £200k will need to be allocated for the **reactive** repair of footways and cycleways in accordance with the Highway Maintenance Manual 2022 in order to

- Repair defects at the current rate of approximately 200 defects per annum.

**Street Lighting** – MAINTAIN THE CURRENT CONDITION.

- Continue to invest in agreed measures to reduce energy consumption during end-of-life replacements.
- Annual **planned** investment of £35k in replacing end of life column identified by non-destructive testing
- Annual **planned** investment of £35k in replacing end of life cables identified by electrical testing
- Annual Revenue funding of £393k will need to be allocated for the **reactive** repair/replacement of street lighting apparatus in order to
  - Repair or replace defects to current standards at a rate of approximately 450 per annum

**Bridges & Structures** – INVEST TO REDUCE THE NUMBER OF ASSETS IN POOR OR VERY POOR CONDITION.

- Annual **planned** investment of Capital funding of approximately 200k will be needed to refurbish the structures in very poor condition
- Annual Revenue funding of £336k will need to be allocated in the **planned** cyclic and **reactive** repair of bridges and structures in accordance with the Highway Maintenance Manual 2022

**Traffic Signals** – MAINTAIN THE CURRENT CONDITION

- **Planned** capital funding of approximately £20k will be required to replace one controlled crossing over the plan period
- Annual Revenue funding of £14k will need to be allocated in the **reactive** and **planned** cyclic maintenance of traffic signal infrastructure in accordance with the Highways Maintenance Manual 2022.

## 2.0 INTRODUCTION

2.1 This HAMP has been developed to guide the management of all highway infrastructure assets under the control of Ceredigion County Council as defined by the highways register. The key assets included in this plan are carriageways (roads), footways & cycleways, bridges & structures, and street lighting. This plan will update existing policies and plans for highway infrastructure management and set out the authorities' means of compliance and response through a risk-based approach in line with *Well-Managed Highway Infrastructure – A Code of Practice*.

2.2 The HAMP sets out the Council's strategy for managing its highway infrastructure assets and recognises the importance of its highway infrastructure in contributing to corporate, regional and local objectives.

2.3 The purpose of the HAMP is to define the service standards that users can expect and explain the strategies to be implemented to achieve these standards

2.4 This plan has been developed in accordance with the County Surveyors Society (Wales) recommended highway asset management planning practices and the Council's Corporate plans and strategies.

2.5 The standards, targets and spending assumptions contained within this HAMP will be monitored and reported annually. The report will present a summary of the condition of the Council's assets for the year and provide information that will be used to inform choices regarding future investment levels during the budget setting process. The information used to carry this exercise out will be the previous complete financial year budget and condition survey data.

2.6 The HAMP has four key components and aims to provide the flexibility to accommodate changes in resources, demands and priorities. There are four main components to the HAMP:


2.7 Volume 1 – Policy and Strategy

The policy sets out Ceredigion County Council's approach to highway infrastructure asset management. The asset management strategy sets out the key objectives for the highway asset and how they will be met, including statutory obligations, stakeholder needs and the overall performance of highway infrastructure within the context of any constraints such as funding.

2.8 Volume 2 – The Highway Asset Management Framework

The framework sets out the strategies and processes necessary to develop, document, implement and continually improve asset management. The strategies within the framework are developed with due regard to the regional, corporate and local strategies.

The framework also defines how, what and where data is held against each asset category. It details the systems used for data storage and identifies how often this data is updated, verified and validated.

2.9 Volume 3 – The Highway Maintenance Plan

This has been developed to set out the way the Council will manage and plan the operational maintenance of our highway infrastructure assets. The maintenance manual has been developed over a period of time and sets out technical processes and procedures for day to day delivery of the highway maintenance service. This plan is closely aligned with the Code of Practice – Highway Inspection and Response on County Roads 2021. This Code of Practice establishes an effective regime of inspection, assessment and recording is the most crucial component of highway maintenance. The characteristics of the regime, which includes frequency of inspection, items to be recorded and nature of response, are defined following an assessment of their relative risks. The Council will also need to adapt to changing demands, resources and technology and continuously implement best asset management practice. Aspects of the plan will be updated as the Council works closely with neighbours and other local authorities in a collaborative manner by engagement through the County Surveyors Society Wales (CSSW) asset management project.

The HAMP underpins the management, prioritisation and service levels for highway maintenance and infrastructure investment. When implementing the HAMP, the Service will work to the Council's set of core values when delivering our policy objectives.

2.10 Volume 4 – Asset Status and Options Report (ASOR)

This will be a separate cyclical annual report produced each financial year that will review the investment made by the Council during the previous financial year and relate it to the condition surveys that are carried out for each asset category. The report is the mechanism to determine the planned investment for each asset category. Investment options will be presented in the report predicting how the asset condition will perform for the remainder of the HAMP period for a given budget amount. The ASOR will be made available prior to the Council budget setting process in December, allowing financial decisions to be made for the following fiscal year.

## 3.0 VOLUME 1 - POLICY & STRATEGY

3.1 This policy guides the management of Ceredigion County Council's Highway Assets to ensure that:

- Assets continue to deliver a service to the stakeholders at an agreed level.
- There is clear direction for staff to make informed decisions.
- Legislative requirements are satisfied.
- Exposure to risk is limited to acceptable levels.
- Asset purchases or constructed are only approved after whole of life costs and benefits are assessed.
- Clear allocation of responsibility for the management of each type of asset is given.

3.2 A policy review has been undertaken to inform the development of this HAMP and draws on the following documents in delivering a well maintained highway network;

National Policy

- Well-being of Future Generations (Wales) Act 2015
- Llwybr Newydd: A New Wales Transport Strategy (2021)
- Planning Policy Wales (Edition 11, 2021)
- Active Travel (Wales) Act (2013) and Active Travel Act Guidance (2021)
- Welsh Government Programme for Government (2021)
- Future Wales – the National Plan 2040
- Environment (Wales) Act 2016
- Prosperity for All: A Low Carbon Wales, 2019 and Net Zero Wales Plan (2021 – 2025)
- National Transport Delivery Plan, 2022

Regional Policy

- Mid Wales Joint Local Transport Plan 2015
- *Draft* Mid Wales Regional Transport Plan 2025

Local Policy

- Ceredigion Local Development Plan 2007 – 2022
- Ceredigion Corporate Strategy 2022 – 2027
- Ceredigion Local Well-being Plan 2009 – 2023

## 3.3 National Policy

*3.4* *Wellbeing of Future Generations (Wales) Act 2015*

The Well-being of Future Generations Act seeks to ensure that public bodies work collaboratively and consider future generations in the decisions made today. The Act outlines seven well-being goals, as follows:

- A prosperous Wales
- A resilient Wales
- A healthier Wales
- A more equal Wales
- A Wales of cohesive communities
- A Wales of vibrant culture and thriving Welsh Language
- A globally responsible Wales


3.5 The Well-being of Future Generations (Wales) Act also details five ways of working to enable the Act. These will be considered in appraising future options. These are:

**Long Term** – "The importance of balancing short-term needs with the need to safeguard the ability to also meet long-term needs." Improving transport links will ensure that the long-term needs of the community are met, such as accessing key services and facilities and providing the opportunity for improvements to be made to the local Active Travel network in the future by maintaining a cohesive transport network.

**Prevention** – "How acting to prevent problems occurring or getting worse may help public bodies meet their objectives." Maintenance of the transport network will prevent severing a key transport link for the local communities and contribute to the climate change prevention agenda by encouraging more Active Travel journeys.

**Integration** – "Considering how the public body's well-being objectives may impact upon each of the well-being goals, on their objectives, or on the objectives of other public bodies."

**Collaboration** – "Acting in collaboration with any other person (or different parts of the body itself) that could help the body to meet its well-being

objectives." Stakeholders operating within Ceredigion County Council have been engaged as part of this HAMP process.

**Involvement** – "The importance of involving people with an interest in achieving the wellbeing goals and ensuring that those people reflect the diversity of the area which the body serves." As part of the stakeholder engagement process, national, regional, and local representatives along with other local interested parties, i.e. Welsh Government, Community Councils, Transport for Wales, Natural Resources Wales, Disability groups, etc, will be engaged at an early stage, to feed into scheme option/ selection.

3.6 *Llwybr Newydd: The Wales Transport Strategy (2021)*

Llwybr Newydd (new path): the Wales Transport Strategy sets out the Welsh Government's vision and long term 20-year ambitions for transport and how they contribute to well-being in Wales. The Strategy uses the Sustainable Transport Hierarchy. This prioritises more sustainable modes of transport, such as walking, cycling and public transport, over the private motor vehicle. Figure 1 presents the Hierarchy

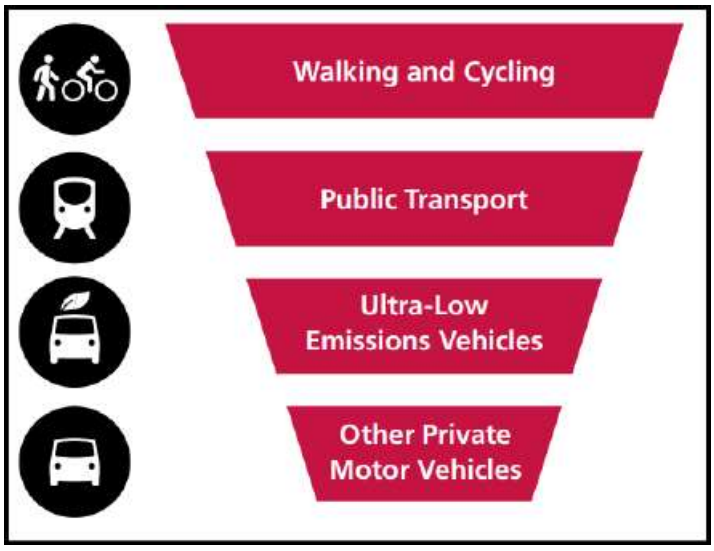



*Figure 1 - The Sustainable Transport Hierachy*

3.7 The vision of the Wales Transport Strategy is for "an accessible, sustainable and efficient transport system". This is to be achieved by the four long-term ambitions:

- Good for people and communities;
- Good for the environment;

- Good for the economy and places in Wales; and
- Good for culture and the Welsh Language.

3.8 In order to deliver the Strategy's vision and the four long-term 20-year ambitions, there are three main headline priorities for the next five years, which are subject to review if circumstances and technology change:

- Bring services to people in order to reduce the need to travel;
- Allow people and goods to move easily from door to door by accessible, sustainable and efficient transport services and infrastructure; and
- Encourage people to make the change to more sustainable transport.

3.9 The objectives of the study area support the Sustainable Transport Hierarchy, which prioritises walking and cycling, through maintaining existing Public Rights of Way and the Cycle Trail that passes over the bridge. Maintenance of these features would also provide opportunity for the local Active Travel network to be improved in the future, as a separate scheme, due to the bridge's strategic importance and connections to neighbouring communities. Moreover, maintaining the local transport network would also maintain access to the bus network which is prioritised in the Hierarchy.

3.10 *Planning Policy Wales (Edition 11, 2021)*
Planning Policy Wales (PPW) sets out the Welsh Government's planning policies for land use in Wales. The primary objective of PPW is to ensure that the planning system contributes towards the delivery of sustainable development and improves the social, economic, environmental and cultural well-being of Wales, as required by the Planning (Wales) Act 2015, the Well-being of Future Generations (Wales) Act 2015 and other key legislation and resultant duties such as the Socioeconomic Duty.

3.11 PPW promotes action at all levels of the planning process which is conducive to maximising its contribution to the well-being of Wales and its communities. To support the delivery of the Well-being of Future Generations (Wales) Act goals, PPW focuses on the concept of Placemaking. PPW forms part of a suite of documents at the heart of the planning system in Wales and promotes actions at all levels through a series of Strategic and Spatial outcomes. Table 1 represents the key themes and their deliverable objectives for Placemaking.

| Key Theme | Deliverable |
|---|---|
| Placemaking in Action | • Good Design Making Better Places;<br>• Promoting Healthier Places;<br>• The Welsh Language and Placemaking;<br>• Sustainable Management of Natural Resources; and<br>• Placemaking in Rural Area |
| Strategic Placemaking | • Spatial Strategy and Site Search Sequence;<br>• Accessibility;<br>• New Settlements;<br>• Previously Developed Land;<br>• Use of Compulsory Purchase Powers;<br>• The Best and Most Versatile Agricultural Land;<br>• Development in the Countryside;<br>• Supporting Infrastructure; and<br>• Managing Settlement Form – Green Belts and Green Wedges |

*Table 1 - Planning Policy Wales key themes and deliverables*

3.12 PPW also outlines Key Planning Principles, which are as follows:

- Creating and Sustaining Communities;
- Growing Our Economy in a Sustainable Manner;
- Making Best Use of Resources;
- Maximising Environmental Protection and Limiting Environmental Impact; and
- Facilitating Accessible and Healthy Environments.

3.13 In accordance with PPW, this HAMP outlines objectives that address the transport issues in the study area, which will aid the delivery of the themes and objectives of PPW Edition 11. For instance, prioritising the strategic importance of local transport links will aid deliverables across all PPW themes, such as 'supporting infrastructure', 'accessibility', 'good design making better places', and 'promoting healthier places'.

3.14 *Active Travel (Wales) Act (2013) and Active Travel Act Guidance (2021)*
The Active Travel (Wales) Act was passed by the National Assembly of Wales in 2013. The Active Travel Act Guidance was updated in July 2021. The

guidance seeks to secure new and enhanced active travel routes and facilities, improving provision for walkers and cyclists across Wales. The Act requires Local Authorities to map existing active travel routes and regularly monitor active travel facilities/routes to review where improvements and/or new routes are required. Part of this process requires Local Authorities to produce annual reports regarding how much routes are used.

3.15 Active Travel Act Guidance was updated by the Welsh Government in July 2021 and provides guidance in delivering the requirements of the Act. The guidance sets out a vision 'for walking and cycling to be the natural mode of choice for short everyday journeys, or as part of a longer journey in combination with other sustainable modes'. The guidance also sets out a 15-year ambition 'for a comprehensive network of safe, direct, cohesive, comfortable and attractive walking and cycling routes within and connecting to key settlements across Wales.'

3.16 Maintenance of the road, cycle and footway networks will provide opportunities for communities on either side of the river to travel to key destinations, via foot or cycle, therefore, positively contributing towards the uptake of active travel journeys in the County.

3.17 *Welsh Government Programme for Government (2021)*

The Programme for Government (June 2021) sets out the ten well-being objectives that the Welsh Government will use to maximise its contribution to Wales' seven long-term well-being goals and the steps that will be taken to deliver them. The ten well-being objectives are:

- Provide effective, high quality and sustainable healthcare.
- Continue our long-term programme of education reform, and ensure educational inequalities narrow and standards rise.
- Protect, re-build and develop our services for vulnerable people.
- Celebrate diversity and move to eliminate inequality in all of its forms.
- Build an economy based on the principles of fair work, sustainability and the industries and services of the future.
- Push towards a million Welsh speakers, and enable our tourism, sports and arts industries to thrive.
- Build a stronger, greener economy as we make maximum progress towards decarbonisation.

- Make our cities, towns and villages even better places in which to live and work.
- Embed our response to the climate and nature emergency in everything we do.
- Lead Wales in a national civic conversation about our constitutional future and give our country the strongest possible presence on the world stage.

3.18 The HAMP helps to support the Programme for Government through helping to build a stronger, greener economy and making our cities, towns and villages better places in which to live and work. Achieving the study objectives will ensure a cohesive local transport network that supports the needs of the community to access key facilities.

3.19 *Future Wales – The National Plan 2040*

Future Wales – the National Plan 2040 is the national development framework, setting the direction for development in Wales to 2040. It is a development plan with a strategy for addressing key national priorities through the planning system, including sustaining and developing a vibrant economy, achieving decarbonisation and climate-resilience, developing strong ecosystems and improving the health and well-being of our communities. The National Plan 2040 replaces the previous Wales Spatial Plan. Unlike the Wales Spatial Plan, the National Plan has development plan status and therefore be of greater significance

3.20 The National Development Framework will:

- Address the climate emergency, by prioritising decarbonisation and environmentally friendly practices;
- Set out where nationally important growth and infrastructure is needed and how the planning system – nationally, regionally and locally – can deliver it;
- Provide direction for Strategic and Local Development Plans and support the determination of Developments of National Significance;
- Sit alongside Planning Policy Wales, which sets out the Welsh Government's planning policies and will continue to provide to context for land use planning; and

- Support national economic, transport, environmental, housing, energy and cultural strategies and ensure they can be delivered through the planning system.

3.21 Future Wales outlines 11 outcomes which work towards these ambitions based on the national planning principles and national sustainable placemaking outcomes set out in Planning Policy Wales (Edition 11). The 11 outcomes are as follows:

3.22 A Wales where people want to live…

- … and work in connected, inclusive and healthy places
- … in vibrant rural places with access to homes, jobs and services
- … in distinctive regions that tackle health and socio-economic inequality through sustainable growth
- … in places with a thriving Welsh Language
- … and work in towns and cities which are a focus and springboard for sustainable growth
- … in place where prosperity, innovation and culture are promoted
- … in places where travel is sustainable
- … in places with world-class digital infrastructure
- … in places that sustainably manage their natural resources and reduce pollution
- … in places with biodiverse, resilient and connected ecosystems
- … in places which are decarbonised and climate-resilient

3.23 The spatial strategy outlined in Future Wales listed 33 policies, two of which directly related to transport and improving connectivity. These are as follows:

**Policy 11 – National Connectivity**
The Welsh Government will work with Transport for Wales, local authorities, operators and partners to support the delivery of the following measures to improve national connectivity:

- Rail Network – Transform the rail network and improve the quality of rail services for passengers.
- Bus Network – Invest in the development of the national bus network, fully integrated with regional and local bus networks, to increase modal

share of bus travel and improve access by bus to a wider range of trip destinations.

- Strategic Road Network – Invest in road improvements to reduce journey times, deliver a safer and more resilient road network, and improve air and noise quality. Create a network of rapid-charging points to enable longer distance travel by electric vehicles throughout Wales.
- National Cycle Network – Revitalise the National Cycle Network to create a network of traffic-free paths connecting cities, towns and countryside across Wales.

