

# Highway Infrastructure Asset Management Strategy 2025-2030

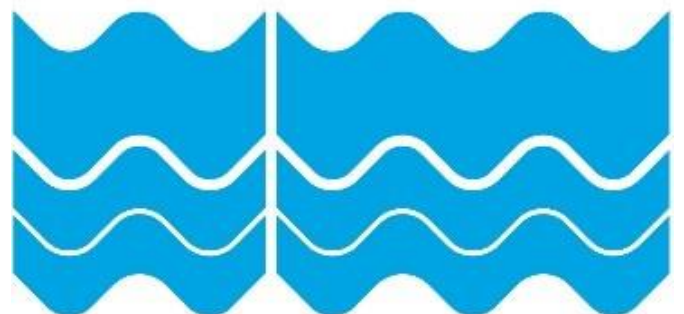
**Strategic Document**

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**East Sussex**  
County Council



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## **Executive Summary**

The East Sussex highway network is one of the county's most valuable public assets—vital to economic activity, daily travel, and community wellbeing. As pressures grow from climate change, funding constraints, and ageing infrastructure, a clear, strategic approach to managing this network is more important than ever.

This Highway Infrastructure Asset Management Strategy 2025–2030 sets out how East Sussex County Council will manage its highway assets in a safe, sustainable and cost-effective way. Guided by the principles of risk-based decision-making, whole-life asset planning and alignment with ISO 55000, the strategy ensures resources are focused where they deliver the greatest public value.

Key priorities include:

- **Protecting the Resilient Network** – the roads and routes essential for emergency response, economic continuity and community access.
- **Targeted investment** using lifecycle modelling and data-driven planning to maximise long-term value.
- **Balancing resources** across the network, with priority given to the resilience of the most important routes for our communities.
- **Ongoing innovation** - embracing both digital technologies and physical advancements to strengthen performance and ensure continuous improvement

Delivery will be led through The Council's long-term partnership with Balfour Beatty Living Places, underpinned by performance-based contracting and collaborative governance. Regular reviews will ensure the strategy adapts to new risks, changing policy, and stakeholder needs.

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## **Document Control**

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### **Previous Versions:**

- 1.0 Highway Infrastructure Asset Management Strategy 2015-2020
  - Plan created.
  - Approved by LMTE 15.10.2015
- 2.0 Highway Infrastructure Asset Management Strategy 2015-2018
  - Update to accessible format
  - Approved by LMTE 19.11.2018
- 3.0 Highway Infrastructure Asset Management Strategy 2022-2028
  - Updated to reflect best practice.
  - Approved by LMTE 19.12.2022

### **2025 Review Detail:**

- 4.0 Highway Infrastructure Asset Management Strategy 2025-2030
  - Document format amended to compliment and align with suite of Highway Infrastructure Asset Management Plans (HIAMP). Content updated to reflect best practice at time of writing - in line with ISO 55000, there is no change to the management principles set out in Version 3.0
  - This strategy highlights five key Development Areas - priority themes for improving how we manage the highway network. These are not an exhaustive list but represent our current focus areas, with each referenced in the main text and explained in Appendix A.

## 1. **Scope**

This Highway Infrastructure Asset Management Strategy sets out the overarching framework for the management of the highway infrastructure maintained by East Sussex County Council (**The Council**). It sets the strategic direction for how The Council manage assets, delivering long-term value, support statutory duties, and aligning with local and national objectives.

The role of the strategy is to:

- Enable clear and consistent decision-making across all highway asset types.
- Support risk-based planning and transparency, giving confidence to the public, elected members and partners.
- Deliver joined-up outcomes, including safer roads, a more resilient network, and more sustainable construction practices.

The strategy is designed to be adaptive and will be reviewed regularly to reflect emerging policy, changing risks and future funding opportunities. It is the strategic framework for asset management; it does not cover operational detail. Specific approaches to the management of individual asset groups are set out in the Asset Management Plans which sit beneath this strategy.

### 1.1. **What is Highway Asset Management?**

Highway asset management is a strategic, data-driven approach to optimising the lifecycle of highway infrastructure assets. It supports informed decision making that balances cost, risk and performance. Ensuring a safe, reliable and sustainable transport network for current and future users.

At East Sussex, this work is led by the Asset Management Team, a specialist group within The Council's Contract Management Group. The Asset Management Team brings together expertise in data analysis, engineering, planning and risk management to ensure that national policy, local priorities, and funding are translated into effective, evidence-based programmes of work.

### 1.2. **Asset Covered**

The strategy applies to all highway assets for which The Council is the Highway Authority under the Highways Act 1980. This includes, but is not limited to:

- Carriageways (roads maintained at public expense)
- Footways and cycleways
- Structures (bridges, retaining walls, culverts)
- Drainage systems (including gullies and roadside ditches)
- Street lighting and illuminated signs
- Traffic signals and associated systems
- Street furniture (e.g. barriers, bollards, benches, and signage)

This strategy does not apply to:

- Motorways and trunk roads, which are the responsibility of National Highways
- Privately maintained roads, including unadopted roads and private estates

- Public rights of way not forming part of the adopted highway network (these may be addressed under a separate Rights of Way Improvement Plan)
- Assets managed by third parties, such as:
  - Developer-maintained roads prior to formal adoption
  - Utility infrastructure (e.g. inspection covers, poles, cabinets)
  - District or borough-owned assets (e.g. park roads, car parks and non-highway lighting)

Where third-party assets interface with the adopted highway network, The Council works in partnership to ensure safety, connectivity, and continuity of service.

