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west sussex county council

Highway Infrastructure Asset Management Strategy

December 2024

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Introduction

West Sussex County Council (WSCC) is committed to delivering high-quality services to its residents while managing assets effectively and sustainably. This commitment is articulated through *Our Council Plan 2021-2025* and the *Transport Plan (WSTP) 2022-2036.* These documents outline the strategic priorities that guide the Council's approach to asset management, ensuring that investments in infrastructure and services meet the current and future needs of the community. The strategic priorities outlined in both documents are integral to WSCC's Highways Infrastructure Asset Management Strategy. Effective asset management supports the delivery of these priorities by ensuring that infrastructure and services are maintained, improved, and managed sustainably.

As part of the commitment in delivering high-quality services the highways services conducted an asset management maturity assessment in 2023-2024. This assessment made several key recommendations, one of which was the review and update of the existing asset management strategy to ensure that it aligns with the councils' corporate plans and industry best practice. Additionally, the assessment resulted in the development of criteria to guide all asset management decisions and the formal documentation of these processes. It was also recommended that the performance management framework be updated to ensure alignment with the asset management objectives.

Asset	Items	Quantity
Carriageways	Length (km) Area (m^2) Kerb Length (km)	4,060 27,770,000 4,435
Footways	Length (km) Area (m^2)	3,975 7,643,900
Cycleways	Length (km)	81
Structures	Bridges (no) Subways (no) Footbridges (no) Retaining Walls (no)	677 33 95 76
Highway Drainage	Gullies (no) Ditches (km) Grips (no)	139,700 228.172 6640
Street Lighting	Streetlights (no) Illuminated Signs (no) Illuminated Bollards (no)	69,700 8,500 3,100
Traffic Signals and Intelligent Transport Systems	Signalised Junctions (no) Pedestrian Crossings (no) Vehicle Activated Signs (no)	129 398 186
Highways Trees	Trees (no)	313,000
Highways Soft Estate	Grass verges (km) Highways Hedges (m^2) Planted Araes (m^2)	4,900 120,900 78,200

Table 1 – Highways Assets

Council Plan

This document serves as the foundation for WSCC's strategic direction, it emphasises the need for a balanced budget, efficient service delivery, and strategic investments in critical areas such as highways maintenance and digital infrastructure. It also highlights the challenges posed by inflation, recruitment, policy changes, and funding uncertainties, all of which impact the way the highway infrastructure is managed and maintained.

Climate Change Strategy

Integrating climate change and sustainability into highways asset management is essential for the Council to meet its target of being carbon neutral by 2030 as stated in the *Climate Change Strategy 2020-2030.* Highways infrastructure is critical for economy and the wellbeing of residents, yet it is vulnerable to the impacts of climate change, such as increased temperatures, more intense storms, and sea-level rise. Adapting asset management strategies to address these challenges will ensure the longevity and resilience of the highways network.

West Sussex Transport Plan

The Transport Plan is the Council's comprehensive policy framework for transport infrastructure and services that sets out the vision and objectives for the transport network in West Sussex and addresses how the council is working with relevant stakeholders in addressing social, economic, environmental and transport challenges.

Highway Infrastructure Asset Management Policy

It is the policy that ensures alignment between Council's Plan and how the transport infrastructure and services support the objectives in the plan and the broader vision of a connected, sustainable, and prosperous West Sussex.

West Sussex Service Plans and Strategies

This strategy supports and directs several other plans within West Sussex such as the Public Rights of Way Management Plan, the Network Management Plan and the Active Travel Strategy.

Purpose

The Highways Asset Management Strategy has two parts in which the first describes the approach to delivering the aims and objectives stated in the Highways Infrastructure Asset Management Policy. It also provides the framework for achieving the council's strategic priorities in relation to the delivery and management of the council's highway assets.

This strategy has been developed to ensure alignment with the Council Plan and other key documents including the UKRLG Well-Managed Highway Infrastructure: A Code of Practice.

This strategy establishes the activities and process that are necessary to develop, document, implement and continually improve highway management and maintenance meeting the needs of the assets and ensuring a safe and effective network for all that use it.

Aligned to the Council's objectives, this strategy seeks to follow the latest advice and best practice within the highways and transportation sector whilst also considering affordability, sustainability, resilience and continuous improvement through collaboration.

The second part sets out a strategy on a page for the management of each asset group in line with the principles, objectives and activities set out in part 1.

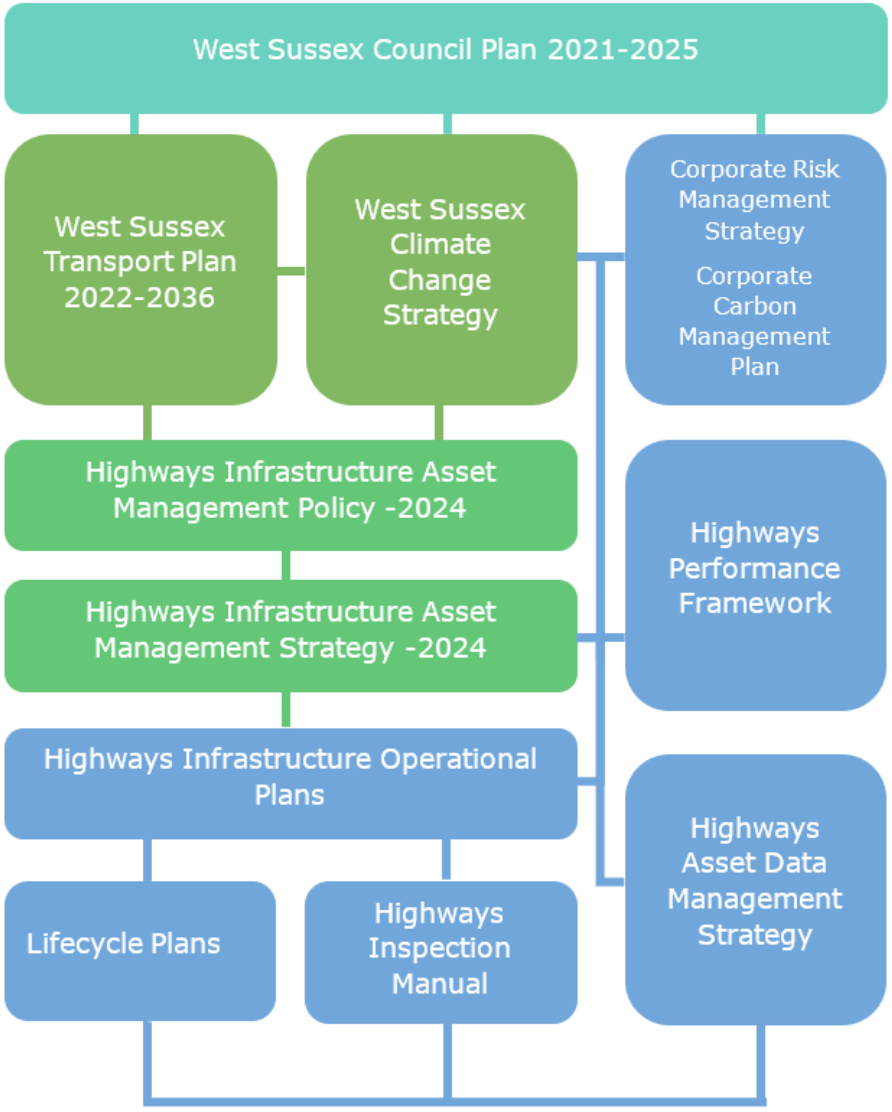

Figure 1 – Highways Service Document Framework

1.1 Asset Management Objectives

This strategy is structured around key objectives that align with WSCC's strategic priorities as stated in the Council's Plan and the Highway Infrastructure Asset Management Policy:

Keeping people safe from vulnerable situations

- Ensuring the safety of highway users by managing risks associated with asset conditions and performance.
- Compliance with statutory obligations and focus on maintaining safety as a core principle in all decision-making processes.
- Prioritise the management of all asset groups to ensure resilience of the network and availability of key services within the authority.
- We will ensure that mobility and accessibility needs are inherent in our decision-making processes
- We will support the growth in active travel enabling choice, and enhancing the health and wellbeing of our community and stakeholders

Making best use of resources

- Optimising the management of highway assets through accurate data collection, informed decision-making, and timely interventions.
- Implementing lifecycle costing to ensure that asset investments deliver long-term value.
- Investing in the training and development of our workforce to build capability and support continuous improvement in asset management.
- Optimise the network hierarchy to ensure resilience and deliver value for money through the prioritisation and delivery of works.