**Policy 12 – Regional Connectivity**

In urban areas, to support sustainable growth and regeneration, our priorities are improving and integrating active travel and public transport. In rural areas our priorities are supporting the uptake of ultra-low emission vehicles and diversifying and sustaining local bus services. The Welsh Government will work with Transport for Wales, local authorities, operators and partners to deliver the following measures to improve regional connectivity:

- Active Travel – Prioritising walking and cycling for all local travel. The Council will support the implementation of the Active Travel Act to create comprehensive networks of local walking and cycling routes that connect places that people need to get to for everyday purposes.
- Bus – Improve the legislative framework for how local bus services are planned and delivered. We will invest in the development of integrated regional and local bus networks to increase modal share of bus travel and improve access by bus to a wider range of trip destinations.
- Ultra-Low Emission Vehicles – Support the roll-out of suitable fuelling infrastructure to facilitate the adoption of ultra-low emission vehicles, particularly in rural areas.

The HAMP is supportive of the aims of the Future Wales plan by preserving the local transport network for all users, which is particularly important in rural communities, where there are usually longer distances between trip origin and destination. In terms of national connectivity, maintenance of the local transport network will strengthen the Strategic Road Network by providing an essential link between communities in adjacent counties and connections to the A44 and A487 Trunk Road network.

This HAMP presents the case for maintaining the highway and improving links to the local bus and cycle network thereby providing an essential sustainable transport link to services within the local and wider area.

3.24 *Environment (Wales) Act 2016*

The Environment (Wales) Act puts in place the legislation needed to plan and manage Wales's natural resources in a more proactive, sustainable and joined-up way. The Act is made up of seven parts ranging from sustainable management of natural resources and climate change to Flood & Coastal Erosion Committee and land drainage. This positions Wales as a low carbon, green economy, ready to adapt to the impacts of climate change.

The Act places a duty to reduce emissions within the Welsh Government carbon budgets. The interim emission reduction targets are:

- 2030: 45% reduction; and
- 2040: 67% reduction.

The HAMP aims to explore options that support the needs of the environment, including reducing emissions. Reducing the need for vehicles to make alternative, longer journeys to reach their destination, e.g. local farmers accessing their land during their working day or local businesses making deliveries, will reduce the amount of emissions that are produced as a result of the local road network.

3.25 *Prosperity for All: A Low Carbon Wales, 2019 and Net Zero Wales Plan (2021 – 2025)*

In April 2019, Welsh Government declared a climate emergency and produced a 100-point Low Carbon Plan which sets out details on how Wales can become carbon neutral by 2030. The Net Zero Wales Plan is a five-year plan of action that shapes the next stage of Wales's aim to be net zero by 2050. It is the next emissions reduction plan, following on from Prosperity for all: A Low Carbon Wales, which covered the first carbon budget (2016-20).

The plan identifies that reducing emissions from transport has a significant role in the overarching aim of Wales reaching net zero, as well as playing a role in "generating wider benefits across health, air quality, accessibility and the economy." Promoting a modal shift towards more sustainable modes is one of

the identified areas of mitigation. The present study will contribute towards this shift by maintaining existing walking and cycling infrastructure so that it can contribute to the Council's aspirations for an active travel network in this area. This will ensure that Active Travel is a viable form of travel, particularly regarding access to local services and travelling to key destinations further away.

*3.26* *National Transport Delivery Plan (2022)*

The National Transport Delivery Plan (NTDP) sets out how Welsh Government will deliver the priorities and ambitions set out in the Llwybr Newydd: The Wales Transport Strategy (2021) (WTS) from 2022 to 2027. It builds on the commitments in the WTS which sets out how Welsh Government will invest responsibly, deliver the strategy and hold themselves and others to account using the five ways of working. The NTDP supports the delivery of Active Travel and aims to deliver 3 priorities:

- Bring services to people in order to reduce the need for people to use their cars on a daily basis;
- Accessible, sustainable, and efficient transport services and infrastructure; and
- Behaviour change.

This is particularly important in rural communities where services and facilities tend to be further afield. Maintaining and allowing the existing non-motorised user routes to be further developed will facilitate an increase in more local journeys being undertaken by walking and cycling, or in combination with local bus services.

## 3.27 Regional Policy

3.28 *Mid Wales Joint Local Transport Plan 2015*

The Mid Wales Joint Local Transport Plan 2015 sets out a vision to *"plan for and deliver in partnership an integrated and affordable transport system in the region that facilitates economic development, ensures access for all to services and opportunities, sustains and improves the quality of community life, and makes an active contribution to the management of carbon and the quality of the environment".*

The plan identifies a number of issues and opportunities for transport in Mid Wales and describes what Higher Level Interventions are needed in order to address these. The Higher-Level Interventions listed are:

- Improving Strategic Connections;
- Improving Accessibility to Employment and Services;
- Encouraging Walking and Cycling
- Integrated Public Transport Networks; and
- Improving Safety and Security.

The HAMP will address the interventions identified in the Plan by maintaining a strategic connection to key areas and facilities, which in turn will enhance the resilience of the local transport network.

3.29 *Draft Mid Wales Regional Transport Plan 2025-30*

**Consultation of the draft plan closes on 4th April 2025**.

The Regional Transport Plan (RTP) is being developed by the Mid Wales Corporate Joint Committee (CJC) which is a partnership between Ceredigion and Powys County Councils and guided by Llwybr Newydd: Wales Transport Strategy 2021 (see 3.6).

The draft RTP sets an ambitious vision to create a sustainable, low-carbon, and efficient transport system. It will focus on improving connectivity within and beyond Mid Wales while tackling challenges unique to our rural landscape. The key objectives of the RTP include:

- Increasing access to sustainable transport modes such as cycling, walking, and public transport
- Enhancing transport links to drive economic and tourism growth.

- Supporting efforts to reduce the environmental impacts of transport

The vision for the RTP in Mid Wales is “An accessible, low carbon, efficient, and well-connected rural transport system that supports sustainable economic growth, prosperous communities and a vibrant culture within the distinctive region of Mid Wales”.

The plan preparation has been overseen by Transport Sub Committee of the CJC. The Plan is a statutory document for transport in the region. The two local authorities are working together to facilitate economic wellbeing, strategic development planning and transportation, ensuring access for all to services and opportunities, sustaining and improving the quality of community life, and making an active contribution to net zero of carbon and the quality of the environment, by delivering in partnership an integrated and affordable transport system in the region.

The RTP complements the work of the local authorities in economic development and planning including the statutory plans and policies of two authorities. The Plan aims to address the key issues and opportunities for Mid Wales:

- Difficulties in gaining access to employment and services, particularly for those without a car and because of the need to travel long distances.
- Poor opportunities for passing, pinch points and constraints on the strategic road network leading to increased disruptions and reduced journey time reliability for the movement of people and goods within the region and to key destinations outside of Mid Wales.
- Increased risks to the resilience of the network through impacts of climate change, including flood risk.
- Opportunities to increase mode share by walking wheeling and cycling modes and to improve the health and well-being of the local community and to continue to improve the road safety record.

The Plan covers a detailed programme from 2025-2030 and a framework for schemes until 2040 and beyond.

## 3.30 Local Policy

*3.31* *Ceredigion Local Development Plan 2007 – 2022*

The Ceredigion Local Development Plan (2007- 2022) sets out various policies and proposals in relation to the development and use of land. The Plan identifies eighteen objectives that address how the overall vision of the LDP will be achieved and how key issues with be addressed. The objectives relating to transport are:

- To promote a pattern of growth that helps to sustain the vitality not only of the towns and their immediate rural hinterlands but also the rural communities of this large county, in such a way as to enhance social, cultural, economic and environmental characteristics and to maximise sustainable accessibility and connectivity.
- To sustain and enhance a high-quality built environment which; allows for innovative design, reflects a sense of place, is easily accessible, useable, safe to live in and helps improve the health and wellbeing of its communities.
- To enhance and help ensure the provision and protection of an appropriate level of and access to education, health, cultural, social, recreational, community, sport and leisure facilities and services.
- To ensure development minimises Ceredigion's greenhouse gas contribution, both singularly and cumulatively; and to seek a reduction wherever possible. To ensure that all developments are adaptive and resilient to the changing nature of the climate and work toward reducing the risk from flooding.
- To assist in improving the potential for sustainable travel; equality of access; and the connectivity of the county for the sake of its economy, its communities and their health and well-being.

Policy DM04 within the Plan focusses on enhancing transport infrastructure to provide potential for sustainable travel, such as "providing connections to existing routes from new development, reinstating infrastructure that has fallen into disuse where that will serve new development in a sustainable way and providing improved health and quality of life…"

3.32 *Ceredigion Corporate Strategy 2022 – 2027*

The Corporate Strategy sets out to successfully deliver four Corporate Well-being Objectives which reflect sustainability and the well-being of the citizens of Ceredigion. The plan then identifies a number of priorities to deliver each of the objectives. Those objectives have been identified after extensive consultation as:

- Boosting the Economy, Supporting Businesses and Enabling Employment;
- Creating Caring and Healthy Communities;
- Providing the Best Start in Life and Enabling Learning at All Ages; and
- Creating Sustainable, Green and Well-connected Communities.

This HAMP will ensure transport connectivity in the local area is maintained, particularly with regard to connections to essential services and facilities throughout Ceredigion. The HAMP will also ensure provision for walking and cycling is maintained, encouraging its use and therefore benefitting physical and mental well-being.

## 4.0 HAMP POLICY

### 4.1 Policy Statement

4.2 This HAMP defines highway asset management as

"A systematic approach to meeting the strategic need for the management and maintenance of highway infrastructure assets through long term planning and optimal allocation of resources in order to manage risk and meet the performance requirements of the Council in the most efficient and sustainable manner".

4.3 Against this backdrop this HAMP has been developed to ensure the Council has well-managed highway infrastructure assets in line with the recommendations of the national code of practice and to deliver Ceredigion County Council's key aspirations.

4.4 The following policy objectives for this HAMP have been developed to support these aspirations:

**Key Objectives:**

1. The Highway Authority will manage its resources to support the safe and expeditious movement of goods and people by means of a risk based and prioritised approach.
2. Continue to manage and maintain the network to enable sustainable modes of travel including cycling and walking.
3. National, Corporate and Business planning objectives will underpin this policy.
4. The Council will adopt effective asset management practices leading to more efficient and effective maintenance activities.
5. To put in place appropriate inspection and maintenance regimes, data collection, condition surveys, inventory management and information systems to enable informed decision making, to ensure our statutory duties are met and to minimise the County Councils exposure to claims.

### 4.5 Delivery of the HAMP Key Objectives

4.6 Ceredigion County Council's HAMP will enable the delivery of key highways objectives whilst supporting regional and Council wide objectives.

4.7 The stated Highway Service objectives are:

**Key objective 1**: The Highway Authority will manage its resources to support the safe and expeditious movement of goods and people by means of a risk based and prioritised approach. This will be done by:

a) providing a highway network which is fit for purpose. This translates to a road network that is: 1) Safe – Ensuring compliance with statutory obligations.
b) Serviceable – Ensuring availability, integrity, reliability.
c) Sustainable– Maximising value to the community.
d) supporting national, regional and local transport and road safety strategies
e) co-ordinating the works on the network to minimise congestion
f) using a risk assessment matrix, network hierarchy, and traffic volumes to target resources

**Key objective 2**: Continue to manage and maintain the network to enable sustainable modes of travel including cycling and walking. This will be done by:

a) supporting Active Travel initiatives
b) maintaining and managing the highway cycle network within Ceredigion
c) developing footway and cycleway maintenance hierarchies
d) supporting the infrastructure for passenger transport networks
e) recognising cycle usage as part of our highway investment prioritisation model

**Key objective 3**: National, Corporate and Business planning objectives will underpin this policy. This will be done by:

a) liaising with internal and external partners to ensure that highway maintenance activities are aligned with wider objectives
b) recognising changes in legislation and policies
c) acting on feedback received from the Council's Capital Monitoring Group to ensure appropriate oversight of capital investment
d) producing an Annual Statement and Options Report which will provide a positional statement and investment options

**Key objective 4**: The Council will adopt effective asset management practices leading to more efficient and effective maintenance activities. This will be done by:

a) recognising whole life costs, long-term sustainability, technical advancement and environmental considerations, in relation to the available resources.
b) developing life cycle plans for the whole life of our infrastructure assets to enable us to carry out preventative maintenance at the right time to avoid costly reactive repairs to our assets.
c) Working collaboratively with other Welsh authorities within the County Surveyors Society Wales (CSSW) asset management project

**Key objective 5**: To put in place appropriate inspection and maintenance regimes, data collection, condition surveys, inventory management and information systems to enable informed decision making, to ensure our statutory duties are met and to minimise the County Council's exposure to claims. This will be done by:

a) maintaining an appropriate infrastructure assets inspection procedure. This will take into account national guidance such as the Well-Managed Highway Infrastructure code of practice etc.
b) ensuring that highway defects, whether identified by inspectors or reported by the public, are investigated and repaired in accordance with the criteria set out in our highway maintenance manual (Volume 3) and the Code of Practice Highway Safety Inspection and Response on County Roads 2021
c) maintaining our investment in our asset management systems
d) carry out appropriate inventory and condition surveys of our infrastructure assets
e) investing in data capture and mobile technology to capture asset information, condition data and keep accurate records of works undertaken on the assets.

4.8 The detailed procedures used to ensure the Council provides data to inform its decision- making process are set out in the Information and Data Management Strategy. The strategy is set out in Volume 2, the HAMP, the supporting framework document, and engagement activities undertaken will be reported each year in the Annual Statement and Options Reports (ASOR's)

## 4.9 Key Objective Relationships

| Council Objectives | | | |
|---|---|---|---|
| Boosting the Economy, Supporting Businesses and Enabling Employment | Creating Caring and Healthy Communities | Providing the Best Start in Life and Enabling Learning at All Ages | Creating Sustainable, Green and Well-connected Communities |

| Corporate Highways Specific Objectives | | | |
|---|---|---|---|
| Supporting resilience with our rural and urban communities through improved transport links | Improving the highway infrastructure and communication network to support further economic development and activity | Reducing speeding and road traffic accidents and a reduction in road casualties | Getting more people physically active more often, promoting active travel and providing sustainable transport infrastructure |

| Key well-being objectives | HAMP Objectives |
|---|---|
| Support new and growing businesses in the County | 1. Manage resources to support the safe and expeditious movement of goods and people |
| Encourage and enable people to get physically active so they can benefit from positive health and wellbeing | 2. Manage and maintain the network to enable sustainable modes of travel including cycling and walking |
| Develop an improvement plan for the strategic provision of facilities to increase physical activity levels in the county | 3. To put in place inspection, maintenance and condition surveys and information systems to enable informed decision making and meet our statutory duties |
| Support increased provision for walking and cycling | 4. Adopt effective asset management practice |
| Halt and reverse the decline in biodiversity | 5. Support the objectives of National, Corporate and Service business plan. |
| Improve digital, transport and energy connectivity | |

### 4.10 Scope of the Policy

4.11 This Policy covers highway infrastructure assets on Ceredigion County Council's publicly maintainable highway network. The infrastructure assets include:

- Roads
- Footways
- Highway Bridges and related structures
- Highway drainage
- On and off-road Cycle routes
- Geotechnical assets
- Highway Lighting, traffic signals and illuminated signs
- Highway street furniture and traffic calming measures
- Highway trees and verges

4.12 The Policy **does not** cover the following asset:

- Trunk Roads
- Public Rights of Way
- Car Parks
- Land Drainage assets
- Non-adopted carriageways / footways
- Non-adopted Council highway assets (Corporate Estate)
- Coastal defences
- Speed cameras/CCTV/ANPR
- Community or transferred Assets
- Corporate non adopted structures/buildings

## 5.0 IMPLEMENTING THE HAMP POLICY STRATEGY

### 5.1 Asset Management Planning as a Policy

The Council will adopt an asset management planning approach for the management of highway infrastructure assets adopting the recommended practices set out in the (CSSW) Highway Asset Management Framework.

Prior to acceptance, proposed Capital Works projects shall be subjected to technical and life cycle cost evaluation and prioritised using predetermined criteria developed to satisfy the goals of the Corporate Plan and the HAMP.

### 5.2 Asset Data

The Council, through the Highways Maintenance/Development Service Managers will collect and maintain data sufficient to support the recommended practices. This will include:

**Inventory:** maintaining an asset register to the level of detail required to meet the requirements of the Chartered Institute of Public Finance and Accountancy (CIPFA) Transport Infrastructure Asset Code.

**Inspection records:** maintaining records of inspections undertaken and defects identified

**Repair records:** maintaining details of the repairs undertaken

**Condition survey data:** maintaining records of condition assessments

**Customer contact data:** maintaining records of requests, notification of defects and complaints

**Cost data:** maintaining records of the cost of repairs and works sufficient to enable review

## 6.0 HAMP FINANCIAL MANAGEMENT

6.1 The Council will apply the appropriate financial management practices required to support asset management.

6.2 The Council will **record and review** the following;

6.3 High level historical costs in order to understand how the asset condition has been affected by the levels of investment.

6.4 Unit costs of the common activities in order to understand how they are changing over time and use them to inform the cost-effectiveness of those activities.

6.5 Benchmark high level costs against peer authorities in order to allow an assessment of how much others are investing and what results they are able to achieve for their budgets.

6.6 Benchmark unit costs against peer authorities and external suppliers' in order to assess them in comparison to how much others able to deliver for similar activities.

6.7 The Council will report an **annual asset valuation**. This will be done by calculating annual depreciation costs using a method set out in the transport asset valuation procedure and report them with gross replacement and depreciated replacement cost figures.

6.8 Report long term future costing options in order to **show the level of investment required** to maintain the asset and allow choices to be made in consideration of both short and long-term needs.

6.9 Undertake a **lifecycle cost analysis** (whole life costing) to enable choices to be made that balance short and long-term costs appropriately and allow minimal whole life cost options to be targeted.

6.10 Report **major investment options** by preparing specific business cases to Development Group for Capital investment ensuring that expenditure is justified, monitored and reported on to ensure that the intended benefits are realised.

6.11 **Review budget allocation** using the Council's Highway Asset Management Plan to recommend and guide the setting of Council budgets for maintaining

the Highway asset. This will include the funding required for all asset purchase, maintenance, rehabilitation and replacement.

## 7.0 PERFORMANCE REVIEW

7.1 In order to ensure that the standards set out in this manual are adhered to the Council will develop and operate a performance monitoring regime as set out below;

**7.2 Community Expectations -** Monitor contacts from users and residents and report upon issues identified or trends in the amount of contact.

7.3 **Risk Review** - Undertake an annual review of risks associated with the management of its highway infrastructure and report the outcome

Develop, maintain and regularly review a Highway Asset Risk Register that will identify the risks associated with the Council's Highway infrastructure and record the controls in place to manage them.

7.4 **Operational Performance Measures (OPM)** - A series of operational performance measures will be developed and used to monitor ongoing activities such as inspections and routine and reactive repairs. A list of the operational performance measures along with their frequency of report and to who they are reported.

7.5 These operational measures will be designed to enable the service managers to undertake corrective action if performance has fallen below the required standards. As such the reporting of these measures is undertaken at frequencies within the year i.e. monthly, quarterly etc.

7.6 **Performance Indicators -** The following National and Local Performance Indicators measure how the service is performing

| National Indicators |
|---|
| National P.I. PAM020 - % km of A roads in poor condition |
| National P.I. PAM021 - % km of B roads in poor condition |
| National P.I. PAM022 - % km of C roads in poor condition |

| Local Indicators |
| --- |
| Local P.I. HES-LPI-03 -The average number of calendar days taken to repair street lighting failures during the year<br>Local P.I. HES-LPI-09 - % Category 1 Defects repaired or made safe by the end of the next working day |

7.7 In addition, CSSW has developed a suite of performance measures designed to enable authorities to monitor the performance of their highway assets. The Council will adopt the recording and reporting of these performance measures in order to enable review of progress in meeting condition targets set in the asset management plan and to facilitate appropriate comparison with peer authorities.

7.8 **Benchmarking** - The Council participates in appropriate benchmarking activities using the data recorded for appropriate OPM's and PIs. This benchmarking with be facilitated via the CSSW HAMP project. It is recognised that some of the measures are a direct result of Council choice in terms of local standards and targets adopted and as such comparison with other authorities may not always be appropriate. There are elements of performance however where understanding equivalent performance in similar authorities will enable the Council to share and learn from good practice and to implement improvements. The Council actively pursues this via collaboration facilitated by CSSW and the various committees and groups that CSSW support.

## 8.0 HIGHWAY MAINTENANCE MANUAL

8.1 The Council, through the Service Manager (Highways Maintenance) will maintain a manual detailing how highway maintenance is carried out. The Highway Maintenance Manual defines how and when we:

- Inspect
- Categorise and prioritise reactive repairs
- Assess condition
- Identify and prioritise sites for renewal or replacement
- Choose the materials used
- Prepare works programmes
- Procure and manage works
- Record and report costs
- Record and respond to customer contacts
- This is closely aligned with the Code of Practice Highway Safety Inspection and Response on County Roads 2021

## 9.0 HAMP ANNUAL REPORTING

9.1 The Council through the Corporate Manager (Highways Services) will prepare an Annual Status and Options Report (ASOR). The purpose of this report is to provide managers and elected members with information to enable standards to be set and included in the Highway Asset Management Plan. It summarises and reports:

- The status of each asset group in terms of its condition and the Council's ability to meet its reactive repair standards
- The result of the previous year's investment in terms of meeting the target service standards.
- The results of the annual risk review
- The options available for the future in terms of both short and long term predictions of levels of defects and condition that can be afforded for different budget levels.

9.2 Wherever possible predictive modelling will be used to develop and implement preventative maintenance programs to ensure lowest life cycle costs. Best value lies with planned preventive maintenance as opposed to relatively expensive reactive maintenance

9.3 When the annual budget is set any amendment to the service standards specified in the asset management plan will be made and an addendum to the highway asset management plan published.

## 10.0 HAMP MANAGEMENT

10.1 The Council through the Corporate Manager (Highways Services) will;

10.2 Develop a Highway Asset Management Plan covering roads (carriageways), footways, bridges & structures and street lights. The HAMP is normally reviewed on a five yearly frequency.

10.3 The HAMP shall define the management strategies to be adopted throughout the life cycle of the asset.

10.4 The HAMP shall include:

- Predicted future changes in demand
- Levels of service required
- The investment required in the maintenance, renewal and replacement of assets to meet the levels of service approved by the Council
- Methods of performance monitoring and appraisal
- Financial projections
- The risks associated with the plan

10.5 The Council, through the Service Manager (Highways Development), will provide a **Works Programme** and;

- Maintain a rolling programme for all asset groups directly related to strategies contained in the HAMP.
- Evaluate and review the works programme annually

10.6 The Council, through the Service Manager (Highways Development), will ensure effective **Communication** by:

- Allocating responsibility for asset management to appropriately trained/skilled/competent personnel.
- Maintaining regular planned Asset Management communications appropriate to stakeholder needs
- Engaging with relevant national projects such as the CSSW HAMP project.

10.7 The Council through the Corporate Manager (Highways Services) will drive **Improvement and Value for Money** through the effective application of good asset management to deliver improvements and better value for money from maintaining and monitoring a register of efficiency improvements

**10.8** The Council through the Service Manager (Highways Maintenance) will carry out an **assessment of highway asset management practice** annually.

## 11.0 ROLES AND RESPONSIBILITIES

11.1 The roles and responsibilities for undertaking Highway Asset Management Planning are as detailed below:

### 11.2 Elected Members

- To act as custodians of Council assets.
- To set corporate asset management policy with linkage to Council's Corporate Plan.
- To agree Levels of Service and Levels of Acceptable Risk for each asset class as advised and recommended by the Service in its ASOR's .
- To allocate budgets to achieve the levels set.
- To ensure appropriate resources for Asset Management activities are made available.

### 11.3 Chief Executive Officer / Corporate Leadership Group

- To provide strategic direction and leadership.
- To ensure there is continuous improvement in asset management.
- To review existing policies and develop new policies related to asset management.
- To monitor and review managers and staff in achieving the Asset Management Strategy.
- To ensure accurate and reliable asset information is presented to Council.

### 11.4 Managers and Staff

- To implement the Asset Management Policy and plan with agreed resources.
- To develop and implement improvement plans for individual asset groups.
- To develop and implement Maintenance and Capital Works programs in accordance with Asset Management Plan and budgets
- To deliver levels of service to agreed risk and cost standards.
- To present information to the Council, Chief Executive Officer and Executive team in terms of life cycle risks and costs
- To seek stakeholder feedback on proposed changes to service levels

## 12.0 ASSOCIATED PROCEDURES AND RELATED POLICIES

12.1 Medium Term Financial Strategy – see link below to CCC webpage

**MEDIUM TERM FINANCIAL STRATEGY 2024/25 - CEREDIGION COUNTY COUNCIL**

## 13.0 VOLUME 2 – HIGHWAY ASSET MANAGEMENT FRAMEWORK

13.1 **Purpose -** The purpose of this section is to document how Ceredigion County Council (CCC) manages highway maintenance. It shows how the Council plans to meet its duties as the Highway Authority and documents the methods used to ensure that the risk to users is appropriately monitored and managed.

13.2 **Scope -** Highways Services will undertake maintenance activities on behalf of the Council on the County Road Network. This section details the procedures used by the Council in the planning and execution of all works and functions associated with the management, operation, maintenance and improvement of the highway asset including how the activities are monitored to ensure compliance with Council policies

### 13.3 Legal Requirements

13.4 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. Important clauses regarding high maintenance are provided in Appendix A. In particular, Section 41 imposes a duty to maintain highways maintainable at public expense. There is no definition in the Act regarding the level of maintenance required although national codes have been produced to offer some guidance. The document, “Well-Managed Highway Infrastructure: A Code of Practice (October 2016)” produced by the Roads Liaison Group, makes recommendations for surveys and inspections of the adopted highway network, except where local constraints or demands have required local solutions

**New Roads and Street Works Act 1991 (NRSWA):** 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. NRSWA mandates the coordination of street works to minimise disruption. This includes joint planning of works by different utilities and authorities to avoid repeated excavations of the same stretch of road. Safety Measures: Comprehensive safety measures must be in place for all street works

**The Traffic Management Act 2004 (TMA):** This places a duty on Highway Authorities to ensure the expeditious movement of traffic on their road network

and networks of surrounding authorities. This act was introduced to tackle congestion and disruption on the road network. The TMA places a duty on local authorities to make sure traffic moves freely and quickly on their roads and the roads of nearby authorities. The TMA gives councils more tools to manage parking policies, coordinate street works and enforce some moving traffic offences.

### 13.5 National Guidance

13.6 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”, 2018, CSSW, 2018
- “Highway Inspection Defect Recording Manual”, CSSW, 2018

## 14.0 ROLES, RESPONSIBILITIES AND COMPETENCIES

14.1 The roles, responsibilities and competencies required of those involved in managing the Council's highway asset are defined in Table 2 below;

| Role | Responsibility |
|---|---|
| Councillors | Approve the use of this document as Council policy. |
| Corporate Manager Highways Services | Developing new approaches and solutions to diverse and complex issues, working in new and challenging fields. The post is required to interpret legislation and national/regional policy initiatives to ensure that our internal policy and procedures comply. This includes within the service as well as corporately and includes fundamental reviews of existing policies and procedures. This post holder also provides that key link with Corporate Lead Officers and work with other Corporate Managers in ensuring that teams are managed consistently to meet strategic and corporate objectives and that these are effectively co-ordinated and implemented across all service areas |
| Service Manager Highway Maintenance | Develop the policy and standards to be used, ensure their effective implementation, monitor the results and undertake an annual update. |
| Service Manager Highways Development | Develop the policy and standards to be used, ensure their effective implementation and ensure that new assets are compatible with the standards of the service and provide the annual ASOR reports. |
| Highway Inspectors | Carry out inspections according the Councils policy - Code of Practice<br>Highway Safety Inspection and Response on County Roads, recording the appropriate data for input into the Asset Management system. |
| Works Leaders | Prioritise the cyclical preventative and reactive programme of defect rectification and contribute to the prioritised programme of planned maintenance. |
| Works Gangs | Carrying out remedial and cyclical works as instructed and record the required data for input into the Asset Management system. |
| Contractors | Carry out repairs as instructed and as specified and record the required data for input into the Asset Management system. |

*Table 2 - Roles and Responsibilities*

### 14.2 Competencies and Training

14.3 The Council is committed to continual staff development and training. It is important to ensure that those implementing the HAMP are provided with the combination of training, skills, experience and knowledge to them to perform the task(s) efficiently, effectively and safely.

14.4 It is important that all those involved in the process of highway maintenance understand the extent and nature of the Council's, as the Local Highway Authority, legal obligations for highway maintenance, and how these relate to their particular responsibilities, including the important distinction between duties and powers.

14.5 It is therefore implicit that for each component of the Council's maintenance strategy that those involved in the process will have received training to enable them to demonstrate the necessary level of competence.

14.6 The Council shall provide the necessary training by both in-house and external bodies to ensure that support is provided for such competence to be maintained. On appointment, all Ceredigion highway inspectors will take part in and internal induction and training programme. This will be followed by formal external training and professional qualification. Further training will be provided as appropriate to ensure continual professional development.

14.7 All Ceredigion Highway Inspectors are trained to City and Guilds 6033 - Units 301 and 311. Additional training will be provided to ensure compliance with the new code, including any regional or national Highway Inspector Competency Scheme or Accreditation.

UNIT 301: HEALTH AND SAFETY

Intended to provide appropriate basic health and safety training for highways inspectors, to give them an appreciation of how to carry out a basic risk assessment and assist them to work safely on the highway.

UNIT 311 - HIGHWAY INSPECTION TECHNICAL

Intended for those carrying out highway inspections in their first year of appointment and as a useful refresher for more experienced highway inspectors. The course provides a good basic knowledge of all areas of highways maintenance and inspection in which they might be involved.

## 15.0 COST RECORDING

15.1 The cost of the activities required to maintain the highway are recorded to enable them to be monitored and managed. The coding used to record costs is shown below in Table 3.

15.2 Highway maintenance costs are allocated to one of the following categories.

| Cost Category | Activity |
|---|---|
| Planned Maintenance - Preventative | Planned maintenance activities that are designed to ensure that more expensive future repairs may not be needed. |
| Planned Maintenance - Corrective | Planned maintenance activities that correct the condition of the asset and which would not cost significantly more if delayed. |
| Routine Cyclic Maintenance | Scheduled works consisting of preventative activities that are based on a prescribed time interval. |
| Routine – Reactive Maintenance (Emergency) | Reactive repair of potentially safety defects identified from inspection or customer complaint / request for service. |
| Routine - Reactive Maintenance (Non-Emergency) | Other less urgent minor maintenance repairs |
| Routine – Inspection and Survey | Cost of specialist inspection and surveys |
| Operating Costs | Costs of operating elements of the asset |
| Loss | Money expended that is effectively “lost” to the Council from which no benefit to the asset or user is gained. |
| Improvements | Works that add new infrastructure to the asset. |

*Table 3 - Cost Recording Categories*

## 16.0 DATA MANAGEMENT

### 16.1 Types of Data

16.2 The types of data required to manage the highway assets are:

**Inventory**: the number, location, size, type, age and component make up of each asset.

**Condition**: measurement and rating of the condition of the asset from testing or visual inspection.

**Inspection**: details of the inspection regime, inspection results and actions initiated

**Use**: details of the use of assets in the form of data such as traffic volume counts, heavy vehicle routes, etc.

**Safety**: details of accidents and incidents that occur on the asset

**Cost:** details of the unit cost and total cost of activities to enable cost benchmarking. Details of the amount spent annually to maintain or improve the asset.

16.3 The asset data is used for;

- Monitoring of, and reporting on, the condition of components of the overall highway asset
- Prediction and reporting of funding needs
- Identification and prioritisation of maintenance works
- Monitoring and reporting of performance (key performance indicators)
- Assessment of the whole life cycle of individual assets or asset components
- Asset valuation and depreciation cost analysis
- Public information to provide greater transparency

### 16.4 Asset Categorisation

16.5 For the purpose of this document and for all highway asset management reporting, the Council has adopted the categorisation used in the Chartered Institute of Public Finance and Accountancy CIPFA Transport Asset Code as shown below.

| **Level 1**<br>**Asset type** | **Level 2**<br>**Asset group** | **Level 3**<br>**Components that level 2 implicitly covers** |
|---|---|---|
| Carriageway | Area (square metre) based elements<br>• Flexible pavements<br>• Flexible composite<br>• pavements<br>• Rigid concrete pavements<br>• Rigid composite pavements | • Pavement layers<br>• Other surface types, e.g. paved<br>• Central reservation, roundabout, lay-by, traffic island, etc<br>• Earthworks (embankments and cuttings, retaining walls height <1.35m)<br>• Traffic calming<br>• Fords and causeways |
| | Linear elements | • Kerbs<br>• Line markings<br>• Road studs<br>• Highway drainage elements (gullies, drains, etc, but not large structures)<br>• Boundary fences and hedges<br>• Hard strip/shoulder verges/vegetation |
| Footways and Cycleways (Connected to the highway or segregated) | • Footways<br>• Pedestrian areas<br>• Cycleways<br>• Shared Use Paths | • Pavement layers<br>• Other surface types, e.g., block paving,<br>• unbound materials |

| Level 1<br>Asset type | Level 2<br>Asset group | Level 3<br>Components that level 2 implicitly covers |
|---|---|---|
| Structures | • Bridges (span >1.5m)<br>• Cantilever highway sign<br>• Chamber/cellar/vault<br>• Culverts (dia/span >0.9m)<br>• High mast lighting columns (height >20m)<br>• Retaining walls (height >1.35m)<br>• Sign/signal gantries and cantilever highway signs<br>• Structural earthworks, e.g. strengthened/reinforced soils (all structures with an effective retained height of 1.5m or more)<br>• Subway: pipe<br>• Tunnel (enclosed length of 150m or more)<br>• Underpass/subway: pedestrian (span of 1.5m or more)<br>• Underpass: vehicular<br>• Special structure | All elements identified on the CSS inspection pro forma for smaller water-carrying structures are considered as highway drainage |
| Highway Lighting | • Lighting columns<br>• Lighting unit attached to wall/ wooden pole<br>• Heritage columns<br>• Illuminated bollards<br>• Illuminated traffic signs | • Column and foundations<br>• Bracket<br>• Luminaires<br>• Control equipment, cables<br>• Control gear, switching, internal wiring cabling (within ownership) |

| Level 1<br>Asset type | Level 2<br>Asset group | Level 3<br>Components that level 2 implicitly covers |
|---|---|---|
| Street furniture | • Transport<br>• Highway<br>• Amenity | • Traffic signs (non-illuminated)<br>• Safety fences<br>• Pedestrian barriers<br>• Street name plates<br>• Bins<br>• Bollards<br>• Bus shelters<br>• Grit bins<br>• Cattle grids<br>• Gates<br>• Trees/tree protection, etc<br>• Seating<br>• Verge marker posts<br>• Weather stations |
| Traffic management systems | • Traffic signals<br>• Pedestrian signals<br>• Zebra crossings | Different types including loops |
| | Traffic/Pedestrian/Cycle counters | Complete installation including loops |
| | • Information systems<br>• Safety cameras | • Variable message signs<br>• Vehicle activated signs<br>• Real time passenger information |
| Land | • Freehold land<br>• Land rights | Features on the land are not taken into account in the valuation |

### 16.6 Data Storage

16.7 Data for each asset is held electronically on the various software systems shown in Table 4 below:

16.8 Ceredigion County Council Highways and Environmental Services are currently using the Symology Insight Infrastructure Asset Management System for all assets. Several other software systems are used for specialist functions.