Supporting a sustainable and prosperous economy

- Developing and maintaining highway assets that contribute to economic growth by supporting the mobility of people and goods.
- Fostering collaborative partnerships that enhance asset management practices and support the local economy.
- Promote the use of digital technology to improve asset management efficiency and support economic innovation.

Protecting the Environment

- Integrating environmental sustainability into asset management decisions, supporting the Council's Climate Change Strategy and Delivery Plan.
- Ensuring that asset management practices contribute to achieving the national commitment of being carbon neutral by 2050.

1.2 Highways Service Framework

The highway service aims to deliver a well-maintained, safe, and serviceable highway network by focusing on data driven delivery, project management, resilience and sustainability that will enable a safe, reliable, and sustainable highway network that meets the needs of all users.

These aims are integral to the asset management strategy and align with broader asset management objectives of community engagement, accurate asset information, evaluation and prioritisation of schemes, whole-life cost consideration, and continuous improvement.

Accurate and current asset information is essential for informed decision-making and optimising the lifecycle management of highway assets. The service aims to maintain comprehensive and up-to-date data on all assets, leveraging condition data and performance measurements for its highways' assets. By ensuring reliable asset data, decision-making capabilities can be improved and resources allocated more efficiently, aligning with the objective of maintaining accurate and current asset information. The highway service also recognises the importance of effective Project Management Office (PMO) functions. These functions include:

- distributing funding and the associated financial control to all asset groups,
- developing programmes based on delivery activities, available funding, and network optimisation,
- governance around projects management and controls,
- corporate performance reporting.

Sustainability is a core aim of the highway service, reflected in the County Council's commitment to avoiding and minimising environmental impacts, and considering whole-life carbon and cost implications in planning and executing new schemes or renewals. This approach not only ensures long-term efficiency savings but also promotes more sustainable asset management practices. Integrating environmental and sustainability considerations into decision-making processes supports the Council's *Climate Change Strategy 2020-2030* document. By reducing the environmental impact of operations, we contribute to broader sustainability goals, aligning with the objective of whole-life considerations and optimal resource allocation.

Resilience is also an important component of the highways service, underpinning the ability to maintain a safe and reliable highway network in the face of various challenges. As the network experiences increasing demands due to factors such as climate change, changing traffic patterns, and budgetary constraints, resilience becomes essential in ensuring the continued functionality of the highway infrastructure. WSCC seeks to address these issues not only through reactive maintenance but also anticipate future challenges by delivering robust planned and cyclical maintenance. This approach helps to mitigate risks, extend the useful lifespan of assets, and reduce the frequency and impact of disruptions consequently supporting broader strategic objectives outlined in the Highway Infrastructure Asset Management Policy and Local Transport Plan.

Overall, the highway service seeks to foster a culture of continuous improvement by regularly monitoring, measuring, and reporting on asset performance and management practices. Identifying areas for improvement ensures the highways service remains adaptive and responsive to changing needs and challenges. This commitment to continuous improvement underpins the entire asset management strategy, driving better outcomes and more effective service delivery for the county.

1.3 Performance

Performance forms a crucial part in the decision making and delivery of the highway infrastructure asset management. This strategy sets out the strategic performance requirements for each asset group and the respective decision making and delivery processes.

These consist of:

- making the best use of available resources
- continuously improving the overall network integrity and resilience
- manage assets conditions to meet desired levels of service
- ensuring value for money through efficient and effective decision making and planning
- delivering works at all levels on time and to budget
- reducing carbon impacts through informed decision making and delivery
- minimising disruption to users through efficient delivery

These strategic performance requirements will derive a set of monitoring indicators that will compliment those being used by the Council in other services and will form the Highways asset management specific performance management framework. This performance management framework is designed to ensure that the management and maintenance of the highway network is aligned with broader strategic objectives which are fostering a sustainable and prosperous economy, helping people and communities fulfil their potential, and keeping people safe from vulnerable situations.

1.4 Customers and Stakeholders

The highway network supports and facilitates a variety of customers and stakeholders', and this strategy supports the objectives set out in the West Sussex Highways, Transport & Planning Communication Strategy. The Council is committed to ensuring that the requirements and expectations of its diverse range of customers which includes residents, road users and local businesses are understood and addressed in the management and maintenance of highway assets. This commitment applies to the council's key delivery stakeholders, including internal teams, contractors, and partner organisations, all of whom play a critical role in delivering a safe, efficient, and well-maintained highway network.

Objectives

When ensuring that the needs of the customers and stakeholders are considered and met the strategy sets out the following objectives:

- Effective and Transparent Decision-Making
- Timely and Proactive Communication
- Improved Coordination and Collaboration
- High-Quality Data and Asset Information
- Clear and Consistent Processes
- Increased Public Satisfaction
- Alignment with Strategic Goals
- Enhanced Funding and Resource Allocation
- Continuous Improvement

Stakeholders

The effective implementation of the Highways Asset Management Strategy requires collaboration and input from a wide range of stakeholders, each playing a critical role in the overall success of the service. Stakeholders include internal teams such as the Planned Delivery team, the Local Highways Operations, Business Assurance and the Project Management Office. External stakeholders such as the Department for Transport and local communities are integral to the strategy's success but have a more limited ownership and accountability for the strategy as shown in Figure 2 below.

Figure 2 – Highways Service Asset Management Stakeholders

Internal stakeholders, including the various asset management teams (Local Highway Operations and Planned Delivery), are key to ensuring that the strategy is informed by accurate and up-to-date data. The Business Assurance team has a crucial role in managing the inventory and condition data, which is essential for budget preparation and the prioritisation of maintenance activities. Similarly, the Network and Transport Operations team focuses on active travel initiatives, working closely with Active Travel England and other partners to secure funding and deliver projects that align with local and national transport goals.

The Programme Management Office fosters relationships with external stakeholders to ensure that the strategy is responsive to broader transport and infrastructure goal such as the integration of major projects through the Strategic Transport Investment Programme (STIP) which highlights the need for a coherent approach that aligns with regional and national priorities.

Internal Stakeholders

Internal stakeholders are critical to the execution of the Highways Asset Management Strategy. Key internal stakeholders include:

Stakeholder	Duties
Elected Members	Provide policy direction Ensure alignment with council objectives
HTP Management Team	Lead and oversee the implementation of the strategy
Planned Delivery	Handles the distribution of funding, develops programmes based on delivery activities and available resources, and ensures effective handover and coordination with asset owners post-project completion.
Transport and Network Management	Focuses on active travel and bus infrastructure improvements, collaborates with stakeholders to develop and deliver schemes, and ensures alignment with broader transport strategies Ensures efficient management and availability of the highway network
Planning Services	Focuses on developing and delivering the County Council's long term strategic plans and improvements to the transport network

External Stakeholders

Effective engagement with external stakeholders is essential for the strategy's success. Key external stakeholders include:

Stakeholder	Duties
Residents and Local Communities	Daily users of the highway infrastructure.
Businesses	Rely on efficient transport infrastructure for operations and logistics.
Public Transport Operators	Depend on well-maintained roads for service delivery.
Government and Regulatory Bodies:	Provide funding, set regulations, and ensure compliance.

Understanding Customer Needs and Requirements

Understanding the needs and concerns of the council's customers is crucial to delivering a responsive and effective service. The Council actively seeks feedback from the public through various channels, including surveys, consultations, and the reporting platform, which allows residents to report issues directly. This feedback is invaluable in shaping the Council's priorities and ensuring that the most pressing concerns are addressed promptly.

This approach helps the Council to prioritise maintenance and improvement works based on actual customer needs, ensuring that resources are allocated where they are most needed. For example, feedback indicating frequent flooding on footways may lead to prioritising drainage improvements in those areas. By aligning the asset management strategy with customer requirements, the Council can more effectively deliver a highway network that meets public expectations.
Each asset strategy in part 2 identifies the required communication for each asset group that is of a reactive and proactive nature. This approach enables customers to be better informed about planned works, the reasons behind them, and the expected benefits. This approach set out in the strategy improves transparency but also helps to manage public expectations and foster a greater understanding of the processes involved in highway maintenance.