*Table 4 - Software Systems*

| Asset Information Types | | Carriageways | Footways & Cycleways | Structures | Street Lighting | Drainage | Street Furniture | Traffic Management |
|---|---|---|---|---|---|---|---|---|
| 1 | Asset register | Symology Insight Infrastructure Asset Management Systems<br><br>WDM | Symology Insight Infrastructure Asset Management Systems<br><br>WDM | Symology Insight Infrastructure Asset Management Systems | Symology Insight Infrastructure Asset Management Systems | Symology Insight Infrastructure Asset Management Systems | Symology Insight Infrastructure Asset Management Systems | Sentient (VAS) |
| 2 | Safety Inspections | | | | | | | |
| 3 | Condition survey | | | | | | | |
| 4 | Reactive Maintenance | | | | | | | |
| 5 | Cyclic Maintenance | | | | | | | |
| 6 | Planned Maintenance | | | | | | | |

| Asset Information Types | | Carriageways | Footways & Cycleways | Structures | Street Lighting | Drainage | Street Furniture | Traffic Management |
|---|---|---|---|---|---|---|---|---|
| 7 | Streetworks | | | | | | | |
| 8 | Street Gazetteer | | | | | | | |
| 9 | Accident Analysis | AccsMAP | N/A | | | | | |
| 10 | Traffic Data | MetroCount Compass | Drakewell C2-Cloud | N/A | | | | |
| 11 | Customer Contacts | Symology Insight Infrastructure Asset Management Systems<br>Clic (Corporate Customer Contact System) | | | | | | |
| 12 | 3rd Party Claims | | | | | | | |
| 13 | Departmental Finance | Civica Financials | | | | | | |

*Table 4 - Software Systems*

### 16.9 Data Management

16.10 It is essential that we know the quality of the asset data we hold and that appropriate measures are taken to maintain the data and to collect any important data that is not currently held.

16.11 The responsibility for the management of the data relating to each asset group has been assigned to the officer roles indicated below:

| Asset Group | Person Responsible for Asset Data |
|---|---|
| Carriageways | Service Manager (Highways Development)<br>Asset & Design Manager |
| Footways, Footpaths & Cycle ways | Service Manager (Highways Development)<br>Asset & Design Manager |
| Drainage | Service Manager (Highways Development)<br>Asset & Design Manager |
| Structures | Service Manager (Highways Development)<br>Asset & Design Manager |
| Street Lighting | Service Manager (Highways Development)<br>Asset & Design Manager<br>Street Lighting Engineer |
| Traffic Signals | Service Manager (Highways Development)<br>Asset & Design Manager<br>Street Lighting Engineer |
| Non-illuminated signs | Service Manager (Highways Development)<br>Transport Strategy & Safety Manager<br>Senior Traffic Engineer |
| Street Furniture | Service Manager (Highways Development)<br>Asset & Design Manager |
| Verges & Planted Areas | Service Manager (Highways Development)<br>Asset & Design Manager |

16.12 It is the responsibility of the officer in the role shown above to ensure that data relating to the asset group for which they are responsible is updated, verified, validated and reviewed as shown in the following sections and that any actions required to improve data are reported to the Service Manager (Highways Development) and the Asset & Design Manager.

16.13 Overall responsibility for highway asset data quality lies with the Service Manager (Highways Development) (or someone appointed specifically to undertake the role).

16.14 The core data requirements for each of the asset groups have been identified by Ceredigion HAMP 2025-2030 project and can be found in Ceredigion HAMP 2025-2030 Task 2 data assessment sheet.

### 16.15 Updating

16.16 Asset data should be updated following changes to the asset as shown in Table 5 below:

| Type | Timing |
|---|---|
| New Assets – Council Built | Within one month of handover |
| New Assets - Taking in Charge | Within one month of handover |
| Major maintenance e.g. resurfacing, asset renewals | All Asset Groups – within one month of completion |
| Removals | Within three months of confirmation of stopping up order/removal |

*Table 5 - Inventory Update Frequency*

### 16.17 Data Verification

16.18 Any new or updated asset data that has been captured shall be verified prior to entering it into the appropriate software/database.

16.19 Verification by field inspections should be carried out for 100% of any new data (provided by an external source) to be added to any asset management system.

16.20 If the verification inspection identifies less than 90% accuracy the data will be returned to the provider who will be required to update and resubmit their data at no cost to the Council.

16.21 If the verification inspection identifies 90% or more accuracy the data will be entered into the respective asset management system with all identified anomalies corrected.

16.22 Any resubmitted data shall be subjected to the same verification checks as the original data.

**16.23 Data Validation**

16.24 In order to validate data held within the highway asset software/databases sample validation surveys may need to be carried out periodically for all assets.

16.25 A validation survey will compare the data held within the relevant software/database with a site inspection. Sites will be selected randomly to achieve a 5% target, if the accuracy is 90% or above, no further action will be required.

16.26 If the accuracy is below 90%, this should be reported to the Service Manager, Highways Maintenance and an investigation will be undertaken to identify any trends of specific data attributes which are incorrect and the history of the data. The investigation will identify whether the same inaccuracies are affecting the remaining data.

16.27 If the data inaccuracy is found to be more than an isolated incident the Service Manager (Highways Development) will organise the undertaking of a wide scale survey of the asset in order to rectify the erroneous data.

## 17.0 DATA ASSESSMENT & IMPROVEMENT

### 17.1 Annual Data Review

17.2 A review of the data will be undertaken annually. The review is informed by the results of data validation surveys and uses the spreadsheets produced under the CSSW HAMP project to enable an evaluation of the data held. This method uses a core data set recommended by CSSW as the minimum that authorities should hold for each asset group and a method of assessing the quantity and reliability of the data held. This results in a confidence rating for each item of data.

17.3 The review is used to identify data deficiencies and to enable improvement actions to be planned to improve the quality of the data held.

17.4 The results of the latest data review are reported in Table 6 below, by asset group, detailing any data deficiencies and the actions proposed for their improvement. All improvement actions undertaken are reported annually within the Annual Status and Options Report (ASOR).

*Table 6 - Asset Data Improvement Register*

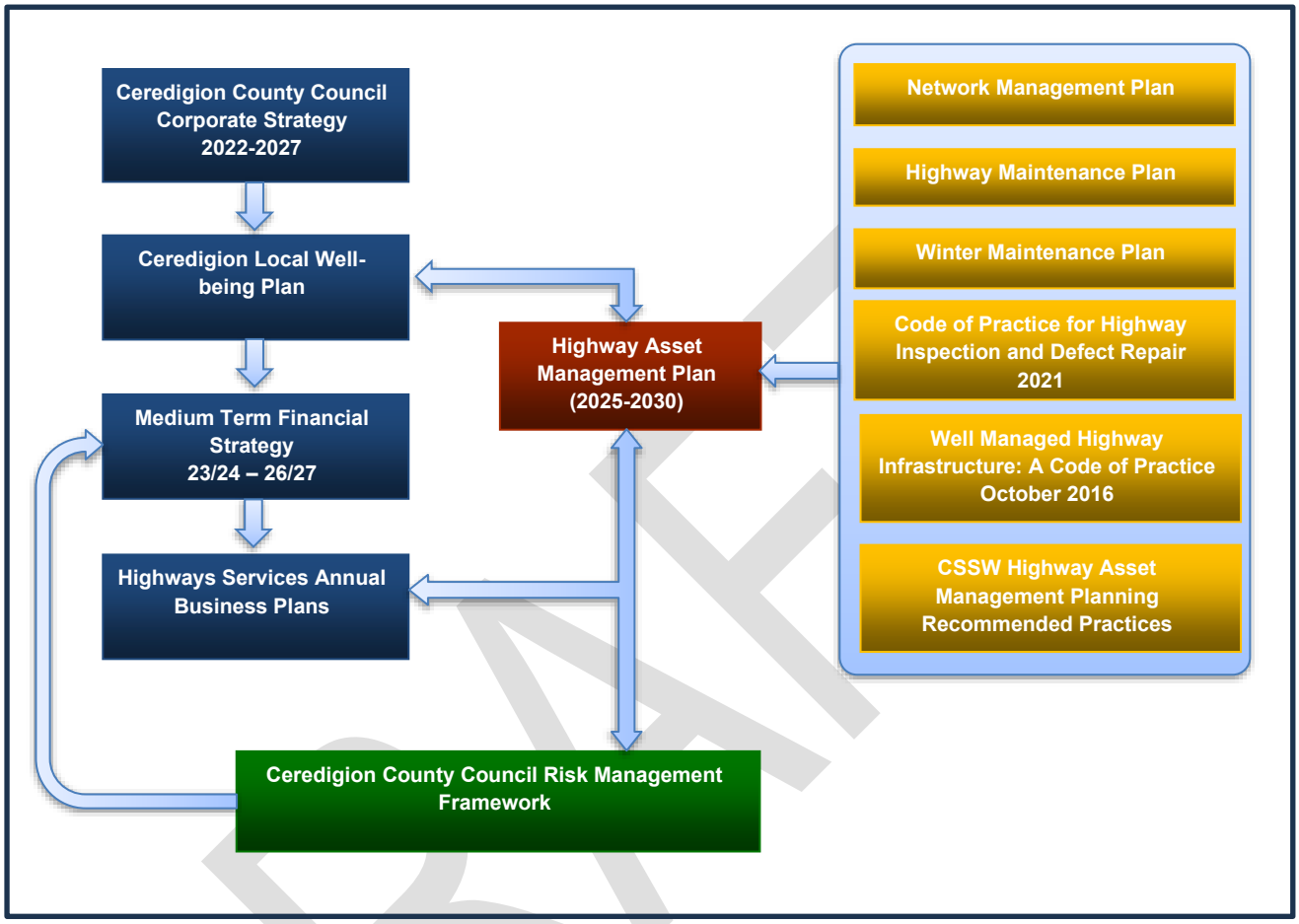
| Data Quality Collected | Data Improvement Action | Date |
|---|---|---|
| **Carriageway Data** | | |
| There is no visual condition data for carriageways that would be useful to corroborate the results given by the machine based condition survey. | All safety defects collated by the Highway Safety Inspector shall be analysed and inserted into the database to assist with prioritising the condition of the carriageway | 2025/26 |
| 100% of the carriageways have machine based condition data. | Review data condition collection cycle to bring this in line with the revised Code of Practice for Highway Safety Inspections (2021) | 2025-27 |
| Machine condition data for Unclassified Roads is not gathered as a set frequency which may be having an affect on the proposed schemes identified by the prioritisation process. | Ensure 'Unclassified Roads are all surveyed using a machine at an interval of no greater than 5 years. Unclassified Roads do not deteriorate as quickly as Classified Roads and it is believed that a survey every 5 years will provide accurate information for the prioritisation process. This frequency will be monitored. | 2030/31 |

| Data Quality Collected | Data Improvement Action | Date |
|---|---|---|
| Most of carriageway surfaces don't have a recorded age in the Asset Management System. Knowledge of this information enables better decisions to be made on maintaining the existing surface. | The treatment date for all carriageway surfaces will be entered into the Asset Management System. | 2030/31 |
| **Footway & Cycleway Data** | | |
| 20% of the footways have no records. These footways are located in the rural environment. | Identify the locations of footways with no records<br>Undertake a survey collecting a Geospatial Reference, length, width, material type and a visual condition rating.<br>Enter information into the database. | 2030/31 |
| A full footway/cycleway hierarchy suitable for Ceredigion County Council has not yet been agreed. (currently relates to carriageway hierarchy) | Confirm the CSSW CoP guidance hierarchy meets Ceredigion County Council needs.<br>Undertake an exercise to allocate a hierarchy to each section of footway.<br>Insert information into the database. | 2030/31 |
| The footway visual condition information undertaken by FNS appears to give an incorrect (too high) level of poor footways | Consider and implement a new visual condition rating.<br>Risk based prioritised condition data collection regime to be implemented | 2030/31 |
| **Street Lighting Data** | | |
| Details of location and age of all cables is unavailable | Record full details of all cable replacements / maintenance work undertaken and insert into Symology | Ongoing |
| **Structures Data** | | |
| Retaining wall data is currently held on an excel spreadsheet with an estimated 70% of the assets being included. | Identify missing retaining walls by undertaking a site survey (prioritise classified roads first)<br>Insert all retaining wall data information into Symology | 2030/31<br><br>2030/31 |

| Data Quality Collected | Data Improvement Action | Date |
|---|---|---|
| Details of location, age, condition and Inspection records of some structural assets are missing from the structures database. | Identify missing structures by undertaking a site survey to undertake assets inventory. | 2030/31 |
| **Drainage** | | |
| Gully cleaning records are currently stored in hardcopy form in a folder within the Office. This information would be easier to access and manage if it was located in an asset management system accessible by all staff. | Insert a step in the gully cleaning process to enter the gully cleaning records into the asset management system | 2030/31 |
| A list of blocked and problem gullies in stored in a Microsoft Word document on the server. This information would be easier to access and manage if it was located in the asset management system. | Insert details of the problem gullies into the asset management system | 2030/31 |
| The drainage asset inventory information held is poor. This data is essential to plan asset replacement and reduce safety risk of failure. | • Implement a system that requires all Highways personnel on site during their day to day duties to identify and record location and type data (as a minimum) electronically to be stored in Symology.<br>• As built drainage information to be uploaded to Symology.<br>• Upload existing data to Symology | 2030/31 |

## 18.0 VOLUME 3 – HIGHWAY MAINTENANCE PLAN

18.1 Relationship with other Council Plans and Strategies




### 18.2 Plan Development

18.3 This plan has been developed in accordance with the County Surveyors Society (Wales) (CSSW) recommended highway asset management planning practices, and the Council 's plans and strategies.

18.4 The plan is consistent with the Council's corporate asset management approach.

18.5 The standards, targets and spending assumptions contained within this HAMP will be monitored and an annual status report produced.

18.6 The report will present a summary of the Council's assets annually and provide information to ensure informed choices can be made regarding future investment levels.

## 19.0 HIGHWAY ASSETS

19.1 The highway asset is made up of **carriageways** (roads), **footways/cycleways**, **bridges/structures**, **streets lights**, traffic signals and street furniture. Their respective numbers are shown in Table 7 below and covered by this plan;

| Asset | Amount |
|---|---|
| Carriageways | 2,153km |
| Footways, cycleways and shared use paths | 220km* |
| Bridges | 834 No |
| Underpass | 1 No |
| Retaining walls | 159 No.* |
| Street Lights | 6,813 |
| Illuminated signs and bollards | 844 |
| Signalised Pedestrian Crossings | 7 |
| Signalised Junctions | 1 |
| Drainage gullies | 45,000* |
| Items of street furniture | 30,000* |

*taken from surveys, recorded or estimated

*Table 7 - Highway Asset Items*

19.2 **Exclusions** – The plan does not cover assets that are the responsibility of other services or authorities within or external to the Council. These include;

- Trunk Roads
- Public Rights of Way
- Car Parks
- Land Drainage assets
- Non-adopted carriageways / footways
- Non-adopted Council highway assets (Corporate Estate)
- Coastal defences

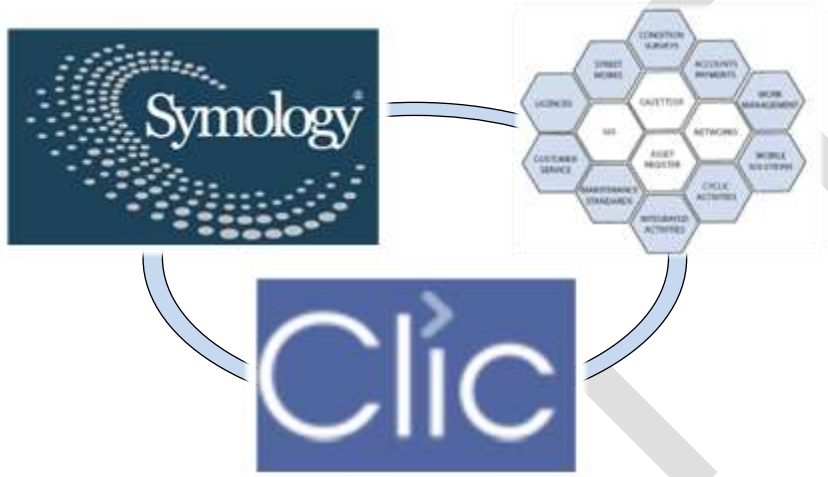
- Speed cameras/CCTV/ANPR
- Community or transferred Assets
- Corporate non adopted structures/buildings
- Bus shelters (community and national)
- Decorative or Seasonal lighting

19.3 **Data Accuracy -** Asset data for some assets is currently limited. Sample surveys and local estimates have been used in order to include them within this plan. To ensure that future plans are based on better information a Data Improvement Plan has been created to support this plan (see Volume 2).

## 20.0 CUSTOMER EXPECTATIONS

20.1 This plan has been based on a review of customer expectations and external demands towards the Highways Service.

20.2 Customer contact in relation to the highway assets is recorded in the Council's corporate customer management system, CLIC. Symology (Insight) asset management system has been developed to work alongside CLIC to manage specific Highways Service requests and demands.




20.3 **Asset Growth** - Over the last 5 years 2 km of new carriageways and 8 km of new footways or cycleways have been created and added to the asset. These additional assets create need for inspection, maintenance management and associated funding in future years as they age.

20.4 **Weather** - This plan assumes average winter conditions. If, as has happened recently, an unseasonably harsh winter is experienced funding will need to be diverted to provide the Winter Service and it can be expected that additional damage to road surfaces will occur and the Council will need to repair significantly more pot holes.

20.5 **Flooding** - Some areas are prone to flooding which can damage the road. When flood events occur, resources are deployed to respond. In extreme situations this may involve clearing landslips or repairing parts of the roads eroded by flood waters. Such events if they occur may impinge upon the ability to meet the targets in this plan unless additional resources (and funding) are made available. Particularly prone to flood damage will be the bridge/structure asset. Flooding and extreme weather conditions are becoming more prevalent.

## 21.0 RISK MANAGEMENT

21.1 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

21.2 A revised Code of Practice (CoP) 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.

21.3 The most significant change to the previous guidance, proposed by the new CoP, is the greater emphasis of a risk based approach and diminished emphasis on prescriptive guidance to all decision making to be undertaken by each Council individually.