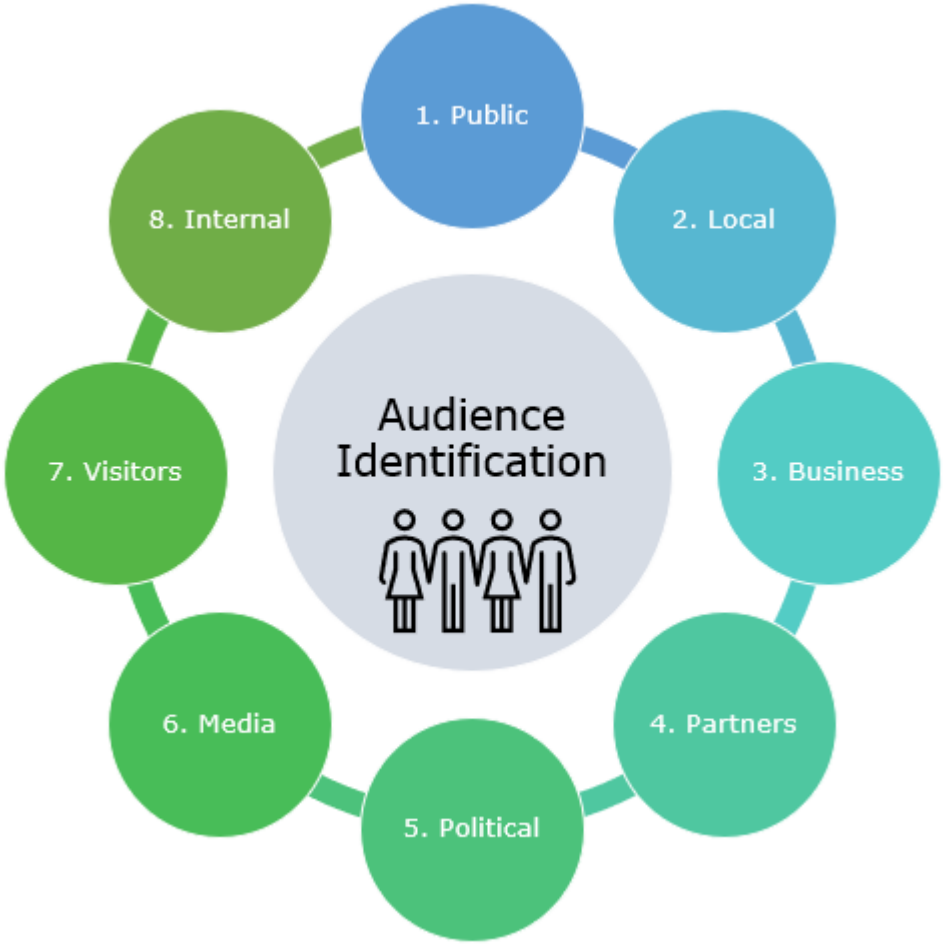

Figure 3 – Highways Service Customers

1.5 Data Management and Information Systems

Effective data management and robust information systems are fundamental to the successful implementation of a highways asset management strategy. The council recognises the critical role that accurate, comprehensive, and up-to-date data plays in the management and maintenance of the highway assets, including carriageways, footways, cycleways, drainage, and structures.

Figure 4 – Asset Data Lifecycle

Data Management

The council is proactive in its approach to data management, overseeing the collection, maintenance, and utilisation of all highway-related data across the county. The Council's data is predominantly managed in the core Asset Management System, which supports the decision making set out in the strategy. The council has a detailed repository of information on various assets, including carriageways, cycleways, footways, structures, drainage systems, and street furniture. The inventory is continually reviewed and updated to ensure the highest level of accuracy, with significant efforts dedicated to improving data quality, including reviews of digital records and photographs.

Condition data is collected and managed systematically for highways through various methodologies, including SCANNER, SCRIM, CVI, and FNS surveys. These data sets are essential for prioritising maintenance activities, informing budget preparation, and supporting the strategic planning of asset management. The data is used to make informed decisions in relation to managing the assets, and is also reported to the Department for Transport as part of the standard data list returns by all authorities

This strategy recognises the importance of data as an asset and therefore within part 2 in each asset strategy it is identified how data will be collected, stored and used along its own lifecycle to support the decision making and communication processes for the service.

Systems

As detailed in Table 1, the Council employs several information systems to manage the diverse range of assets within its network. The asset management system serves as the primary tool for managing many of the highway assets, although it has been recognised that this 'one-size-fits-all' approach may not fully meet the specific needs of certain asset groups, such as structures. Therefore, as part of continuous development the Council will continue to explore the potential for more specialised systems to support the management of these assets.

The Council utilises a Geographic Information System (GIS) tool that supports the highways service in prioritisation of carriageways, footways, and cycleways needs. This use of GIS in identifying and prioritising defects ensures that a more comprehensive and holistic approach is taken in managing the assets. The GIS tool is used for communication and data sharing, across several of the highway's services delivery streams.

The coordination between the asset management system and the GIS allows for better collaboration between teams, ensuring that data is accurately recorded, utilised for decision making and accessible to all relevant stakeholders.

The use of key systems for the service aligns with the Council's broader objective of enhancing data accuracy and improving the overall management of highway assets.

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Table 2 – Asset Data and Systems Summary

Asset Group	Inventory Data	System	Inventory Collection Method	Condition Data	System	Condition Collection Method
Carriageways	RMMS / UKPMS	CONFIRM	Walked survey Up to 40km	CVI SCANNER SCRIM Safety inspections	CONFIRM	Driven 2 man Mechanical Mechanical Walked/driven/cycled
Cycleways and Footways	RMMS / UKPMS	CONFIRM	Walked survey Up to 40km	FMS FNS DVI Safety inspections	CONFIRM	Walked Survey Walked/driven/cycled
Highway Structures	RMMS / UKPMS	CONFIRM	Walked survey Up to 40km	BCI Inspections Pump sensors	CONFIRM	Structural Inspectors
Highway Drainage	RMMS / UKPMS	CONFIRM	Walked survey Up to 40km	Safety inspections Silt levels, pipe condition.	CONFIRM KaarbonTech	Walked/driven/cycled Contractor cyclical programme
Highway Street Lighting	RMMS / UKPMS	FM by Enerveo	Planned maintenance inspections	Asset condition, Electrical connections Safety inspections	FM by Enerveo	Visual inspection with a sample submitted for structural testing
Vehicle Restraint Systems	Asset data model pending import to CONFIRM based on last survey data. Available Excel/GIS.					
Traffic Signals	RMMS / UKPMS	IMTRAC	Annual inspection	Asset condition Electrical connections Safety inspections	IMTRAC	Annual Inspection
Traffic Signs, Bollards and Road Markings	UKPMS	CONFIRM	Walked survey Up to 40km	Safety inspections	CONFIRM	Walked/driven/cycled
Soft Estate/Green Infrastructure	RMMS / UKPMS	CONFIRM	Walked survey Up to 40km	Safety inspections Arboriculture inspection	CONFIRM	Inspectors/stewards Arboriculturist walked/driven inspection
Street Furniture	RMMS / UKPMS	CONFIRM	Walked survey Up to 40km	Safety inspections	CONFIRM	Walked/driven/cycled

2.1 Asset Strategies

The major highway assets managed by West Sussex County Council are listed in the following tables which with each asset having a defined strategy that sets out how the overarching objectives stated in this strategy will be achieved.
The strategy for each asset group focusses on three delivery functions:

- Reactive Maintenance – Ensuring a safe network
- Cyclical/Preventative Maintenance – Supports maintaining a safe network whilst extending the life of the asset where possible.
- Planned Maintenance – Renewal of life expired asset or where intervention is the best value for money approach for the authority.

To support each of these delivery functions this strategy identifies overarching principles, processes or aspirations that support the corporate and Highways Infrastructure Asset Management Policy objectives, these are:

- Data – Identification of what data is required, how it will be used and how it will be shared
- Systems – Identification of where the data will be store, how the system will use the data and support the sharing of data.
- Treatment Options – What options are available and utilised to manage the condition of the asset.
- Sustainability – A strategic overview of the environmental impacts and how the activities are undertaking in a more sustainable way.
- Performance – Identifies overarching performance aspirations and indicators
- Resilience – Demonstrates how the activities support resilience within the highway network
- Communication – Identifies high level ways of receiving data and informing customers and stakeholders.

Carriageways

	Reactive	Cyclical / Preventative	Planned
Data	**CREATE –** Undertake Safety Inspections as per the Highway Inspection manual **USE –** Rectify defects in accordance with the intervention times detailed in the Highway Inspection manual **SHARE –** make safety inspection and defect data available to all for reporting purposes and informing decision making and efficient programming on works.	**CREATE –** Undertake a suite of surveys to ascertain carriageway condition including but not exclusively, SCANNER, DVI, CVI, SCRIM **USE –** analyse condition data to define long-term asset needs and produce short- and medium-term plans of work **SHARE –** make condition data available for reporting purposes to meet the DfT requirements and internal measures. Provide forward works programme to the PMO for network delivery optimisation	**CREATE –** Undertake a suite of surveys to ascertain carriageway condition including but not exclusively, SCANNER, DVI, CVI, SCRIM **USE –** analyse condition data to define long-term asset needs and produce short- and medium-term plans of work **SHARE –** make condition data available for reporting purposes to meet the DfT requirements and internal measures. Provide forward works programme to the PMO for network delivery optimisation
Systems	**STORE –** All safety inspection data to be stored within CONFIRM **USE –** CONFIRM will manage the workflow of the rectification of defects and scheduling of inspections **SHARE –** All relevant staff will have access to CONFIRM including access to the data and functionality relating to their role.	**STORE –** All condition data to be stored within CONFIRM **USE –** CONFIRM will store all condition data supporting cross asset analysis **SHARE –** All relevant staff will have access to CONFIRM including access to the data and functionality relating to their role.	**STORE –** All condition data to be stored within CONFIRM **USE –** CONFIRM will store all condition data supporting cross asset analysis **SHARE –** All relevant staff will have access to CONFIRM including access to the data and functionality relating to their role.
Treatment Options	Pothole repairs – Temporary (make safe) Pothole Repairs – Permanent (Patching) Edge defects – haunching and patching Crack Sealing Severe surface depressions- patching. Jet Patching	Surface Dressing Micro Surfacing Joint Sealing Retexturing HFS Replacement Patching (including Thermal/Mastic trials)	Reconstruction – HRA Reconstruction – TWCS Inlay (Multiple Layers) – HRA Inlay (Multiple Layers) – TWCS Inlay (SC Only) – HRA Inlay (SC Only) -TWCS Insitu Recycling
Sustainability	Scheduling of defect repairs to reduce distances travelled by plant. Plan for permanent repairs where possible to reduce the need for return visits.	Optimise programming of schemes across asset groups Undertake cross asset routine and cyclical works where possible within scheme closures	Application of warm asphalt where the whole lifecycle of the asset is considered. Utilise insitu recycling where applicable Optimise programming of schemes across asset groups Undertake cross asset routine and cyclical works where possible Consideration of environmental constraints (e.g. noise important areas) and opportunities to avoid or minimise impacts
Performance	Reduce repeat visits to defects year on year Reduce number of defects year on year Rectification of defects within defined timeframes	Increase use of preventative treatments year on year Completion of the annual plan	Maintain condition of the network between a defined level Completion of the annual plan
Resilience	Utilise inspection and defect data to ensure that network disruption is kept to a minimum where key/critical infrastructure or services are with WSCC	Utilise preventive maintenance to reduce the possibility of reactive defects occurring whilst also the protecting the asset from longer more severe deterioration	Utilise planned maintenance to ensure that the asset is resilient to meet future challenges including: Traffic Growth Modal Shift Climate Change (Rain / Hot Weather)
Communications	Utilise reporting too to manage incoming reports and providing updates as to progress through to completion.	Proactive communication informing customers and stakeholders about preventative maintenance processes including benefits and when works are scheduled Provide accurate real time information related to scheme delivery	Proactive communication informing customers and stakeholders about planned maintenance processes including benefits and when works are scheduled. Provide accurate real time information related to scheme delivery

Footways and Cycleways

	Reactive	Cyclical / Preventative	Planned
Data	**CREATE –** Undertake Safety Inspections as per the Highway Inspection manual **USE –** Rectify defects in accordance with the intervention times detailed in the Highway Inspection manual **SHARE –** make safety inspection and defect data available to all for reporting purposes and informing decision making and efficient programming on works.	**CREATE –** Undertake a suite of surveys to ascertain asset condition including **USE –** analyse condition data to define long-term asset needs and produce short- and medium-term plans of work **SHARE –** make condition data available for reporting and forward works programme to inform stakeholders.	**CREATE –** Undertake a suite of surveys to ascertain asset condition **USE –** analyse condition data to define long-term asset needs and produce short- and medium-term plans of work **SHARE –** make condition data available for reporting purposes to meet the DfT requirements and internal measures. Provide forward works programme to the PMO for network delivery optimisation
Systems	**STORE –** All safety inspection data to be stored within CONFIRM **USE –** CONFIRM will manage the workflow of the rectification of defects and scheduling of inspections **SHARE –** All relevant staff will have access to CONFIRM including access to the data and functionality relating to their role.	**STORE –** All condition data to be stored within CONFIRM **USE –** CONFIRM will store all condition data supporting cross asset analysis **SHARE –** All relevant staff will have access to CONFIRM including access to the data and functionality relating to their role.	**STORE –** All condition data to be stored within CONFIRM **USE –** CONFIRM will store all condition data supporting cross asset analysis **SHARE –** All relevant staff will have access to CONFIRM including access to the data and functionality relating to their role.
Treatment Options	Temporary (Make-safe) repairs for potholes, cracks, and depressions. Permanent patching and repair for edge defects, severe surface depressions, or trip hazards.	Micro-surfacing, joint sealing, and patching to extend asset life. Surface treatments such as slurry sealing to prevent further deterioration.	Reconstruction using asphalt or slabs (where relevant). Inlays or overlays to strengthen the surface. Full resurfacing and upgrading for cycleways/footways in high-traffic or priority zones.
Sustainability	Scheduling of defect repairs to reduce distances travelled by plant. Plan for permanent repairs where possible to reduce the need for return visits.	Optimise programming of schemes across asset groups Carry out cross-asset work to minimise closures and disruptions.	Application of warm asphalt where the whole lifecycle of the asset is considered. Utilise material recycling where applicable including reuse of paving flags. Use local or national sourced materials Optimise programming of schemes across asset groups Undertake cross asset routine and cyclical works where possible within scheme closures Consideration of environmental constraints (e.g. air quality management areas) and opportunities to avoid or minimise impacts
Performance	Reduce repeat visits to defects year on year Reduce number of defects year on year Rectification of defects within defined timeframes	Increase use of preventative treatments year on year Completion of the annual plan	Maintain condition of the network between a defined level Completion of the annual plan
Resilience	Utilise inspection and defect data to ensure that network disruption is kept to a minimum where key/critical infrastructure or services are with WSCC	Utilise preventive maintenance to reduce the possibility of reactive defects occurring whilst also the protecting the asset from longer more severe deterioration	Utilise planned maintenance to ensure that the asset is resilient to meet future challenges including: Infrastructure and Traffic Growth Modal Shift Climate Change (Rain / Hot Weather)
Communications	Utilise the reporting tool to manage incoming reports and providing updates as to progress through to completion.	Proactive communication informing customers and stakeholders about preventative maintenance processes including benefits and when works are scheduled Provide accurate real time information related to scheme delivery	Proactive communication informing customers and stakeholders about planned maintenance processes including benefits and when works are scheduled. Provide accurate real time information related to scheme delivery