21.4 CSSW have developed a method in response to the CoP that it recommends authorities adopt as a minimum standard. Ceredigion have adopted this CSSW CoP along with locally approved standards in order to ensure compliance with the new guidance documentation and to ensure the effective maintenance of the highway assets.

21.5 The method includes development of Hierarchy based in some part on traffic volumes (usage), Inspection Regime and Defect Response Regime for the highway assets, along with recommended minimum standards for inspection and defect repair.

21.6 Ceredigion County Council further adopted the risk based approach for Highway Safety Inspection and Response on County Roads in 2021.

## 22.0 PROCUREMENT

22.1 Works associated with the highway asset are procured using a combination of internal and external resources. All external resources are procured in accordance with the current corporate Contract Procedure Rules to ensure compliance with the Procurement (Wales) Regulations 2024.

22.2 The day to day maintenance of the highway asset is mainly undertaken by in house Council resources. Where specialist skills are required, external contractors are employed through Contract Frameworks that the Council is party to. The details of how the service is delivered for each asset is shown in Table 8 below.

| Asset | Work Type | In-House or Contractor | Contract Details |
|---|---|---|---|
| Carriageway | Routine and Reactive | Internal Workforce | NA |
| | Planned | Resurfacing –Contractor | Annual Contracts or Call offs |
| | | Surface Dressing – Internal Workforce | Annual Contract |
| Footways and Cycleways | Routine and Reactive | Internal Workforce | NA |
| | Planned | Reconstruction – Contractor | Site Specific Contract |
| | | Resurfacing – Contractor | Annual Contracts or Call offs |
| | | Slurry Seal – Contractor | Annual Contract |
| Street Lighting | Routine and Reactive | Contractor | Term Contract |
| | Planned | Column (New / Replacement) –Contractor | Term Contract |
| | | Luminaire (New / Replacement) –Contractor | Term Contract |

| Asset | Work Type | In-House or Contractor | Contract Details |
|---|---|---|---|
| Highway Bridges and Structures | Routine and Reactive | Internal Workforce and Contractor | Term Contract |
| | Planned | Contractor | Site Specific Contract |
| Traffic Signals | Routine and Reactive | Contractor | Term Contract |
| | Planned | Contractor | Term Contract |
| Street Furniture | Routine and Reactive | Internal Workforce | NA |

*Table 8 - Asset Work Contracts*

22.3 Works/Contracts will be procured using the;

- South West Wales Regional Civil Engineering Contractors Framework (SWWRECF)
- Council's Dynamic Procurement System (DPS) Framework.
- Specific Council term framework contracts
- Other Council Term frameworks contracts available for use by the Council
- NMWTRA term framework contracts
- Welsh Government framework contracts

22.4 These contain performance monitoring criteria which provide the Council with a mechanism of reviewing the contracts that can be used to improve future contracts.

## 23.0 STATUTORY UNDERTAKER ACTIVITY

23.1 The condition and management of the highway is affected by third party works. The management of these third-party activities is governed by legislation, namely the;

- New Roads and Street Works Act (NRSWA) 1991 and
- Traffic Management Act 2004

23.2 All Statutory Undertaker activity undertaken on the Council's highway network is co-ordinated by the **Street Works Team** and recorded within the Insight 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.

23.3 The detailed procedures are used for undertaking this work including procedures for;

- **Streetworks licenses**; a license that Statutory Undertakers have to apply for in order to work on a Council road
- **Streetworks register**; the register kept by the Council that records where and when Statutory Undertakers are working on the highway
- **Works Noticing**; the notices that have to be issued prior to works commencing, that should be issued by the organisation that is carrying out the works (which may be the Council)
- **Works Restrictions**; preventing works being carried out on roads that have been recently resurfaced for a period of time after completion of those works
- **Works co-ordination**; coordinating works in an appropriate sequence and at appropriate intervals where more than one organisation needs to work on the same street.
- **Designation of protected streets**, where the Council can assign a protection on specific streets being used by Statutory Undertakers.
- **Re-instatement Standards**; the Councils specification for what the standards of reinstatement should be on categories of road including materials and depths etc.
- **Apparatus affected by highway works**: where the Council notifies Statutory Undertakers where road works are planned to ensure that

provision is made for the protection or diversion of the existing Statutory Undertaker apparatus

23.4 Statutory Undertaker works have a significant effect upon the condition of the highway and the users perception of it. In the future, ASOR reporting will reference the number of openings made and the standards of reinstatement being achieved such that a true picture of condition and its causes are known.

23.5 Street works are necessary to provide and maintain utility and transport services but can be disruptive to road users. To minimise this disruption the post holder will have the discretion/freedom to act by way of negotiation, cooperation, compromise whilst maintaining and promoting close working relationships with internal and external stakeholders, Elected Members, colleagues and outside organisations with regards to the timing of such utility works, which often entail the necessity for a road closure in order to safeguard the public and the contractor's staff. Managing street works has major influence on how the highway network is disrupted thus ensuring that other Council Services and this Service functions at key event times. For example, to mitigate clashes with highway planned maintenance work programmes, school bus transport, public transport, polling days and other events requiring the use of the highway 'space' such as special events including Barley Saturday, Christmas Faires, Rali Ceredigion and other activities that the public need the use of the highway for enjoyment.

23.6 In 2024-25 the service embarked on a utility reinstatement coring programme. This aims to identify poor workmanship (below agreed standards) undertaken by utility companies and their contractors. The aim is to pursue these utility companies to rectify their works so as not to cause further long term damage to the Councils assets and the associated cost to the Council.

**23.7 Third Party Claims**

23.8 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.

23.9 All Third party claims are currently processed by highway officers, primarily the operational managers, and when required are communicated to the Council's Insurance team. An interface will be developed between the Insurance team's systems and the Highway Asset management system (Insight) to allow officers to disseminate the claims data in order that adjustments can be made to

working practices if required. The Insight system reporting facilities will be developed to allow transparent and expedient data extraction by the Council's Insurance officers.

23.10 To review third party claims, Highways Managers will be able to run reports from the Insight system  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.

23.11 The Service Manager Highways Maintenance along with the Service Manager Highways Development will review the information and include a summary of the claims data in the ASORs.

## 24.0 SERVICE STANDARDS

Under Section 41 of the Highways Act 1980, the Council as the Local Highways Authority, has a statutory duty to maintain, as far as is reasonable, the highway so that it is safe for use and fit for purpose by the public.

24.1 The service standards for each asset have been set in Table 9 below with regard to;

| Service Standard | Performance Standards |
|---|---|
| Safety | • The number of incidents/defects requiring an immediate (2hr) response<br>• The number of "safety" defects requiring a (24hr) response |
| Condition | • The percentage of the asset in a "poor" condition<br>• The percentage of the asset that should be "considered for maintenance"<br>• The number of maintenance defects requiring a 7-day response |

*Table 9 - Asset Service Standards*

24.2 Inspection and reactive repair standards are set out in the Council's highway maintenance manual which in turn refers to the code of practice for highway safety inspection and defect response 2021. This plan assumes those standards will be consistently met.

24.3 The specific standards that users can expect from each highway asset category during the HAMP period are shown in sections .

24.4 **Strategies** will be applied to achieve the relevant standard targets. The strategy for each asset category is given in the sections below. The strategies include predictions of the type and quantity of work required to deliver the appropriate service standards. This will involve prioritising repair or replacement of asset elements in a manner designed to achieve the standard for the best possible short and long-term cost.

24.5 **Work programmes** will be generated annually based on the results of inspection and condition surveys using the strategies described in this document. These programmes will be dynamic based on progress and the funding available.

24.6 The amount of **funding** indicated below in the relevant asset category sections is designed to achieve the relevant standard described in this plan. Significant changes to the funding provided each year will result in the plan standard needing to be revised as a result.

## 25.0 TRAFFIC MANAGEMENT

25.1 The Council as Local Traffic Authority has a duty to manage the road network to secure the expeditious movement of traffic on the network and facilitate the same on road networks for which another Council is the traffic Authority. The duties are set out in the Traffic Management Act 2004 and the arrangements that the Council has in place to meet these duties is detailed below.

25.2 **Traffic Manager -** The Traffic Manager for Council is the Corporate Lead Officer for Highways and Environmental Services.

25.3 **Traffic Disruption -** The Council has in place processes for ensuring that the Council identifies the cause, or potential causes of road congestion or other disruption and takes action in response to (or in anticipation of) anything so identified.

25.4 **Policies and Objectives -** The Council will develop specific policies or objectives in relation to different roads or classes of road on its road network and have procedures in place to monitor the effectiveness of their decision-making processes and the implementation of their decisions and assess their performance in managing their road network.

25.5 **Traffic Sensitive Streets -** The county has a number of streets that due to their location and physical characteristics, the amount or make up of traffic that use them and the consequence for undertaking works to them have been designated as traffic sensitive and have working time restrictions placed upon them.

## 26.0 NETWORK HIERARCHY

26.1 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.

26.2 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 "4RA Annual Highway Asset Risk Review 2018".

26.3 Details of the hierarchies used for each asset group can be found in Appendix B. The details of the hierarchy allocated to each individual asset are held in the Council's asset management systems (Insight).

26.4 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. When this is completed the assets with differing hierarchies between the Council and a neighbouring Council will be listed in **Appendix B** along with the reason for the difference.

26.5 The hierarchies are **reviewed** on an ongoing basis where changes to the asset occur and or significant changes in use happen (e.g. changes in traffic volume). As a minimum the hierarchy is reviewed and confirmed **every 5 years**. Records of the review are held in the "Ceredigion County Council 4RA Annual Highway Asset Risk Review". Any resultant recommended changes to the hierarchy will be proposed to Council and their approval recorded.

## 27.0 INSPECTION REGIME

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

### 27.2 Types of Inspection

27.3 The Council undertakes the following types of inspection:

**Reactive Inspections/Response**: inspections undertaken in response to the notification to the Council of potential defects by other sources (Council employees, members of the public, emergency services etc.).

**Planned/Routine Inspections**: A regime of proactive/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.

Planned routine inspections are a combination of;

- **Driven Inspections**: inspections of the carriageway are undertaken by 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.

### 27.4 Inspection Frequencies

27.5 **Reactive Inspections –** These are to be carried out to identify any required maintenance works following requests for service from the public or third party. These are relayed to the inspectorate via the service's Infrastructure Asset Management System, namely Symology Insight. The request is given a priority rating by the corporate call centre for response / inspection/investigation. All reported defects should be inspected within the allocated time period following receipt, unless they are already known to the inspector and have been previously entered on the Council's Insight system for rectification on a priority basis.

All reactive inspections are recorded on a mobile device. Any identified defects falling within prescribed intervention criteria are entered onto the Insight defect

database with instructions to make safe and/or repair within prescribed response times.

27.6 **Routine Inspections** – Thes are undertaken on a planned regular frequency. The frequency is based on the Network Hierarchy and is determined using the CSSW Highway Asset Risk Review Method and is reviewed every 2 years. The frequency of routine inspections is shown in Appendix C along with the CSSW minimum recommended standards.

27.7 Changes in the stipulated frequencies must be approved by the Corporate Lead Officer for Highways and Environmental Services before implementation.

27.8 In addition the Council has authorised deferment of the inspection regime in its entirety during periods where inspection is not possible. The authorisation form for the suspension of highway inspections is provided as Appendix D.

27.9 Safety Inspections shall normally be carried out at the fixed intervals set out in Appendix C. However, the programme of inspections may be suspended for extraordinary reasons. These include but are not restricted to statutory or fixed holidays, periods of exceptional weather where flooding or snow prevents a proper inspection of the road network, and other emergency or extreme events. Where inspections are suspended for periods of 2 days or less the roads and footways which were due to be inspected on these days shall be inspected within 2 weeks of the date that inspections resume. Where the period of suspension exceeds 2 days then, with the approval of the Corporate Lead Officer Highways and Environmental Services, and the Cabinet Member, the whole inspection programme shall be rolled forward/reset and resumed as if the period of suspension had not happened. Where approval is given to roll forward the inspection programme the reasons for and duration of the suspension must be logged on the Asset Management System.

27.10 **Inspection Tolerance** - A tolerance should be included to allow for unavoidable incidences such as bad weather, training, inspector sickness etc. When these are necessary it is recommended that the tolerance applied to each inspection frequency is 50% of the prescribed inspection interval or 3 months (whichever is the least).

27.11 Any changes to the frequencies must be approved by the Corporate Lead Officer for Highways and Environmental Services before they are implemented.

27.12 **Operational Factors** - Inspections shall be carried out on a route optimisation basis to ensure maximisation of operational efficiencies with the resources

available. This will result in certain sections of the network now classified as having a lower frequency of inspection being inspected at a higher frequency than specified, for example, a section of the network specified as being inspected on a frequency of 3 months actually being expected on a monthly return period if it is operationally more efficient.

27.13 **Inspection Schedule** - Inspection routes (in compliance with the regime above) are held in the Council's asset management system (Insight). The asset management system (Insight) contains details of the inspection regimes, the inspections undertaken and the date of the next scheduled inspection. 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.

27.14 **Inspected Assets** - The assets inspected during the routine inspection include (but are not 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

*#visual only*

** walked inspection only*

27.15 Records of the inspection and the resulting observations are recorded as the inspection is undertaken using a hand-held electronic device and directly loaded into the Council's Asset Management System (Insight).

## 28.0 CONDITION ASSESSMENTS

28.1 Ceredigion County Council undertake the following condition assessments on their highway assets

| CARRIAGEWAY INSPECTIONS |
|---|
| **SCANNER** (Surface Condition Assessment of the National Network of Roads)<br><br>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. The annual SCANNER survey coverage is;<br><br>A Class – 100% one direction<br><br>B Class – 100% one direction<br><br>C Class – 50% one direction<br><br>U Class – 20% one direction |
| **SCRIM** (Sideway-force Coefficient Routine Investigation Machine)<br><br>SCRIM measures wet road skidding resistance and the results of the survey are held offsite by WDM and accessed via the WDM / WIP online interface. The annual SCRIM survey coverage is;<br><br>A Class - 100% both directions<br><br>B Class - 100% one direction |
| **Visual Condition Assessment**<br><br>Visual condition is recorded during the Highway Safety Inspection process. |

28.2 SCANNER and SCRIM surveys are arranged via a central contract managed by the Welsh Government IRIS contract and funded by the Council. The contract covers A, B and C Roads. Unclassified road surveys are funded locally by the Council as required.

| FOOTWAY/CYCLEWAY INSPECTIONS |
|---|
| **Footway Network Survey (FNS)**<br><br>The FNS survey is a visual assessment undertaken by external contractors, WDM. This survey is carried out once every 5 years. |
| **Visual Condition Assessment**<br><br>Visual condition is recorded during the Highway Safety Inspection process. |

28.3 **Structures and Bridges** are inspected in accordance with the requirements of DMRB CS450. This will include all bridges, culverts and retaining walls

| BRIDGE & STRUCTURE INSPECTIONS |
|---|
| **Visual Condition Assessment**<br><br>Structures are inspected using two levels of inspection and frequency<br><br>i. **General Inspections (GIs')**; GIs are visual inspections, possibly with some hands-on and basic assessment e.g. hammer tapping and measurements.<br><br>ii. **Principal Inspections (PIs)**; PIs are a more detailed visual inspection, with hands-on assessment of most/all elements plus detailed assessment e.g. hammer tapping, half-cell, chloride measurements etc.. |

28.4 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 (Insight). Each bridge asset is inspected biannually.

28.5 A **Principal Inspection** involve the creation of a detailed report along with the data recorded on the form. The results of these inspections are also entered into the CCC Bridge Management System (Insight). The frequency of Principal inspections is once every 6 years, but this frequency can be extended through the use of risk assessments (PIIRA) carried out in accordance with CG450.

28.6 **Street Lighting** – The condition of the street lighting assets is assessed using three types of specialist inspection and testing regimes;

| **STREET LIGHTING INSPECTION AND TESTING** |
|---|
| **Visual Condition Surveying**<br><br>A visual condition assessment is carried out on an adhoc basis by an external contractor during maintenance visits with any obvious defects or poor condition assets being reported to the Street Lighting Engineer and actioned accordingly. |
| **Lighting Column Structural Testing**<br><br>A programme of structural testing has been undertaken on all lighting columns using an external contractor. The results of the structural testing provide condition rating as follows:<br><br>• Red: Programme for removal (normally within 5 days)<br>• Amber: Retest within 3 years<br>• Green: Retest within 6 years<br><br>The results of the structural testing are entered onto the Insight asset management system. |
| **Electrical Safety**<br><br>Electrical testing is carried out by an external contractor on all equipment. The results of the electrical testing are entered onto the Insight asset management system. |

## 29.0 REPAIR REGIME

29.1 Defects identified via inspection or 3rd party notification, are prioritised for repair based upon the risk that is posed to users. This is undertaken as set out below.

29.2 **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 in Table 10 below;

| Defect Categories | Description | Response Times | |
|---|---|---|---|
| | | CCC | CSSW National Minimum |
| Critical Defect<br>**Cat 1** | 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,<br>• Requiring an immediate response to make the site safe | 2 Hours# | 2 Hours# |
| Safety Defect<br>**Cat 1.1**<br>**Cat 1.5** | Defects that pose an imminent risk of injury to road users,<br><br>Requiring a response as soon as possible to remove a potential risk of injury to users | By End of Next Calendar Day (CHSR, CH1, CH2)<br><br>Within 5 Calendar Days (CH3, CH4) | By End of Next Working Day (CHSR, CH1, CH2)<br><br>Within 5 Working Days (CH3, CH4) |

| Defect Categories | Description | Response Times | |
|---|---|---|---|
| | | CCC | CSSW National Minimum |
| Maintenance Defect **Cat 2.1** **Cat 2.3** | Defects that warrant treatment to prevent them deteriorating into a safety defect prior to the next scheduled inspection | 1 month (CHSR, CH1, CH2) | 1 month (CHSR, CH1, CH2) |
| | Requiring a response to prevent them becoming a safety defect | 3 months (CH3, CH4) | 3 months (CH3, CH4) |
| Programmed Repairs Cat 3 | Defects that warrant treatment, in order to prevent them deteriorating to such an extent that additional works or costs are incurred. | As per the local works programme | As per the local works programme |

*Table 10 - Defect Categories*

#Critical defects should be made safe at the time of the inspection if practicable or attended by the inspector until such time as the defect can be made safe. Making safe may constitute displaying warning notices, coning or fencing off to protect the public from the defect.