Structures

	Reactive	Cyclical / Preventative	Planned
Data	**CREATE –** Undertake Safety Inspections as per the Highway Inspection manual **USE –** Rectify defects in accordance with the intervention times detailed in the Highway Inspection manual **SHARE –** Make inspection data and defect data available to all relevant staff for reporting purposes, decision-making, and efficient programming of works.	**CREATE –** Conduct a suite of condition surveys, including inspections of retaining walls and acoustic barriers **USE –** Analyse condition data to define long-term maintenance needs and establish short- and medium-term plans of work. **SHARE –** Ensure condition data is available for reporting and programming purposes, and communicate with internal teams	**CREATE –** Conduct in-depth surveys, testing and structural assessments to ascertain the structural condition, identifying long-term needs. **USE –** Utilise condition data to create comprehensive medium and long-term works programmes, aligning with asset management objectives. Risk analysis to identify/prioritise high risk issues **SHARE –** Make detailed condition data available for forward works programming and communicate needs with other asset management teams.
Systems	**STORE –** All condition data to be stored within CONFIRM or a dedicated Structures AM system **USE –** CONFIRM will manage the workflow of the rectification of defects and scheduling of inspections **SHARE –** All relevant staff will have access to systems for accessing and updating data related to structures.	**STORE –** All condition data to be stored within CONFIRM or a dedicated Structures AM system **USE –** CONFIRM will store and manage all condition data, supporting asset lifecycle management. **SHARE –** Enable access to data and system functionalities to relevant teams.	**STORE –** All condition data to be stored within CONFIRM or a dedicated Structures AM system **USE –** CONFIRM will store all condition data supporting cross asset analysis **SHARE –** Relevant teams will have access to condition data to ensure integrated planning and execution.
Treatment Options	Patch and replacement repairs (where appropriate). Emergency temporary works to make the structure safe. Strengthening Works Temporary Road/Lane Closures Graffiti removal (blasphemous)	Joint Sealing. Surface Treatments. Repainting and Recoating (incl Graffiti) Repointing Minor Repairs to address early signs of deterioration. Vegetation clearance Debris leaning	Major structural repairs or reinforcements. Full-scale reconstruction or replacement of severely deteriorated structures. Upgrades to meet current standards and load carrying capacity Full repainting (including graffiti removal) Scour protection works
Sustainability	Schedule defect repairs in a manner that minimises disruption and maximises the use of available resources. Plan for permanent repairs where possible to reduce the need for return visits.	Optimise the scheduling of maintenance activities across asset groups to reduce the need for reactive maintenance. Prioritise works that extend the life of the structures, reducing long-term costs.	Apply sustainable materials and methods where possible to enhance the resilience and longevity of structures. Consider whole-life costs and environmental impacts in the planning and execution of works.
Performance	Reduce repeat visits to defects year on year Reduce number of defects year on year Rectification of defects within defined timeframes	Increase the use of preventative treatments year on year Complete of the annual plan	Maintain condition of the structures assets between defined levels for BCI(Ave) and BCI(Crit) Complete of the annual plan
Resilience	Utilise inspection and defect data to ensure that network disruption is kept to a minimum where key/critical infrastructure or services are with WSCC	Employ preventive maintenance strategies to protect assets from severe deterioration and reduce the need for significant reactive interventions.	Planned works should focus on ensuring that structures can withstand future challenges, including Increased loads Environmental changes Aging infrastructure.
Communications	Utilise reporting tool to manage incoming reports and providing updates as to progress through to completion.	Proactive communication informing customers and stakeholders about preventative maintenance processes including benefits and when works are scheduled Provide accurate real time information related to scheme delivery	Provide clear and proactive communication to stakeholders about planned works, including timelines, impacts, and the benefits of completed projects. Provide accurate real time information related to scheme delivery

Drainage

	Reactive	Cyclical / Preventative	Planned
Data	**CREATE –** Undertake Safety Inspections as per the Highway Inspection manual **USE –** Rectify defects in accordance with the intervention times detailed in the Highway Inspection manual **SHARE –** Make inspection data and defect data available to all relevant staff for reporting purposes, decision-making, and efficient programming of works.	**CREATE –** Conduct a suite of condition surveys in conjunction with the cyclical cleaning regime. **USE –** Analyse condition data to define long-term maintenance needs and establish short- and medium-term plans of work. **SHARE –** Ensure condition data is available for reporting and programming purposes, and communicate with internal teams	**CREATE –** Conduct in-depth CCTV surveys to ascertain the condition, identifying long-term needs. **USE –** Utilise condition data to create comprehensive medium- and long-term works programmes, aligning with asset management objectives. **SHARE –** Make detailed condition data available for forward works programming and communicate needs with other asset management teams.
Systems	**STORE –** All safety inspection data to be stored within CONFIRM/Kaarbontech **USE –** CONFIRM/Kaarbontech will manage the workflow of the rectification of defects and scheduling of inspections **SHARE –** All relevant staff will have access to systems for accessing and updating data related to structures.	**STORE –** All condition data to be stored within CONFIRM/Kaarbontech **USE –** CONFIRM/Kaarbontech will store and manage all condition data, supporting asset lifecycle management. **SHARE –** Enable access to data and system functionalities to relevant teams.	**STORE –** All condition data to be stored within CONFIRM/Kaarbontech **USE –** CONFIRM/Kaarbontech will store all condition data supporting cross asset analysis **SHARE –** Relevant teams will have access to condition data to ensure integrated planning and execution.
Treatment Options	Ironwork Replacement Emergency cleansing including ditch and grip clearance	Gully Cleansing	Draining system replacement or upgrades Replacement of assets as part of other asset group schemes
Sustainability	Schedule defect repairs in a manner that minimises disruption and maximises the use of available resources. Plan for permanent repairs where possible to reduce the need for return visits.	Optimise the scheduling of maintenance activities across asset groups to reduce the need for reactive maintenance. Prioritise works that extend the life of the structures, reducing long-term costs.	Apply sustainable materials and methods where possible to enhance the resilience and longevity of structures. Consider whole-life costs and environmental impacts in the planning and execution of works.
Performance	Reduce repeat visits to defects year on year Reduce number of defects year on year Completion of defects within rectification timeframes	Complete cyclical programme as defined in the annual plan	Reduce the number of potential flooding hotspots within WSCC Completion of the annual plan
Resilience	Utilise inspection and defect data to ensure that network disruption is kept to a minimum where key/critical infrastructure or services are with WSCC	Employ preventive maintenance strategies to protect assets from severe deterioration and reduce the need for significant reactive interventions.	Planned works should focus on ensuring that structures can withstand future challenges, including Increased loads Environmental changes Aging infrastructure.
Communications	Utilise reporting tool to manage incoming reports and providing updates as to progress through to completion.	Proactive communication informing customers and stakeholders about preventative maintenance processes including benefits and when works are scheduled Provide accurate real time information related to scheme delivery	Provide clear and proactive communication to stakeholders about planned works, including timelines, impacts, and the benefits of completed projects. Provide accurate real time information related to scheme delivery

Vehicle Restraint Systems

	Reactive	Cyclical / Preventative	Planned
Data	**CREATE –** Conduct Safety Inspections after incidents that may have impacted VRS to assess immediate needs for repair. **USE –** Update the inventory and condition data based on findings from inspections and repairs. Ensure accurate documentation within the CONFIRM system. **SHARE –** Communicate findings and repair status to relevant stakeholders, ensuring that any temporary repairs are logged and flagged for follow-up.	**CREATE –** Implement a regular inspection schedule to assess the condition of VRS, identifying potential issues before they become critical. **USE –** Use condition data to plan and prioritise maintenance activities, ensuring that resources are allocated efficiently. **SHARE –** Make condition data available to all stakeholders, enabling informed decision-making and efficient programming of preventative works.	**CREATE –** Develop long-term plans for VRS upgrades, particularly in areas with increased traffic or where the existing systems do not meet current standards. **USE –** Utilise condition data and risk assessments to identify and prioritise sections of VRS that require replacement or major upgrades. **SHARE –** Share data with all relevant stakeholders, ensuring alignment with broader infrastructure improvement goals.
Systems	**STORE –** All inspection and repair data are stored within the CONFIRM system to maintain a comprehensive record of VRS conditions. **USE –** CONFIRM will manage the workflow for scheduling and completing repairs, including any follow-up inspections. **SHARE –** All relevant staff have access to CONFIRM for updated information regarding the status of VRS repairs.	**STORE –** All condition data to be stored within CONFIRM **USE –** CONFIRM will store all condition data supporting cross asset analysis **SHARE –** All relevant staff will have access to CONFIRM including access to the data and functionality relating to their role.	**STORE –** All condition data to be stored within CONFIRM **USE –** CONFIRM will store all condition data supporting cross asset analysis **SHARE –** All relevant staff will have access to CONFIRM including access to the data and functionality relating to their role.
Treatment Options	Installation of temporary barriers or crash cushions to make safe immediately after an incident. Replacement of damaged sections, re-tensioning of wire rope safety fences, and realignment of misaligned barriers as result of accident damage.	Replacement of minor components showing signs of wear, addressing corrosion spots, and ensuring all parts are securely fitted. Re-tensioning of tensioned VRS	Replace outdated or damaged VRS with systems that meet current safety standards and specifications Install or remove VRS in areas identified as high or low-risk or where traffic levels and hazards have changed significantly
Sustainability	Scheduling repairs to minimise disruption, including working during off-peak hours. Where possible, recycle materials from damaged VRS for reuse in repairs.	Optimise scheduling to combine cyclic maintenance with other planned works in the area, reducing overall disruption. Consider using more durable materials that require less frequent maintenance.	Use sustainable materials and designs to reduce the frequency of maintenance needs. Optimise programming of schemes across asset groups Undertake cross asset routine and cyclical works where possible within scheme closures Removal of obsolete VRS
Performance	Completion of repairs within rectification timeframes	Completion of the annual plan Complete 100% of scheduled cyclic maintenance tasks within the planned timeframe.	Ensure that all planned VRS upgrades meet or exceed safety standards. Maintain the condition of the VRS network at a desired level
Resilience	Inspect VRS frequently to ensure that they are in optimal condition, particularly in high-risk areas or those prone to accidents. Ensure that temporary repairs are robust enough to maintain safety until permanent repairs can be made.	Utilise preventive maintenance to reduce the possibility of reactive defects occurring whilst also the protecting the asset from longer more severe deterioration	Incorporate the latest safety and design standards into all planned VRS upgrades to ensure long-term resilience. Design VRS systems that can withstand extreme weather conditions and high-impact collisions without significant loss of functionality.
Communications	Utilise reporting tool to manage incoming reports and providing updates as to progress through to completion. Communicate with road users and stakeholders regarding the status of repairs, including any temporary measures in place to ensure safety.	Proactive communication informing customers and stakeholders about preventative maintenance processes including benefits and when works are scheduled Provide accurate real time information related to scheme delivery	Proactive communication informing customers and stakeholders about planned maintenance processes including benefits and when works are scheduled. Provide accurate real time information related to scheme delivery

Street Lighting

	Reactive	Cyclical / Preventative	Planned
Data	**CREATE –** Conduct immediate inspections following reports of outages, damage, or malfunctions in streetlighting assets. **USE –** Rectify defects in accordance with the intervention times detailed in accordance with the PFI contract **SHARE –** make safety inspection and defect data available to all for reporting purposes and informing decision making and efficient programming on works.	**CREATE –** Undertake a suite of surveys to ascertain streetlighting assets condition **USE –** analyse condition data to define long-term asset needs and produce short- and medium-term plans of work **SHARE –** Make condition data available to stakeholders, enabling informed decision-making and efficient programming of preventative maintenance	**CREATE –** Undertake a suite of surveys to ascertain asset condition **USE –** analyse condition data to define long-term asset needs and produce short- and medium-term plans of work **SHARE –** Make condition data available to stakeholders, enabling informed decision-making and efficient work programming
Systems	**STORE –** All safety inspection data to be stored within PFI providers management system (FM by Enerveo) **USE –** PFI providers management system (FM by Enerveo) will manage the workflow of the rectification of defects and scheduling of inspections **SHARE –** All relevant staff will have access to PFI providers management system (FM by Enerveo) including access to the data and functionality relating to their role.	**STORE –** All condition data to be stored within PFI providers management system (FM by Enerveo) **USE –** PFI providers management system (FM by Enerveo) will store all condition data supporting cross asset analysis **SHARE –** All relevant staff will have access to PFI providers management system (FM by Enerveo) including access to the data and functionality relating to their role.	**STORE –** All condition data to be stored within PFI providers management system (FM by Enerveo) **USE –** PFI providers management system (FM by Enerveo) will store all condition data supporting cross asset analysis **SHARE –** All relevant staff will have access to PFI providers management system (FM by Enerveo) including access to the data and functionality relating to their role.
Treatment Options	Temporary – Replacement of bulbs or fuses Permanent - Renewal of damaged streetlight poles, and installation of new lighting fixtures.	Routine Maintenance: Regular cleaning, tightening, and inspection of streetlighting components Minor Repairs: Replacement of asset or components.	Upgrade of outdated street lighting systems with modern, energy-efficient systems external of the PFI – undertaken under separate commissions through scheme delivery teams.
Sustainability	Schedule repairs to minimise energy usage during peak hours. Recycle materials wherever possible. Plan for permanent repairs where possible to reduce the need for return visits.	Optimise programming of schemes across asset groups Undertake cross asset routine and cyclical works where possible within scheme closures	Use sustainable materials and designs that minimise environmental impacts and reduce the need for frequent maintenance. Optimise programming of schemes across asset groups Undertake cross asset routine and cyclical works where possible within scheme closures Consideration of environmental constraints (e.g. dark skies reserve) and opportunities to avoid or minimise impacts
Performance	Maintain 99% of lights in operation at any one time. Attend emergency categorised faults within 2 hours. Attend urgent categorised faults within 24 hours. Attend all reported faults with 3 working days. Faults to be repaired with 3 working days unless further works identified.	Complete 100% of scheduled cyclic maintenance tasks within the planned timeframe, ensuring a high standard of lighting is maintained.	Maintain condition of streetlighting network in good condition
Resilience	Ensure temporary fixes are adequate to maintain safety until permanent repairs can be made Inspect streetlighting frequently, especially in areas prone to severe weather, to maintain a high level of service.	Utilise preventive maintenance to reduce the possibility of reactive defects occurring whilst also the protecting the asset from longer more severe deterioration	Install streetlighting systems that can withstand extreme weather conditions and continue to operate efficiently.
Communications	Utilise PFI provider website Lightsoninwestsussex.co.uk to manage incoming reports and providing updates as to progress through to completion.	Proactive communication informing customers and stakeholders about preventative maintenance processes including benefits and when works are scheduled Provide accurate real time information related to scheme delivery	Proactive communication informing customers and stakeholders about planned maintenance processes including benefits and when works are scheduled. Provide accurate real time information related to scheme delivery

Traffic Signals & Intelligent Transport Systems

	Reactive	Cyclical / Preventative	Planned
Data	**CREATE –** Undertake Safety Inspections following any reports of malfunction, failure, or damage to the asset(s) **USE –** Rectify defects in accordance with best practice and standards/regulations **SHARE –** make safety inspection and defect data available to relevant stakeholders for reporting purposes and informing decision making and efficient programming on works.	**CREATE –** Undertake a suite of surveys to ascertain asset condition **USE –** Analyse condition data to define long-term asset needs and produce short- and medium-term plans of work **SHARE –** Make condition data available to stakeholders, enabling informed decision-making and efficient programming of preventative maintenance	**CREATE –** Undertake a suite of surveys to ascertain asset condition **USE –** analyse condition data to define long-term asset needs and produce short- and medium-term plans of work **SHARE –** make condition data available to relevant stakeholders
Systems	**STORE –** All safety inspection data to be stored within the Service Now and IMTRAC system hosted by the maintenance contractor (Telent). **USE –** The Service Now an RM systems hosted by the maintenance contractor (Telent) will manage the workflow of the rectification of defects and scheduling of inspections **SHARE –** All relevant staff will have access within the Service Now, IMTRAC and RM systems including access to the data and functionality relating to their role.	**STORE –** All condition data to be stored within IMTRAC system hosted by the maintenance contractor (Telent). **USE –** The IMTRAC system hosted by the maintenance contractor (Telent) will store all condition data supporting cross asset analysis **SHARE –** All relevant staff will have access to IMTRAC system hosted by the maintenance contractor (Telent) system including access to the data and functionality relating to their role.	**STORE –** All condition data to be stored within the IMTRAC system hosted by the maintenance contractor (Telent). **USE –** The IMTRAC system hosted by the maintenance contractor (Telent) will store all condition data supporting cross asset analysis **SHARE –** All relevant staff will have access to the IMTRAC system hosted by the maintenance contractor (Telent) including access to the data and functionality relating to their role.
Treatment Options	Fixing faulty components to restore function. Replacement of damaged components	Repair and replacement of asset components	Upgrade of outdated assets (including software, hardware and civil engineering construction) including conformance with updated design standards and modern practices.
Sustainability	Scheduling of defect repairs to reduce distances travelled by plant. Plan for permanent repairs where possible to reduce the need for return visits.	Optimise programming of schemes across asset groups Undertake cross asset routine and cyclical works where possible within scheme closures Plan cyclical works requiring specialist equipment into separate programmes to ensure efficiencies	Incorporate energy-efficient and environmentally friendly components into all planned upgrades and new installations, to reduce the overall carbon footprint Programme works based on geographic locations to maximise material usage and reduce overall carbon footprint Consideration of environmental constraints (e.g. landscape designations) and opportunities to avoid or minimise impacts
Performance	All fault and performance as detailed in the Traffic Signals Term Maintenance contract. For example: Critical categorised faults attended within 2 hours Urgent categorised faults attended within 8 hours. Attend all non-urgent reported faults within 336 hours.	Complete 90% of scheduled site inspections against those planned. Complete 90% of maintenance activities against the total planned to ensure a high standard of signal operation is maintained.	Complete 100% of programmed works
Resilience	Utilise inspection and defect data to ensure that network disruption is kept to a minimum where key/critical infrastructure or services are with WSCC	Utilise preventive maintenance to reduce the possibility of reactive defects occurring whilst also the protecting the asset from longer more severe deterioration	Install traffic signals and ITS systems capable of withstanding extreme weather condition.
Communications	Utilise 24hour contact line and email address to manage incoming reports and providing updates as to progress through to completion. Communicate with the public and other stakeholders regarding ongoing maintenance activities	Proactive communication informing customers and stakeholders about preventative maintenance processes including benefits and when works are scheduled Provide accurate real time information related to scheme delivery	Proactive communication informing customers and stakeholders about planned maintenance processes including benefits and when works are scheduled. Provide accurate real time information related to scheme delivery