29.3 Details of the defect types identified and the intervention levels that have been prescribed for each defect category are provided in **Appendix D**.

29.4 Operational works instructions (orders) are generated automatically using the Council's asset management system (Insight), following the input of the inspection records.

29.5 On completion of the repair the works representative records details of the type of work undertaken, the materials used and the dimensions of the repair onto the Council's asset management system with a photograph of the completed work. The defect will only be deemed 'fully repaired' once all records have been entered into the asset management system.

## 30.0 HIGHWAY SCHEME PRIORITISATION

30.1 Assets which are identified as requiring maintenance, repair, strengthening or replacement are included in a works programme of future potential schemes and projects. A risk-based prioritisation process is used to identify which of the proposed schemes should be undertaken during the following year/s.

30.2 All schemes that need to be planned are assessed and prioritised. This list is used as a basis to be entered onto the annual programme in accordance with the standards, strategies & budgets for each asset and treatment type as detailed in the Highway Asset Management Plan (HAMP). This list contains more schemes that it is possible to fund within the period of one financial year. As such the list of prioritised schemes expands to works that require treatment for the next two to three years and beyond. Schemes from this list can be accelerated as necessary should delays occur with the annual work programmes. An annual programme (Capital and Revenue) for each asset category is prepared from the rolling programme prioritised list.

30.3 The current scheme prioritisation tool utilises a cost benefit ratio matrix (CBR) to determine major scheme/project prioritisation. This tool is currently being reviewed to reflect the Corporate Strategy 2022-2027 which focuses more on carbon reduction and wellbeing of future generations.

## 31.0 CARRIAGEWAY MAINTENANCE

31.1 The Council manages 2,153km of roads which consist of

| Road Class | Length |
|---|---|
| Class 1 and 2 (Types A & B) | 484km |
| Class 3 (Type C) | 841km |
| Unclassified (Type U) | 828km |

31.2 Ceredigion is a predominantly rural county and this is reflected in the fact that 88% of the roads maintained by the Council are in a rural setting.

31.3 The Council has adopted a hierarchy of road so that inspection and repair regimes can reflect the different levels of use. The carriageway hierarchy definitions are provided in **Appendix B**.

### 31.4 Safety Targets

31.5 The Council's target response times for carriageway defect repairs are:

| Repair of Safety Defects | Standard |
|---|---|
| Critical defects shall be rectified or made safe within | 2 hours |
| Safety defects on carriageway hierarchy strategic routes, main distributor routes and secondary distributor shall be rectified or made safe# | By the End of Next Calendar Day |
| Safety defects on carriageway hierarchy link roads and local access roads shall be rectified or made safe # | 5 days |

#definition of critical and safety defects for carriageways are provided in **Appendix A**

### 31.6 Example Defects

31.7 The examples shown below are typical of the sort of defect that can occur in the highway and would provide a different response

| Defect Examples | |
|---|---|
| **A CRITICAL defect** is one that poses immediate danger to users such that it is appropriate to guard it until it can be coned off or repaired. Such defects occur rarely but warrant prompt attention to ensure user safety. The response to a critical defect refers to the time to attend the site and to make the safe site. |  |
| **A SAFETY defects** are those that pose an imminent risk of injury to users. These defects require a response as soon as possible to remove the potential risk. The most common safety defects on carriageways are potholes. The size and location of the pothole are considered when allocating the defect category. |  |

31.8 **Maintenance defects** are defects that pose a lesser danger to users and are typically repaired to prevent them deteriorating into safety defects. The time to repair them reflects the reduced risk they pose to users.

31.9 The Council's targets for carriageway maintenance defect repairs are:

| Repair of Maintenance Defects | Standard |
|---|---|
| Maintenance defects on carriageway hierarchy strategic routes, main distributor routes and secondary distributor shall be rectified or made safe # | 1 month |
| Maintenance defects on carriageway hierarchy link roads and local access roads shall be rectified or made safe # | 3 months |

#definition of maintenance defects for carriageways are provided in **Appendix A**

31.10 It should be noted that many defects exist on the network that are **too small** to warrant cost effective treatment.

### 31.11 Carriageway Condition

31.12 The Council's baseline targets for carriageway condition (measured by machine condition surveys) for the duration of the plan are:

| **Measured Condition (by condition survey)** | | | | | |
|---|---|---|---|---|---|
| Road Class | | **A** | **B** | **C** | **U** |
| Percentage in a **poor condition** shall be kept below | | 3% | 6% | 12% | 12% |
| Percentage that should be "**considered for maintenance**" shall be kept below | | 20% | 20% | 32% | 32% |

31.13 The targets will be reviewed each year following the condition data surveys and any changes that are deemed necessary will be agreed as an addendum to this plan. In addition, road hierarchy designations, i.e., whether a road is sign posted as an A, B, C or recorded operationally as a U road will in future not be the sole determination of that road class. Instead, a risk-based redesignation based on traffic volumes will be used to determine the hierarchy which will lead eventually in an operational context to reclassification to a CHSR, CH1, CH2, CH3, CH4 and CH5. This will be communicated to the services survey contractor, WDM, in order that PI's (Road Condition Indices (RCI's)) correctly reflect/report t correctly. This work is ongoing.

31.14 The photos below provide examples of local roads which could be assessed as being in 'poor' condition or to be 'considered for maintenance'. Roads assessed as 'poor' consist of large areas of defects which affect the structure of the road. Roads assessed as deteriorating have fewer defects and may only exhibit damage to the surface of the road.

| **POOR CONDITION** | | **DETERIORATING** | |
|---|---|---|---|
|  |  |  |  |

## 32.0 CARRIAGEWAY MAINTENANCE STRATEGY

32.1 The strategy for carriageways comprises of:

- the continued repair of minor defects
- capital investment in surface treatment and reconstruction

### 32.2 Repair of Defects

32.3 Defects such as potholes and the like are identified by a regime of inspection and/or notified to the Council by users. Defects are assessed based upon the risk they pose to users and their repair prioritised in accordance with the Council's maintenance manual and policy.

32.4 **Routine and reactive repairs are expected to continue at current levels throughout the period of this plan and will require continued investment**.

32.5 This plan assumes that the works gangs currently deployed to repair defects will continue to do so and that the quantities of repair required will be broadly similar to those experienced in recent years.

### 32.6 Resurfacing,Surface Treatment and Reconstruction

32.7 To keep defects at a manageable level, lengths of road require resurfacing or surface treatment. Treatment is required when their condition deteriorates to the point where defects are occurring. The extent of this is reflected in the condition targets shown previously.

32.8 The strategy for all road classes in relation to measured condition is to maintain the carriageway asset at its current condition level. This will involve a range of resurfacing and preventative treatments. It is expected that spending will be split 60% on preventative maintenance (surface treatments) and 40% spent on corrective maintenance (resurfacing treatments)

32.9 In general, where it is possible roads in the initial stages of deterioration may be treated with a surface treatment. More deteriorated and poor condition roads will have their existing surface removed and replaced with a new surface layer or reconstructed completely for complete foundation failure.

32.10 Sections of road to be treated will be identified from condition survey results and specific inspections. Resurfacing and surface treatment schemes will be prioritised using a process set out in the Council's highway maintenance manual. Prioritisation takes into account the number of defects, skid resistance survey results, traffic volumes, traffic speeds, customer complaints, claims and known planned future utility works.

## 33.0 CARRIAGEWAY WORKS SUMMARY

33.1 The strategy detailed above is expected to require the following amounts of works to be undertaken.

33.2 The anticipated routine and reactive repairs numbers will be similar to previous years given the same resource

repairing approximately 1,500 carriageway safety defects annually

33.3 Maintenance defects will be repaired on a resource-based frequency to ensure that the target for safety repairs is prioritised. Many maintenance defects will be repaired as part of the repairs to safety defects to fully utilise resource in any particular area. In some rare circumstances, to ensure public safety, a road will have to be closed until major maintenance can be carried out

### 33.4 Planned Carriageway Maintenance

33.5 The typical quantities of carriageway that have been maintained with the available resource during the previous HAMP period are shown in Table 11 below. This level of maintenance is expected to be completed during this plan

| Road Class | A | B | C | U |
|---|---|---|---|---|
| Surface Treatment (Preventative Maintenance) | 9km | 16km | 23km | 39km |
| Resurfacing (Corrective Maintenance) | 2km | 3km | 11km | 3km |

*Table 11 - Planned Carriageway Maintenance*

### 33.6 Annual Works Programme

33.7 A rolling programme is maintained of all roads where maintenance should be considered. A prioritisation process documented in the Council's highway maintenance manual is used to create an annual programme of work that is approved by Council and published.

33.8 The risk-based prioritisation process ensures that the strategy is implemented and that there is a documented method for choosing which schemes get targeted for treatment first.

33.9 The works quantities detailed in 33.2 and 33.5 have been estimated upon the anticipated funding levels to maintain a steady state level of repair and are shown in Table 12 below;

| Works Type | Annual Funding Required |
|---|---|
| Planned Maintenance | £4.6m |
| Routine & Reactive Maintenance | £1.3m |

*Table 12 – Annual Carriageway Maintenance Funding Requirement*

## 34.0 FOOTWAY & CYCLEWAY MAINTENANCE

34.1 The Council manages **220km of footways and cycleways**. This is an estimated amount based on previous surveys but expected to be greater. A strategy for improving the asset inventory for footways and cycleway is provided in Volume 2.

### 34.2 Safety Targets

34.3 The Council's targets for footway maintenance defect repairs are aligned with the adjacent carriageway as follows:

| Repair of Safety Defects | Standard |
|---|---|
| Critical defects shall be rectified or made safe within | 2 hours |
| Safety defects on carriageway hierarchy strategic routes, main distributor routes and secondary distributor shall be rectified or made safe# | By the End of Next Calendar Day |
| Safety defects on carriageway hierarchy link roads and local access roads shall be rectified or made safe # | 5 days |

#definition of critical and safety defects for footways are provided in **Appendix A**

34.4 The Council has adopted a hierarchy of footway so that inspection and repair regimes can reflect the different levels of use. The footway hierarchy definitions are provided in **Appendix B.**

### 34.5 Typical Footway and Cycleway Defect

34.6 A critical footway defect is one that poses immediate danger to users such that it is appropriate to guard it until it can be coned off or repaired. Such defects occur rarely but warrant prompt attention to ensure user safety. The response to a critical defect refers to the time to attend the site and to make the safe site.

34.7 Safety defects are those that pose an imminent risk of injury to users. These defects require a response as soon as possible to remove the potential risk. The main defects that need to be identified are those that may cause a pedestrian to fall over. Thes include damaged blocks and slabs and potholes. The size and location of the defect are considered when allocating the defect

category. Other defects that need to be considered are those that may block the footway and require the pedestrian to walk on the carriageway.

### 34.8 Example Defects

34.9 The examples shown below are typical of the sort of safety defect that can occur in the footway

| | | |
|---|---|---|
|  |  |  |
| **SAFETY DEFECT**<br>Trip Hazard | **SAFETY DEFECT**<br>Pothole | **SAFETY DEFECT**<br>Trip Hazard |

34.10 The Council's targets for footway maintenance defect repairs are aligned with the adjacent carriageway as follows:

| Repair of Maintenance Defects | Standard |
|---|---|
| Maintenance defects on highway hierarchy strategic routes, main distributor routes and secondary distributor shall be rectified or made safe # | 1 month |
| Maintenance defects on Highway hierarchy link roads and local access roads shall be rectified or made safe # | 3 months |

#definition of maintenance defects for footways are provided in **Appendix A**

### 34.11 Footway & Cycleway Condition

34.12 The Council's targets for footway condition for the duration of the plan are:

| Measured Condition Class | | Standard |
|---|---|---|
| Percentage in a **poor condition** shall be kept below | | 5% |
| Percentage that should be "**considered for maintenance**" shall be kept below | | 25% |

34.13 The photos below provide examples of footways which could be assessed as 'poor' or 'deteriorating'. A footway is assessed as 'poor' when both the structure and the surface are damaged. These footways require full replacement. Footways with only a damaged surface are 'considered for maintenance'.

| POOR CONDITION | | DETERIORATING | |
|---|---|---|---|
|  |  |  |  |

## 35.0 FOOTWAY & CYCLEWAY MAINTENANCE STRATEGY

35.1 The strategy for carriageways comprises of:

- the continued repair of minor defects
- capital investment in resurfacing and surface treatment.

### 35.2 Repair of Defects

35.3 Defects such as potholes and the like are identified by a regime of inspection or notified to the Council by users. Defects are assessed based upon the risk they pose to users and their repair prioritised in accordance with the Council's maintenance manual and policy.

**35.4 Routine and reactive repairs are expected to continue at current levels throughout the period of this plan and will require continued investment.**

35.5 This plan assumes that the works gangs currently deployed to repair defects will continue to do so and that the quantities of repair required will be broadly similar to those experienced in recent years.

### 35.6 Resurfacing and Surface Treatment

35.7 The strategy for footways is to manage condition ensuring that the amounts of poor and deteriorating footways always remain below their current levels. This will involve a range of strengthening and resurfacing treatments. It is expected that 95% of the spending will be on resurfacing treatments with the remaining 5% strengthening footways in the worst condition.

35.8 Sections of footways to be treated will be identified from condition survey results and specific inspections. Schemes will be prioritised using a process set out in the Council's maintenance manual. Prioritisation takes into account the number of defects, pedestrian counts, customer complaints, claims and known planned future utility works.

## 36.0 FOOTWAY WORKS SUMMARY

36.1 The strategy detailed above is expected to require the following amounts of works to be undertaken.

36.2 The anticipated routine and reactive repairs number will be similar to previous years given the same resource

Repairing approximately 250 footway and cycleway defects annually

36.3 All defects will be repaired on a resource based frequency to ensure that the target for safety repairs is prioritised. Many maintenance defects will be repaired as part of the repairs to safety defects to fully utilise resource in any particular area.

### 36.4 Planned Footway & Cycleway Maintenance

36.5 The typical quantities of footway and cycleway that have been maintained with the available resource during the previous HAMP period are shown in Table 13 below. This level of maintenance is expected to be completed during this plan

| Treatment | All footways & cycleways |
|---|---|
| Resurfacing (Corrective Maintenance) | 2km (400m/yr) |

*Table 13 – Planned Footway & Cycleway Maintenance*

### 36.6 Annual Works Programme

36.7 A rolling programme is maintained of all roads where maintenance should be considered. A prioritisation process documented in the Council's highway maintenance manual is used to create an annual programme of work that is approved by Council and published.

36.8 The prioritisation process ensures that the strategy is implemented and that there is a documented method for choosing which schemes get completed first.

36.9 The works quantities detailed in 36.2 and 36.5 have been estimated upon the anticipated funding levels to maintain a steady state level of repair and are shown in Table 14 below;

| Works Type | Annual Funding Required |
|---|---|
| Planned Maintenance | £160k |
| Routine & Reactive Maintenance | Included within £1.3M overall annual Highways Maintenance budget |

*Table 14 - Annual Footway Maintenance Funding Required*

## 37.0 STREET LIGHTING MAINTENANCE

37.1 The Council manages **6,813** lanterns on **6,328** columns as part of the street lighting infrastructure asset.

37.2 During the previous HAMP period, the Council completed its planned replacement of street lighting luminaires with modern and efficient LED units and replaced photocells to allow an adaptive lighting regime to be introduced. These measures have reduced the energy consumption of the street lighting asset to the minimum allowable before considering departures from standard.

### 37.3 Safety Targets

37.4 The Council's targets for street lighting safety faults are:

| Repair of Safety Defects | Standard |
|---|---|
| Critical defects shall be rectified or made safe within | 2 hours |

37.5 A critical defect could be an exposed cable, or column on the verge of collapse (for example having been hit by a vehicle). The standard is to attend and make the site safe within 2 hours. NB. It may not always be possible to execute a permanent repair within this timescale.

### 37.6 Example Defects

37.7 The examples shown below are typical of the sort of critical defect that can occur with street lighting apparatus



**CRITICAL DEFECTS**

37.8 The Council's targets for street lighting maintenance faults repairs are:

| Repair of Maintenance Defects | Standard |
|---|---|
| Maintenance defects (high priority- multiple outage) shall be rectified within | 24 hours |
| Maintenance defects (low priority – single outage) shall be rectified within | 5 days |

### 37.9 Street lighting Condition

37.10 The Council's targets for street lighting column condition (measured by structural testing) are:

| Measured Condition Target | | Standard |
|---|---|---|
| Percentage in a **poor condition** :: the percentage of street lighting columns tested that require instant removal or retesting in one year shall be kept below shall be kept below | | 5% |
| Percentage that should be "**considered for maintenance**": percentage of street lighting columns tested that require retesting within three years shall be kept below | | 25% |

## 38.0 STREET LIGHTING MAINTENANCE STRATEGY

38.1 The strategy for street lighting comprises of:

- the continued repair of faults
- capital investment in column and cable replacement
- Energy reduction.

38.2 **Repair of faults -** The result of most street lighting faults is that the light doesn't work. The faults are identified by a regime of inspections or notified to the Council by users via the Councils CRM system. Faults are assessed based upon the risk they pose to users, and their repair is prioritised in accordance with the Council's Highway Maintenance Manual

38.3 **Energy Reduction** - The Council is currently undertaking a 3 year energy reduction programme of works. New components are being installed which can be used to dim the lights to varying levels at different parts of the day. to install new components which can be used to dim the lights to varying levels at different parts of the day. The majority of the works have been completed in 2024/25. The final 2 years of the programme will be completed as part of this HAMP as end of life renewals will be required.

38.4 **Cable Replacement** - A lighting cable identification and replacement programme is completed annually to minimise the amount of future cable faults

## 39.0 STREET LIGHTING WORKS SUMMARY

39.1 The strategy detailed above is expected to require the following amounts of works to be undertaken.

39.2 The anticipated routine and reactive repairs number will be similar to previous years given the same resource

Repairing approximately 500 street lighting faults annually

39.3 All defects will be repaired on a resource-based frequency to ensure that the target for safety repairs is prioritised. Many maintenance defects will be repaired as part of the repairs to safety defects to fully utilise resource in any particular area.