Traffic Signs, Bollards & Road Markings

	Reactive	Cyclical / Preventative	Planned
Data	**CREATE –** Undertake inspections following reports of damage, vandalism, or wear affecting traffic signs, road markings, or bollards. **USE –** Rectify identify faults based on the identified from the inspections **SHARE –** make safety inspection and defect data available to relevant stakeholders for reporting purposes and informing decision making and efficient programming on works.	**CREATE –** Undertake a suite of surveys to ascertain the asset condition **USE –** analyse condition data to define long-term asset needs and produce short- and medium-term plans of work **SHARE –** Make condition data available to stakeholders, enabling informed decision-making and efficient programming of preventative maintenance	**CREATE –** Undertake a suite of surveys to ascertain asset condition **USE –** analyse condition data to define long-term asset needs and produce short- and medium-term plans of work **SHARE –** make condition data available to relevant stakeholders
Systems	**STORE –** All safety inspection data to be stored within CONFIRM system **USE –** CONFIRM system will manage the workflow of the rectification of defects and scheduling of inspections **SHARE –** All relevant staff will have access to CONFIRM system including access to the data and functionality relating to their role.	**STORE –** All condition data to be stored within CONFIRM system **USE –** CONFIRM system will store all condition data supporting cross asset analysis **SHARE –** All relevant staff will have access to CONFIRM system including access to the data and functionality relating to their role.	**STORE –** All condition data to be stored within CONFIRM system **USE –** CONFIRM system will store all condition data supporting cross asset analysis **SHARE –** All relevant staff will have access to CONFIRM system including access to the data and functionality relating to their role.
Treatment Options	Replace or repair damaged signs, Repaint faded road markings Replace bollards that have been dislodged or damaged. Clear vegetation obscuring signs	Clean and inspect traffic signs Repaint or refresh road markings Check bollards for alignment, stability, and visibility.	Replace old or obsolete traffic signs with new, highly reflective, and durable materials. Reapply road markings with high-visibility, long-lasting paints Install bollards with high impact resistance and durability.
Sustainability	Prioritise the use of durable materials that reduce the need for frequent replacements Schedule emergency repairs at times that minimise disruption and reduce carbon emissions from traffic delays.	Optimise programming of schemes across asset groups Undertake cross asset routine and cyclical works where possible within scheme closures Use sustainable and recycled materials for road markings and signs and bollards to reduce environmental impact.	Optimise programming of schemes across asset groups Undertake cross asset routine and cyclical works where possible within scheme closures Consideration of environmental constraints (e.g. landscape designations) and opportunities to avoid or minimise impacts
Performance	Reduce repeat visits due to defects year on year Reduce defects year on year Completion of defects within rectification timeframes	Completion of scheduled maintenance tasks within planned timescales	Improve condition of assets based on current baseline
Resilience	Utilise inspection and defect data to ensure that network disruption is kept to a minimum where key/critical infrastructure or services are with WSCC	Utilise preventive maintenance to reduce the possibility of reactive defects occurring whilst also the protecting the asset from longer more severe deterioration	Incorporate materials that withstand extreme weather conditions and heavy traffic ensuring long-term resilience of assets.
Communications	Utilise reporting tool to manage incoming reports and providing updates as to progress through to completion.	Proactive communication informing customers and stakeholders about preventative maintenance processes including benefits and when works are scheduled Provide accurate real time information related to scheme delivery	Proactive communication informing customers and stakeholders about planned maintenance processes including benefits and when works are scheduled. Provide accurate real time information related to scheme delivery

Highway Trees

	Reactive	Cyclical / Preventative	Planned
Data	**CREATE –** Undertake Safety Inspections following reports of tree-related hazard affecting road infrastructure **USE –** Record condition and rectify identified hazard(s) **SHARE –** communicate safety inspection and condition data to all relevant stakeholders	**CREATE –** Undertake a suite of surveys to ascertain the asset condition **USE –** analyse condition data to define long-term asset needs and produce short- and medium-term plans of work **SHARE –** Make condition data available to stakeholders, enabling informed decision-making and efficient programming of preventative maintenance	**CREATE –** Undertake a suite of surveys to ascertain asset condition **USE –** analyse condition data to define long-term asset needs and produce short- and medium-term plans of work **SHARE –** make condition data available to relevant stakeholders
Systems	**STORE –** All safety inspection data to be stored within CONFIRM system **USE –** CONFIRM system will manage the workflow of the rectification of defects and scheduling of inspections **SHARE –** All relevant staff will have access to CONFIRM system including access to the data and functionality relating to their role.	**STORE –** All condition data to be stored within CONFIRM system **USE –** CONFIRM system will store all condition data supporting cross asset analysis **SHARE –** All relevant staff will have access to CONFIRM system including access to the data and functionality relating to their role.	**STORE –** All condition data to be stored within CONFIRM system **USE –** CONFIRM system will store all condition data supporting cross asset analysis **SHARE –** All relevant staff will have access to CONFIRM system including access to the data and functionality relating to their role.
Treatment Options	Removal of fallen trees or branches that pose a danger to public safety or obscure/block the network Pruning of damaged branches to prevent further damage or hazards	Regular Pollarding and trimming to maintain clearance of the network and reduce the risk of falling branches Manage Ash dieback.	Plant new trees in areas identified as needing enhanced green infrastructure.
Sustainability	Plan for permanent tree removals where possible to reduce the need for return visits.	Optimise the scheduling of tree maintenance activities to minimise disruption. Undertake cross asset routine and cyclical works where possible within scheme closures	Optimise programming of schemes across asset groups Undertake cross asset routine and cyclical works where possible within scheme closures
Performance	Reduce repeat visits to defects year on year Reduce number of defects year on year Completion of defects within rectification timeframes	Reduce network disruption because of Highways Tree issues	Increase planting where conditions allow.
Resilience	Utilise inspection and defect data to ensure that network disruption is kept to a minimum where key/critical infrastructure or services are with WSCC	Prioritise maintenance in areas where tree failure could have significant safety implications, such as along major roads or near schools. Monitor the condition of highway trees to identify trends that could indicate the need for more frequent inspections or earlier interventions.	Design tree planting schemes that can adapt to changing environmental conditions and support long-term urban resilience goals.
Communications	Utilise reporting tool to manage incoming reports and providing updates as to progress through to completion.	Proactive communication informing customers and stakeholders about preventative maintenance processes including benefits and when works are scheduled Provide accurate real time information related to scheme delivery	Proactive communication informing customers and stakeholders about planned maintenance processes including benefits and when works are scheduled. Provide accurate real time information related to scheme delivery