39.4 The planned energy reduction measures will result in approximately **4000 energy reduction** photocells being installed between 2024/25 and 2026/27.

### 39.5 Planned Maintenance

39.6 It is estimated that the following approximate quantities of works will be carried out during the period of the plan.

| Item | Quantity per year |
|---|---|
| Column Replacement | 20 |
| Cable Replacement | 1.5km |

### 39.7 Annual Works Programme

39.8 A rolling programme is maintained of all street lighting where maintenance should be considered. A prioritisation process documented in the Council's highway maintenance manual is used to create an annual programme of work that is approved by Council and published.

39.9 The prioritisation process ensures that the strategy is implemented and that there is a documented method for choosing which schemes get completed first.

39.10 The works quantities detailed in 39.2 and 39.6 have been estimated upon the anticipated funding levels to maintain a steady state level of repair and are shown in Table 15 below;

| Works Type | 25/26 | 26/27 | 27/28 | 28/29 | 29/30 |
|---|---|---|---|---|---|
| Energy Reduction Photocells | £10k | £10k | - | - | - |
| Column Replacement | £30k | £30k | £30k | £30k | £30k |
| Cable Replacement | £105k | £105k | £105k | £105k | £105k |
| Routine & Reactive Maintenance | £400k | £400k | £400k | £400k | £400k |
| Energy Cost[#] | £240k | £240k | £240k | £240k | £240k |

*Table 15 - Anticipated Street Lighting Funding*

[#]The energy cost will vary each year but has been baselined for this exercise

## 40.0 HIGHWAY BRIDGES & STRUCTURES MAINTENANCE

40.1 The Council manages **993 structures** including 476 bridges, 3 footbridges, 354 culverts, 1 subway and 159 retaining walls.

### 40.2 Safety Targets

40.3 The Council's target response times for structural defects are:

| **Repair of Safety Defects** | **Standard** |
|---|---|
| Critical defects shall be made safe or the asset is closed for public safety | **2 hours** |

### 40.4 Bridges and Structures Condition

40.5 The Council's targets for structures condition for the duration of the plan are:

| **Measured Condition Target** | | **Standard** |
|---|---|---|
| **Percentage in a poor condition;** the percentage of structures with a BCI of **very poor** kept below | | 2% |
| **Percentage that should be "considered for maintenance";** the percentage of structures with a BCI of **poor** kept below | | 10% |

## 41.0 BRIDGES & STRUCTURES MAINTENANCE STRATEGY

41.1 The strategy for highway structures comprises of the targeted refurbishment of structures in a very poor or poor condition combined with a regime of routine maintenance designed to prevent other structures deteriorating into a poor condition.

41.2 **Reactive Maintenance -** Critical faults are normally notified to the Council by users. The standard response time of 2 hours for these faults leads to repairs being undertaken urgently.

41.3 Reactive repairs are expected to continue at current levels throughout the period of this plan.

41.4 **Routine Maintenance** - Routine maintenance works are “good housekeeping” work that are small in scale and cost but necessary to prevent more costly repairs being required in the future. Typical works include vegetation removal, drainage cleansing, minor repointing, minor concrete repairs etc.

41.5 **Planned Maintenance** - The Council has identified:

- 8 structures require strengthening
- 81 structures in a very poor condition that require major refurbishment works
- 242 structures in a poor condition that require minor refurbishment works.

41.6 The strategy is to address those that require strengthening and those in a very poor condition within this plan. This will involve a range of treatments from the replacement of components including bearings and expansion joints through to general repairs.

41.7 The individual requirements for each structure in the programme varies both in the preparation and the works phase. The ideal scenario will be to complete the structures in order of priority but it is almost certain delays will occur. The more appropriate approach will be to ensure that all resources are used efficiently to complete the works within the duration of the plan.

## 42.0 BRIDGES & STRUCTURES WORKS SUMMARY

42.1 The strategy detailed above is predicted to require the following to be undertaken over the full period of the HAMP

42.2 **Annual Works Programme** - A programme of structures requiring strengthening and / or refurbishment works will be identified each year for completion during this plan. The work will prioritise poor and very poor structures.

42.3 In order to undertake the amounts of works detailed the following amounts of estimated funding will be required annually.

| Works Type | Annual Funding Required |
|---|---|
| Planned & Routine Maintenance | £636k |
| Reactive Maintenance | Included within £1.3M overall annual Highways Maintenance budget |

## 43.0 TRAFFIC SIGNAL MAINTENANCE

43.1 The Council manages 8 sets of traffic signals. 1 junction and 7 pedestrian crossings.

### 43.2 Safety Targets

43.3 The Council's target response times for safety defects are

| Repair of Safety Defects | Standard |
|---|---|
| Critical defects shall be made safe within | **2 hours** |

### 43.4 Traffic Signal Condition

43.5 The Council's targets for traffic signal condition for the duration of the plan are

| Repair of Maintenance Defects | Standard |
|---|---|
| Maintenance defects (high priority) shall be rectified within | 24 hours |
| Maintenance defects (low priority) shall be rectified within | 5 days |

## 44.0 TRAFFIC SIGNAL MAINTENANCE STRATEGY

44.1 The aim of the traffic signals maintenance strategy is to ensure that all traffic signals are operating 99% of the time and all equipment remains in a safe condition.

44.2 Installations are replaced only following obsolescence due to life expiry or external damage

44.3 **Routine and Planned Maintenance -** It is anticipated that over the next five years the works on the traffic signal asset will be limited to routine inspection and reactive maintenance only. During the plan the pedestrian crossing one signal installation will need to be replaced.

44.4 The work quantities detailed above have been estimated upon the anticipated funding levels to maintain a steady state level of repair and are shown below

| Works Type | Annual Funding Required |
|---|---|
| Planned Maintenance | £20k |
| Routine & Reactive Maintenance | £14k |

## 45.0 RISKS TO THE PLAN

45.1 The risks that could prevent achievement of the standards specified in this plan are:

| Plan Assumption | Risk | Action If Risk Occurs |
|---|---|---|
| The plan is based upon winters being normal | Adverse weather will create higher levels of detects and deterioration than have been allowed for. | Budgets and predictions will be revised and this plan updated if abnormally harsh winters occur. |
| The plan is based upon normal seasonal weather conditions | Adverse weather will create higher levels of detects and deterioration than have been allowed for. | Budgets and predictions will be revised and this plan updated if abnormally adverse weather (e.g., flooding) occur. |
| Available budgets have been assumed as shown in sections 31.0 to 44.0 | External pressures mean that government reduce the funding available for roads | ASOR's will determine the budget setting required to maintain assets at the agreed service levels. If these budgets are not sufficient then this agreed level of service standard will be unachievable. Target service standards will be recommended for revision to affordable levels |
| Construction inflation will remain at level similar to the last 5 years. | Construction inflation will increase the cost of works (particularly oil costs as they affect the cost of road surfacing materials) | ASOR's will determine the budget setting required to maintain assets at the agreed service levels. If these budgets are not sufficient then this agreed level of service standard will be unachievable. Target service standards will be recommended for revision to affordable levels |

| | | |
|---|---|---|
| Levels of defect and deterioration are based on current data which is limited for some assets (e.g. footways) | Assets deteriorate more rapidly than predicted and the investment required to meet targets is insufficient. | Split between planned and reactive maintenance budgets will be revised. |

# APPENDIX A

## APPENDIX A: EXTRACTS FROM HIGHWAYS ACT 1980

45.2 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'.

**45.3 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 Council 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 Council had given him proper instructions with regard to the maintenance of the highway and that he had carried out the instructions.*

*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 Council within the Highway*

# APPENDIX B

## APPENDIX B: ASSET HIERARCHY CATEGORIES

| Carriageways | | |
|---|---|---|
| **New Category** | **Previous Category** | **Traffic Volume Band (approximate)** |
| CHSR | Strategic Route | Based on local importance rather than traffic flow but often in the range >20,000 [30,000 for calculations] |
| CH1 | Main Distributor | 10,000 - 20,000 |
| CH2 | Secondary Distributor | 5,000 – 10,000 |
| CH3 | Link Road | 1,000 – 5,000 |
| CH4 | Local Access Road | 200 – 1,000 |
| CH5 | Minor Road | < 200 |

| Footways | | |
|---|---|---|
| **New Category** | **Previous Category** | **Footfall Level (indicative)** |
| FHVHU | City Centre Pedestrian Area | >10,000 (15,000 used for calculations) |
| FH1 | Town Centre Pedestrian Area | 5,000 - 10,000 |
| FH2 | Footway Outside Public Facilities | 1,000 – 5,000 |
| FH3 | Link Footway (between estates/areas) | 500 – 1,000 |
| FH4 | Housing Estate Footway | < 500 |
| FH5 | Little Used Rural Footway | < 100 |

| Cycleways | | |
|---|---|---|
| **Category** | **Category Name** | **Description** |
| A | Cycle Lane | Lane forming part of the carriageway, commonly a strip adjacent to the nearest kerb |
| B | Cycle Track | A highway route for cyclists not contiguous with the public footway or carriageway. Shared cycle / pedestrian paths, either segregated by white line or other physical segregation, or un-segregated. |
| C | Cycle Trails | Leisure routes through open spaces. |

# APPENDIX C

## APPENDIX C: FREQUENCY OF INSPECTIONS

The frequency of routine inspections are shown in the following tables along with the CSSW minimum recommended standards:

| Carriageway: Routine Inspection Frequencies | | |
|---|---|---|
| **Carriageway Hierarchy** | **CCC Inspection Interval** | **CSSW Recommended Minimum** |
| CHSR | Monthly | Monthly |
| CH1 | Monthly | Monthly |
| CH2 | Every 3 months | Every 3 months |
| CH3 | Every 6 months | Every 6 months |
| CH4 | Annually | Annually (poor or unknown condition) |
| | | Every 2 years (good condition) |
| CH5 | Reactive | Reactive Only |

| Footway Routine Inspection Frequencies | | | |
|---|---|---|---|
| **Footway Hierarchy** | **CCC Inspection Interval** | **Inspection Method** | **CSSW Recommended Minimum** |
| FHVHU | Monthly | Walked | Monthly |
| FH1 | Monthly | Walked | Monthly |
| FH2 | Monthly | Walked | Every 3 months |
| FH3 | Every 3 months | Walked | Every 6 months |
| FH4 | Annually | Walked | Annually (poor or unknown condition) |
| | | | Every 2 years (good condition) |
| FH5 | Reactive | Walked | Reactive |

Where adjacent carriageways and footways are inspected during the same inspection the higher frequency level is applied

| Cycle Routes: Routine Inspection Frequencies | |
|---|---|
| **Cycle Route Hierarchy** | **CCC Inspection Interval** |
| A | As for roads |
| B | Every 6 months |
| C | Every 6 months |

# APPENDIX D

## APPENDIX D: DEFECT TYPES AND INTERVENTION LEVELS

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

### Critical Defects

| Asset Type | Defect | Hierarchy | Depth/Height | Extent | Response Time |
|---|---|---|---|---|---|
| **All** | **Examples:** Major debris or spillage on the highway; 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 | | 2 hours |

### Safety Defects

| Asset Type | Defect Type | Hierarchy | CCC Dimensional Criteria | CSSW National Minimum Standards | | Response Time |
|---|---|---|---|---|---|---|
| | | | Depth/Height | Depth/Height | Extent | |
| Carriageways | All | CHSR, CH1 and CH2 | >50mm | > 50mm | Maximum horizontal dimension greater than 150mm | By the End of Next Calendar Day |
| | All | CH3, CH4 and CH5** | >75mm | >75mm | Maximum horizontal dimension greater than 150mm | Within 5 Calendar Days |

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

**Maintenance Defects**

| Asset Type | Defect Type | Hierarchy | CCC Dimensional Criteria | CSSW National Minimum Standards | | Response Time |
|---|---|---|---|---|---|---|
| | | | Depth/Height | Depth/Height | Extent | |
| Carriageways | All | CHSR, CH1 and CH2 | > 40mm | > 40mm | Maximum horizontal dimension greater than 150mm | 1 month |
| | All | CH3, CH4 and CH5** | >50mm | >50mm | Maximum horizontal dimension greater than 150mm | 3 months |

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

# APPENDIX E

## APPENDIX E: SUSPENSION OF HIGHWAY SAFETY INSPECTION

| | | |
|---|---|---|
| **CYNGOR SIR CEREDIGION COUNTY COUNCIL**<br><br>**Gwasanaeth Priffyrdd ac Amgylcheddol**<br>**Highways and Environmental Services**<br><br>**GOHIRIO ARCHWILIADAU DIOGELWCH Y FFYRDD SIROL**<br>**SUSPENSION OF HIGHWAY SAFETY INSPECTION** | | |
| **Cyfnod y gohiriad:**<br>*Period of suspension:* | **O**<br>*From* | **Hyd**<br>*To* |
| **Rheswm am y gohiriad:**<br>*Reason for suspension:* | | |
| **Rhoddir awdurdod i ohirio'r archwiliadau diogelwch ffyrdd sirol dros y cyfnod a nodir am y rhesymau a roddir uchod.**<br>*The suspension of highway safety inspections is duly authorised for the period noted due to the reasons given above.* | | |
| **Corfforaethol – Gwasanaethau Priffyrdd ac Amgylcheddol**<br>*Corporate Lead Officer - Highways and Environmental Services* | | **Dyddiad**<br>*Date* |
| | | |
| **Aelod Cabinet**<br>*Cabinet Member* | | **Dyddiad**<br>*Date* |
| | | |

# APPENDIX F

# APPENDIX F: CODE OF PRACTICE HIGHWAY SAFETY INSPECTION AND RESPONSE ON COUNTY ROADS 2021

## 45.5 INTRODUCTION

### 45.6 Legislation

Ceredigion County Council as the Highway Authority has a statutory duty to maintain its highways as outlined in the Highways Act 1980.

In particular, Section 41 imposes a duty to maintain highways maintainable at public expense. There is no definition in the Act regarding the level of maintenance required although national codes have been produced to offer some guidance. The document, "Well-Managed Highway Infrastructure: A Code of Practice (October 2016)" produced by the Roads Liaison Group, makes recommendations for surveys and inspections of the adopted highway network, except where local constraints or demands have required local solutions.

Section 58 of the Highways Act 1980 provides the Local Highway Authority with a special defence:

> *"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 Council 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."*

### 45.7 Intention of this Document

This Highway Safety Inspection and Response Approved Code of Practice for Ceredigion County Council sets out the policy and standard for undertaking inspections of the adopted highway network. It is designed for use by staff carrying out highway inspections and forms part of the overall Highway Maintenance Manual. Intervention levels are stated for most circumstances, but inspection staff will always be expected to apply judgement as every eventuality cannot be covered. The primary aim of the code is to ensure that inspection, defect, and suggested repair details are correctly assessed and accurately recorded, together with subsequent details of actual repairs

undertaken. All those involved in this process must be conversant with the contents of this document in order to ensure a consistent understanding.

The Council's Highways Services carries out safety inspections of the public network within Ceredigion. The purpose of this is to ensure that, as far as is reasonable, publicly maintained carriageways, footways and other designated assets are safe for the highway user.

Implementation of a formal inspection regime and maintenance of, as far as is reasonable, the network and other assets, provides the Council with a defence under Section 58 of the Highways Act 1980 against claims made for damages resulting from incidents on the public highway.

## 45.8 THE STATUS OF THE CODE

45.9 It is good practice to monitor and regularly review the efficacy, relevance and compliance of the Council's Code of Practice. This revision of the 2010 Code has been driven and informed by the publication in October 2016 of the guidance document "Well Managed Highway Infrastructure: A Code of Practice". Whilst there is no requirement to adopt this guidance, the purpose of the code is to encourage best practice in highway maintenance and management.

In the 2016 publication the most significant change from the previous code was a recommendation that authorities adopt a risk-based approach, although no detail was provided on how this was to be achieved. County Surveyors Society Wales (CSSW) worked to develop a nationally consistent response through design of a methodology that would allow authorities to, through its adoption, benefit from working to a national standard. Ceredigion County Council's Highways Services has utilised this methodology in the development of the Council's 2021 code.

This document will confirm that Ceredigion County Council will accept the principles of the 2016 Code, which allows for local variations. Some principles are stated in this document, which specifically deals with Highway Safety Inspections.

Whilst it is accepted by the courts that a public highway can never be in perfect condition at all times the Highway Authority must show that it is meeting its responsibilities in a reasonable manner. An adequate inspection regime is an essential part of that requirement.

45.10 **Review**

45.11 This document is subject to regular review at an operational level in accordance with the County Council's commitment to a process of continuous improvement. This document shall be revised to record changes to service standards or the implementation of any newly defined service standards and policies including additional data on network traffic volume.

Risk reviews which collate appropriate data will be carried out periodically and used to inform refinements to hierarchy, inspection and repair regimes.

**45.12 OBJECTIVES**

45.13 The "Well Managed Highway Infrastructure: A Code of Practice (October 2016)" identifies the types of highway inspection that should be carried out to address three key objectives of a highway maintenance strategy.

1) Network Safety – Ensure compliance with statutory obligations.
2) Network Serviceability – Ensuring availability, integrity, reliability.
3) Network Sustainability – Maximising value to the community.

This document, "Ceredigion County Council Code of Practice: Highway Safety Inspection and Response on County Roads", deals specifically with Objective 1, Network Safety, and updates the previous 2010 "Code of Practice for Highway Safety Inspection of County Roads".

Ceredigion County Council's Highway Asset Management Plan provides the strategic framework that the Council has adopted and links to the Council's corporate aims and objectives.

The overarching corporate objective relating to highway maintenance is to provide safer and better roads to access services, employment and tourism.

Ceredigion County Council as local Council for highways maintainable at public expense within its boundaries will take reasonable steps to ensure these highways are safe and in discharging its duties will carry out:-

1) Regular inspections of the highways maintainable at public expense
2) Additional reactive ad-hoc inspections in response to service requests or queries received about the condition of the maintained highway.
3) Inspections in accordance with this code of practice.