Soft Estate/Green Infrastructure

	Reactive	Cyclical / Preventative	Planned
Data	**CREATE –** Undertake inspections following reports of damage to infrastructure affecting road safety **USE –** Record condition and rectify identified damage or hazard **SHARE –** Communicate inspection and hazard data/information to relevant stakeholders	**CREATE –** Undertake a suite of surveys to ascertain the asset condition **USE –** analyse condition data to define long-term asset needs and produce short- and medium-term plans of work **SHARE –** make condition data available to all relevant stakeholders	**CREATE –** Undertake a suite of surveys to ascertain asset condition **USE –** analyse condition data to define long-term asset needs and produce short- and medium-term plans of work **SHARE –** make condition data available to relevant stakeholders
Systems	**STORE –** All safety inspection data to be stored within CONFIRM system **USE –** CONFIRM system will manage the workflow of the rectification of defects and scheduling of inspections **SHARE –** All relevant staff will have access to CONFIRM system including access to the data and functionality relating to their role.	**STORE –** All condition data to be stored within CONFIRM system **USE –** CONFIRM system will store all condition data supporting cross asset analysis **SHARE –** All relevant staff will have access to CONFIRM system including access to the data and functionality relating to their role.	**STORE –** All condition data to be stored within CONFIRM system **USE –** CONFIRM system will store all condition data supporting cross asset analysis **SHARE –** All relevant staff will have access to CONFIRM system including access to the data and functionality relating to their role.
Treatment Options	Removal or trimming of overgrown vegetation Siding out of footways	Routine pruning, trimming and mowing to maintain clear lines of sight and prevent overgrowth Undertake twice yearly weed spraying	Implement upgrades to green infrastructure features
Sustainability	Recycle vegetation debris as mulch or compost. Plan for permanent repairs where possible to reduce the need for return visits.	Optimise programming of schemes across asset groups Undertake cross asset routine and cyclical works where possible within scheme closures	Optimise programming of schemes across asset groups Undertake cross asset routine and cyclical works where possible within scheme closures
Performance	Reduce repeat visits to defects by year on year Reduce defects year on year Completion of defects within rectification timeframes	Increase activities within other asset groups planned activities	Increase management where planned schemes allow
Resilience	Utilise inspection and defect data to ensure that network disruption is kept to a minimum where key/critical infrastructure or services are with WSCC Inspect and maintain green infrastructure in high-risk areas regularly to prevent issues from escalating.	Utilise preventive maintenance to reduce the possibility of reactive defects occurring whilst also the protecting the asset from longer more severe deterioration Monitor the condition of green infrastructure to identify trends that could indicate the need for more frequent inspections or proactive interventions.	Design soft estate and green infrastructure projects that can adapt to changing environmental conditions
Communications	Utilise reporting tool to manage incoming reports and providing updates as to progress through to completion. Communicate with the public and stakeholders about ongoing maintenance activities, especially when they impact access or safety.	Proactive communication informing customers and stakeholders about preventative maintenance processes including benefits and when works are scheduled Provide accurate real time information related to scheme delivery	Proactive communication informing customers and stakeholders about planned maintenance processes including benefits and when works are scheduled. Provide accurate real time information related to scheme delivery

Street Furniture

	Reactive	Cyclical / Preventative	Planned
Data	**CREATE –** Undertake inspections following reports of damage to infrastructure affecting road safety **USE –** Record condition and rectify identified damage or hazard **SHARE –** Communicate inspection and hazard data/information to relevant stakeholders	**CREATE –** Undertake a suite of surveys to ascertain the asset condition **USE –** analyse condition data to define long-term asset needs and produce short- and medium-term plans of work **SHARE –** Make condition data available to stakeholders, enabling informed decision-making and efficient programming of preventative maintenance	**CREATE –** Undertake a suite of surveys to ascertain asset condition **USE –** analyse condition data to define long-term asset needs and produce short- and medium-term plans of work **SHARE –** make condition data available to relevant stakeholders
Systems	**STORE –** All safety inspection data to be stored within CONFIRM system **USE –** CONFIRM system will manage the workflow of the rectification of defects and scheduling of inspections **SHARE –** All relevant staff will have access to CONFIRM system including access to the data and functionality relating to their role.	**STORE –** All condition data to be stored within CONFIRM system **USE –** CONFIRM system will store all condition data supporting cross asset analysis **SHARE –** All relevant staff will have access to CONFIRM system including access to the data and functionality relating to their role.	**STORE –** All condition data to be stored within CONFIRM system **USE –** CONFIRM system will store all condition data supporting cross asset analysis **SHARE –** All relevant staff will have access to CONFIRM system including access to the data and functionality relating to their role.
Treatment Options	Deploy temporary solutions to address immediate safety hazards until permanent repairs can be implemented Repair or replace damaged street furniture	Regular cleaning and repainting of street furniture assets to maintain appearance and prevent corrosion or decay.	Replace outdated or damaged street infrastructure Install additional street infrastructure in areas identified as requiring improved facilities
Sustainability	Prioritise the use of durable, sustainable materials for repairs and replacement Plan for permanent repairs where possible to reduce the need for return visits.	Optimise programming of schemes across asset groups Undertake cross asset routine and cyclical works where possible within scheme closures	Install street furniture made of materials which are recyclable and environmentally friendly. Optimise programming of schemes across asset groups Undertake cross asset routine and cyclical works where possible within scheme closures Consideration of environmental constraints (e.g. landscape designations) and opportunities to avoid or minimise impacts
Performance	Reduce repeat visits to defects year on year Reduce defects year on year Completion of defects within rectification timeframes	Increase repairs year on year	Improve condition of the assets.
Resilience	Utilise inspection and defect data to ensure that network disruption is kept to a minimum where key/critical infrastructure or services are with WSCC	Utilise preventive maintenance to reduce the possibility of reactive defects occurring whilst also the protecting the asset from longer more severe deterioration Monitor the condition of green infrastructure to identify trends that could indicate the need for more frequent inspections or proactive interventions.	Utilise and deploy street furniture assets that can adapt to changing environmental conditions
Communications	Utilise reporting tool to manage incoming reports and providing updates as to progress through to completion. Communicate with the public and stakeholders about ongoing maintenance activities, especially when they impact access or safety.	Proactive communication informing customers and stakeholders about preventative maintenance processes including benefits and when works are scheduled Provide accurate real time information related to scheme delivery	Proactive communication informing customers and stakeholders about planned maintenance processes including benefits and when works are scheduled. Provide accurate real time information related to scheme delivery

Glossary

Arboriculture inspection	A survey to record trees that may be at risk of causing harm or damage.
BCI	Bridge Condition Index – A nationally developed methodology for expressing the condition of bridges.
CONFIRM	A software application to the management of highways networks and assets
CVI	Course Visual Inspection – This is a rapid survey that is deployed on the unclassified network to establish condition.
DfT	Department for Transport – Central government department overseeing transport in England. Provides policy, guidance, and funding to local authorities to maintain the local road network.
DVI	Detailed Visual Inspection – A walked inspection and survey that is more detailed than the CVI survey.
FM	Facilities Management – This refers to the coordination of physical asset and services to ensure functionality, safety and efficiency.
FNS	Footway Network Survey – A walked survey of the footway network to establish the condition.
GIS	Geographic Information Systems - Information technology systems that can be manipulated to process, analyse and display geospatial data relating to the asset.
HTP	Highways, Transport and Planning directorate.
KaarbonTech	A software application for managing the highways drainage assets
IMTRAC	A comprehensive asset and fault management system. Used for the management of the traffic signalling and traffic control.
ITS	Intelligent Transport Systems - Information Technology and communication systems that allow traffic signal junctions and crossings to communicate with one another to improve traffic flow and network efficiency
PFI	Private Finance Initiative – This is a type of public-private partnership (PPP), used to fund major capital investments.
RMMS	Routine Maintenance Management System - This system implements management procedures for routine maintenance. It enables all inspection and other reports to be assessed in conjunction with the inventory previous maintenance actions
SCANNER	Surface Condition Assessment for the National Network of Roads – This is based on a national set of parameters to establish the condition.
SCRIM	Sideways Force Coefficient Routine Investigation Machine – Accredited process to measure the skid resistance properties of a carriageway.
TWCS	Thin Wearing Course Surface – A carriageway surface treatment that involves the application of a thin layer of high-performance asphalt
UKPMS	United Kingdom Pavement Management System -This is a standard for computer systems that support the management of programmed maintenance of hard paved areas within the highway, and the monitoring of condition and need for