The aims of safety inspections are to record 'defects' within the highway in order that a maintenance regime can maintain the highway in a safe condition

for users. This will be achieved by carrying out regular inspections, identifying any defects present and attaching a priority rating for them to be rectified in accordance with the guidance in this Code.

All elements of the inspection and assessment regime should be applied systematically and consistently. This is particularly important in the case of network safety, where information may be crucial in respect of legal proceedings.

## 45.14 TRAINING AND DEVELOPMENT

45.15 Ceredigion County Council is committed to continual staff development and training.

It is important that all those involved in the process of highway maintenance understand the extent and nature of Ceredigion County Council's, as the Local Highway Authority, legal obligations for highway maintenance, and how these relate to their particular responsibilities, including the important distinction between duties and powers.

It is therefore implicit that for each component of the Council's maintenance strategy that those involved in the process will have received training to enable them to demonstrate the necessary level of competence.

The Council shall provide the necessary training by both in-house and external bodies to ensure that support is provided for such competence to be maintained. On appointment, all Ceredigion highway inspectors will take part in and internal induction and training programme. This will be followed by formal external training and professional qualification. Further training will be provided as appropriate to ensure continual professional development.

All Ceredigion highway Inspectors are trained to City and Guilds 6033 - unit 301 and 311. Additional training will be provided to ensure compliance with the new code, including any regional or national Highway Inspector Competency Scheme or Accreditation.

UNIT 301: HEALTH AND SAFETY

- Intended to provide appropriate basic health and safety training for highways inspectors, to give them an appreciation of how to carry out a basic risk assessment and assist them to work safely on the highway.

UNIT 311 - HIGHWAY INSPECTION TECHNICAL

- Intended for those carrying out highways inspection in their first year of appointment and as a useful refresher for more experienced highway inspectors. The course provides a good basic knowledge of all areas of highways maintenance and inspection in which they might be involved.

## 45.16 RISK MANAGEMENT

45.17 The “Well Managed Highway Infrastructure: A Code of Practice (October 2016)” recommends that authorities apply a risk-based approach to highway management. In doing so authorities must acknowledge the fact that risk varies across the asset and between asset groups. Managers have always considered risk in their decision making about inspections, repair priorities and works programming. The new code creates a need to formalise such decision making and to ensure that all decisions are, as far as possible, fact based, and that the rationale for these decisions are recorded .

## 45.18 NETWORK SAFETY – SAFETY INSPECTIONS

45.19 Safety inspections identify all observed defects likely to create a danger or serious inconvenience to users of the network or the wider community. Such defects should include those that require urgent attention as well as those where the location and size are such that longer periods of response would be appropriate.

Safety inspections shall normally be undertaken by slow moving vehicle travelling at a maximum speed of 20mph. Walked safety inspections shall be carried out where and when appropriate. The mode of inspection for each location, either walked or by means of slow moving vehicle, will be influenced by risk assessing the location.

The highway safety inspections are generally carried out by single driver inspectors. Exceptions include urban locations and those where risk assessments have indicated a need for inspections to be carried out on foot. The mode of inspection is reviewed to reflect national working practices guidelines and health and safety advice/guidelines.

Additional inspections may be necessary in response to user or community concern, as a result of incidents or extreme weather conditions, or in the light of monitoring information. These shall be identified through the risk management process. The parameters that are to be adhered to are:

- Frequency of inspection
- Items for inspection
- Degree of deficiency
- Nature of response

**45.20 AD-HOC INSPECTIONS (SERVICE REQUESTS)**

45.21 Ad-hoc inspections are to be carried out to identify any required maintenance works following requests for service from the public or third party. These are relayed to the inspectorate via the service's Infrastructure Asset Management System, namely Symology Insight. The request is given a priority rating by the corporate call centre for response / inspection/investigation. All reported defects should be inspected within the allocated time period following receipt, unless they are already known to the inspector and have been previously entered on the Council's Insight system for rectification on a priority basis.

All ad-hoc inspections are recorded on a mobile device. Any identified defects falling within prescribed intervention criteria are entered onto the Insight defect database with instructions to make safe and/or repair within prescribed response times.

Category 1 defects are automatically sent to the relevant works team.

45.22 **Note -** Missing or damaged ironwork may be the responsibility of a Utility Company. In these circumstances the Highway Safety Inspector will enter onto the Council's asset management system details of the defect for action by the Council's Streetworks section who will manage any non-action by the Utility Company.

If such defects are reported to the corporate call centre by a member of the public they are recorded and forwarded to the relevant Streetworks Inspector, who will initiate contact with the relevant statutory utility undertaker or other contractor employed on the highway. If applicable they will record the defect and instruct the utility to make safe. If the statutory utility undertaker or other contractor cannot make safe within the specified 2hr period imposed then the works will be carried out by the Council's contractor with the costs re-charged.

## 45.23 NETWORK HIERARCHY

45.24 A viable network hierarchy is the foundation of a coherent, consistent and auditable maintenance strategy.

The requirement to split the asset into hierarchies exists in the current code. It has been retained in the new code but with the onus placed upon authorities to determine how best to apply the risk -principle in determining appropriate hierarchies. The new code states that “Carriageway hierarchy will not necessarily be determined by the road classification, but by functionality and scale of use.” For example, roads that carry 10,000 vehicles a day have a greater potential for an adverse event to occur than ones carrying 500 vehicles a day.

It is possible to estimate use for all roads based upon available traffic count data. County Surveyors Society Wales (CSSW) has chosen to recommend that a risk based hierarchy should be set predominantly based upon use. This does not preclude authorities from making necessary adjustment in response to particular local use patterns and issues. Ceredigion has undertaken a highway asset risk review which, in addition to traffic count data, takes into consideration additional factors such as whether the road is considered strategic, if it is part of a diversionary route or is travelled by a large volume of HGVs.

It is important that the hierarchy reflects the needs, priorities and actual use of each road in the network. Roads may be categorised as: classified numbered ('A' and 'B' roads), classified un-numbered ('C' roads) or unclassified ('U' roads). However, this system of classification does not necessarily reflect the priority and actual use of each road within the network

Footway priorities may sometimes conflict with carriageway priorities, and hence it is necessary to define footway and cycleway hierarchies.

For operational efficiency reasons when any highway element (either footway, cycleway or carriageway) runs adjacent to another element, the individual element having the highest hierarchy will determine the frequency of inspection of these other elements.

Walked safety inspections are carried out where applicable.

The defined operational processes seek to take into account the safety of all highway users whilst at the same time retaining an awareness of the

constraints placed upon the Council by defined and limited budgets and human resources.

These hierarchies are dynamic and reviewed to reflect any changes in network characteristics which may result due to the actual use of the network rather than the use expected when the hierarchy was originally defined.

"Well-Managed Highway Infrastructure: A Code of Practice (2016)" offers a reference point from which Highway Authorities can develop local hierarchies and for this purpose Ceredigion will apply the following shown in Table 16 as its main criteria with adjustments for usage:

| Code of Practice Hierarchy Level Names | CSSW Hierarchy Level | Traffic Volume Band (approximate) |
|---|---|---|
| Strategic Route | CHSR | Based on local importance rather than traffic flow but often in the range >20,000 [30,000 for calculations] |
| Main Distributor | CH1 | 10,000 - 20,000 |
| Secondary Distributor | CH2 | 5,000 – 10,000 |
| Link Road | CH3 | 1,000 – 5,000 |
| Local Access Road | CH4 | 200 – 1,000 |
| Minor Road | CH5 | < 200 |

*Table 16 - Highway (Carriageway) Hierarchy*

### 45.25 Highway (Footway) Hierarchy

The same principal has been adopted for the establishment of footway hierarchy. There is substantially less data available for footfall and this will need to be gathered over time.

Footway hierarchy is based predominantly upon use/traffic volumes and

- can be adjusted to reflect local conditions;
- is intended to create national consistency
- is to be documented with reasons for any variances from the method.

It is expected that officer judgement will be used to estimate footfall for different footways in order to apply the method in the absence of data.

In addition, and for operational efficiency reasons, when a highway element runs adjacent to another element, be it cycleway, footway or carriageway, the element which has the highest inspection frequency will determine the frequency of all elements.

Ceredigion will adopt the hierarchy detailed in Table 17:

| Code of Practice Footway Network Hierarchy Category | CSSW Hierarchy Level | Footfall Level (indicative) |
|---|---|---|
| City Centre Pedestrian Area | FHVHU | >10,000 (15,000 used for calculations) |
| Town Centre Pedestrian Area | FH1 | 5,000 - 10,000 |
| Footway Outside Public Facilities | FH2 | 1,000 – 5,000 |
| Link Footway (between estates / areas) | FH3 | 500 – 1,000 |
| Housing Estate Footway | FH4 | < 500 |
| Little Used Rural Footway | FH5 | < 100 |

*Table 17 – Highway (Footway) Hierarchy*

### 45.26 Highway (Cycleway) Hierarchy

There are increasing developments in promoted routes for cyclists therefore, and subject to review, Ceredigion will adopt the guidance in the Code of Practice and continue to apply the following table to signify the relative hierarchy.

In addition for operational efficiency reasons the highway element cycleway, when running adjacent to another element (footway or carriageway), or forming a lane of the carriageway, the element having the highest hierarchy will determine the frequency of inspection of this cycleway.

| Category | Category Name | Description |
|---|---|---|
| A | Cycle Lane | Lane forming part of the carriageway, commonly a strip adjacent to the nearest kerb |
| B | Cycle Track | A highway route for cyclists not contiguous with the public footway or carriageway. Shared cycle / pedestrian paths, either segregated by white line or other physical segregation, or un-segregated. |
| C | Cycle Trails | Leisure routes through open spaces. |

*Table 18 - Highway (Cycleway) Hierarchy*

## 45.27 INSPECTION REGIME

### 45.28 Safety Inspections

45.29 A risk based establishment of hierarchies is being undertaken predominantly based upon use. Table 19 details the recommended inspection frequency. See Appendix B.

### 45.30 Frequency of Inspection

45.31 The frequency of inspection is again broadly set in accordance with “Well Managed Highway Infrastructure: A Code of Practice (October 2016)” with minor adjustments to avoid conflict between carriageway and footway hierarchy. Where conflicts do exist, for example at a pelican crossing, the footway hierarchy will always take precedence in determining of inspection frequency.

Changes in the stipulated frequencies must be approved by the Corporate Lead Officer for Highways and Environmental Services before implementation.

In addition the Council has authorised deferment of the inspection regime in its entirety during periods where inspection is not possible. The authorisation form for the suspension of highway inspections is provided as Appendix E.

Safety Inspections shall normally be carried out at the fixed intervals set out in Table 19. However, the programme of inspections may be suspended for extraordinary reasons. These include but are not restricted to statutory or fixed holidays, periods of exceptional weather where flooding or snow prevents a proper inspection of the road network, and other emergency or extreme

events. Where inspections are suspended for periods of 2 days or less the roads and footways which were due to be inspected on these days shall be inspected within 2 weeks of the date that inspections resume. Where the period of suspension exceeds 2 days then, with the approval of the Corporate Lead Officer Highways and Environmental Services, and the cabinet member, the whole inspection programme shall be rolled forward/reset and resumed as if the period of suspension had not happened. Where approval is given to roll forward the inspection programme the reasons for and duration of the suspension must be logged on the Asset Management System.

| Feature | Category | Inspection Frequency |
|---|---|---|
| Roads | CHSR | Monthly |
| | CH1 | Monthly |
| | CH2 | Every 3 months |
| | CH3 | Every 6 months |
| | CH4 | Annually |
| | CH5 | Reactive Inspections |
| Footways | FHVHU | Monthly |
| | FH1 | Monthly |
| | FH2 | Every 3 months |
| | FH3 | Every 6 months |
| | FH4 | Annually |
| | FH5 | Reactive Inspections |
| Cycleways | A | As for roads |
| | B | Every 6 months |
| | C | Every 6 months |

*Table 19 - Inspection Frequency*

### 45.32 Operational Factor

45.33 Inspections shall be carried out on a route optimisation basis to ensure maximisation of operational efficiencies with the resources available. This will result in certain sections of the network now classified as having a lower frequency of inspection being inspected at a higher frequency than specified, for example, a section of the network specified as being inspected on a

frequency of 3 months actually being expected on a monthly return period if it is operationally more efficient.

### 45.34 Inspection Tolerances

45.35 A tolerance should be included to allow for unavoidable incidences such as bad Code of Practice Highway Safety Inspection and Response on County Roads weather, training, inspector sickness etc. When these are necessary it is recommended that the tolerance applied to each inspection frequency is 50% of the prescribed inspection interval or 3 months (whichever is the least).

Any changes to the above frequencies must be approved by the Corporate Lead Officer for Highways and Environmental Services and the cabinet member before they are implemented. See Appendix E.

### 45.36 Defects

45.37 A Critical Defect is one that the inspector considers presents a risk to safety high enough to require immediate action. Defects that pose an immediate or imminent risk of injury to road users typically include items such as a collapsed cellar, missing utility cover, fallen tree, unprotected opening etc. Critical defects should be made safe at the time of the inspection if practicable or attended by the inspector until such time as the defect can be made safe. Making safe may constitute displaying warning notices, coning or fencing off to protect the public from the defect. The minimum standard for a critical defect is a response time of 2 hours (to attend and make safe as soon as possible thereafter).

- A Safety Defect is one that requires prompt attention because it presents an imminent hazard. Safety defects requiring a response as soon as possible to remove a potential risk of injury to users will typically include items such as particular sizes of potholes, trip hazards, dislodged kerbs etc. If practical, safety defects should be made safe at the time of the inspection. This may constitute displaying warning notices, coning or fencing off to protect the public from the defect. If it is not possible to correct or make safe the defect at the time of the inspection, repairs of a permanent or temporary nature should be carried out within the response time specified. CSSW's minimum standard provides dimension data that can be used as a guide to identifying safety defects for different network hierarchies.

- A Maintenance Defect is one that is not a safety defect but requires repair at an appropriate time to guard against further deterioration. They do not present an imminent hazard to users. Maintenance defects should be categorised as higher priority: defects that warrant treatment in order to prevent them deteriorating into a safety defect prior to the next scheduled inspection, and lower priority other defects that warrant treatment in order to prevent them deteriorating to such an extent that additional works or costs are incurred.

### 45.38 Degree of Deficiency

45.39 The degree of deficiency in highway elements will be crucial in determining the nature and speed of response. The table below provides a baseline. Highway Inspectors will maintain the right to investigate and possibly intervene on a risk basis at any time. Risk based assessments will be informed by the use of Ceredigion's Inspection Defect Recording Manual, training, briefing and quality control mechanisms.

| **Carriageway Repair Regime: Response Times** | | | | |
|---|---|---|---|---|
| **Carriageway Hierarchy** | **Safety Defect** | | **Maintenance Defect** | |
| CHSR | >50mm | By the end of the next calendar day | >40mm | 1 month |
| CH1 | >50mm | | >40mm | |
| CH2 | >50mm | | >40mm | |
| CH3 | >75mm | 5 days | >50mm | 3 months |
| CH4 | >75mm | | >50mm | |
| CH5** | >75mm | | >50mm | |

*Table 20 - Carriageway Repair Regime Response Time*

### 45.40 Defect Size

45.41 The defect sizes chosen for each type of defect and hierarchy reflect the fact that carriageway defects deteriorate more rapidly on more heavily trafficked roads as a result of the volume of vehicles running over them. A defect of 50mm depth on CH2 and above will be subjected to repeat trafficking. All

these roads carry >5,000 vehicles per day and as such a pot hole could deteriorate rapidly into a more hazardous feature if not repaired promptly. For this reason, a differential standard of safety defect size has been adopted for the minimum standard shown within Table 9.2.

**45.42 Response Times**

45.43 The proposed response times are also based upon taking into account the different levels of use. Appendix D shows how risk exposure has been calculated and used to show what response times are required to deliver a consistent level of risk exposure across all levels of the hierarchy.

**45.44 DEFECTS ASSOCIATED WITH OTHER PARTIES**

45.45 Some defects occurring on the highway are associated with defective utility or private apparatus that include covers to inspection chambers, boxes or meters. Acting as highway Authority and following an on site risk assessment, the Council will in order to protect the public from encountering such a dangerous defect, erect the necessary temporary signing and guarding to make the area safe.

After determination of the fault, the Council accepts the responsibility or passes the responsibility to the utility company or third party.

Other defects associated with other third parties, such as overhanging vegetation and encroaching fencing, or illegal obstructions of the highway that cause interference to the free and safe flow of road users, shall be recorded and may be dealt with by undertaking the remedial works and recharging or by means of an enforcement letter, and submitted for further investigation. These actions may include legal proceedings.

**45.46 MANAGEMENT SYSTEM AND DATA CAPTURE**

45.47 Highways Services utilises an integrated Infrastructure Asset Management System (IAMS) across a number of business areas. This system is used to collect, update and manage key data linked to sections of road, which are identified using the National Street Gazetteer's Unique Street Reference Number (USRN). Data can be GIS linked and the system allows for the linked storage of photographs and documents.

The main IAMS is web-based and is accessed via personal computers and laptops. Inspection and works modules are accessed via handheld mobile devices. Mobile working by Highways Inspectors facilitates receipt and communication of real time information.

The IAMS is used (although not exclusively) to schedule inspections, record defects, issue works tickets and receive/respond to customer enquiries. Features of these processes include:

Inspection dates for all roads to be inspected are scheduled in advance and downloaded weekly to mobile devices.

Defects are recorded and prioritised by Highways Inspectors on mobile devices via selection from standard menus and sent back to the main system in real time, or stored when out of signal for later transmission.

To facilitate a quick response, selected Category 1 defects are sent direct to works gangs via mobile devices when they are recorded.

Where appropriate, Inspectors will plot defects on a map, and take and attach photographs to defects.

Customer service requests are sent direct to mobile devices to prompt reactive ad-hoc inspections.

Responses to customer requests where reactive inspections do not generate defects are recorded and notification returned to customer services.

Any agreed deferral or suspension of inspections is facilitated via the system and recorded.

Reporting from the IAMS system is used for strategic planning as well as operational, performance management and claim defence purposes