## **2. Strategic Context**

The management of East Sussex's highway infrastructure is shaped by a complex and evolving policy environment. This section outlines the strategic foundations that influence how The Council plan, maintain, and invest in the network. This includes national policy and legislation, local priorities and emerging long-term challenges.

### **2.1. From Policy to Pavement: A Clear Line of Sight**

The Council's approach follows a clear "Policy to Pavement" pathway. Highway policies define the purpose and obligations of managing the highway network - the statutory duties, local priorities, and outcomes the service must support. These are then translated into strategy documents that set the direction and priorities for asset management. Detailed Asset Management Plans (**HIAMP**) take this further, setting out how the service will be delivered in practice.

As part of this pathway, The Council defines clear levels of service that set out what residents and businesses can expect from the highway network in terms of safety, accessibility and condition. They provide transparency about the trade-offs that must be made in a constrained funding environment, while ensuring that critical routes and vulnerable users remain the highest priority.

The pathway is reinforced by supporting documents such as the Highway Network Resilience Plan, financial strategies, and risk management frameworks. Together, these create a transparent line of sight from policy to pavement, demonstrating how The Council's vision is consistently applied in practice.

### **2.2. National Policy Alignment**

This asset management approach aligns with key national policies and statutory obligations:

- **Well-Managed Highway Infrastructure (UKRLG Code of Practice).** The Council apply the principles of this national code, particularly its emphasis on risk-based decision-making and whole-life asset planning.
- **Highways Act 1980.** The Council has a legal duty to maintain public highways in a safe condition.
- **Traffic Management Act 2004.** The Council are committed to minimising disruption and maintaining availability of the network.
- **Equality Act 2010 & Climate Change Act 2008.** Accessibility and environmental sustainability are embedded in both policy development and operational delivery.

- **Department for Transport (DfT) Incentive Fund.** Asset management practices are designed to meet self-assessment criteria, ensuring access to incentivised maintenance funding.

### 2.3. Local Policy Alignment

This Strategy directly supports The Council's wider strategic goals and transport priorities, including:

- **Local Transport Plan 4 (LTP4).** Aligning maintenance and renewal programmes with the County's long-term goals for a decarbonised, safe and accessible transport system.
- **Climate Emergency Plan and Environment Strategy.** Integrating low-carbon practices, climate adaptation and sustainability into asset planning.
- **East Sussex County Council Corporate Plan.** Supporting key outcomes such as safer communities, inclusive growth, digital connectivity and improved public health.
- **Highway Network Resilience Plan.** Prioritising investment for routes critical to community access and emergency response, particularly in the face of extreme weather.

### 2.4. Strategic Drivers

Several broader challenges reinforce the need for a long-term, evidence-based asset management strategy:

- **Ageing Infrastructure.** Many assets are nearing or beyond their original design life, requiring careful planning around renewal and lifecycle extension.
- **Financial Constraints.** Rising costs and static funding levels necessitate prioritisation based on risk, value, and service impact.
- **Climate Change and Decarbonisation.** More frequent flooding, heatwaves, and coastal risks demand infrastructure that can adapt, while maintenance practices must also reduce emissions and support The Council's net-zero commitment.
- **Public Expectations.** Users expect safe, reliable services and transparency in decision-making.

### 2.5. Alignment with ISO 55000

The Council's asset management approach aligns with the core principles of the ISO 55000 Asset Management Standard. Although not currently certified, ISO 55000 provides a recognised best-practice framework for structured, value-driven, and transparent infrastructure management.

The standard underpins strategic direction by:

- Promoting integration between asset planning and wider organisational objectives.
- Reinforcing the use of risk-based and whole-life methodologies.
- Supporting a culture of continuous improvement and informed decision-making.
- These principles are embedded throughout this strategy

### 2.6. Strategic Application Across Asset Groups

All AMP's developed under this strategy reflect a common set of strategic priorities that guide asset-specific planning and delivery.



These themes respond to key policy drivers and ensure consistency across asset groups:

- **Digital Transformation:** Using Confirm, Predictor, GIS, and mobile data capture to improve forecasting and efficiency.
- **Carbon and Climate Accountability:** Embedding sustainability in design, materials, and construction methods.
- **Transparency and Public Value:** Communicating investment decisions and trade-offs clearly.
- **Innovation and Resilience:** Applying new technologies and approaches to extend asset life and improve service continuity.
- **Financial Prudence:** Aligning delivery with realistic funding levels.

## 2.7. Core Principles of Highway Asset Management

The Council's approach to highway asset management is built on a set of core principles that guide all decisions, from high-level strategy to day-to-day operations. These principles reflect national best practice, including ISO 55000 and the UK Roads Liaison Group's Code of Practice. They ensure that The Council makes informed, consistent, and transparent decisions that deliver the greatest value to residents and the wider economy:

- **Risk-Based Decision Making** – prioritising interventions based on the likelihood and consequence of asset failure.
- **Whole-Life Asset Planning** – considering the full lifecycle of every asset to avoid reactive, short-term fixes.
- **Resilience and Critical Network Focus** – giving heightened priority to the Resilient Network essential for emergency response, economic continuity and daily access.
- **Financial Sustainability** – applying prioritisation where resources are constrained, focusing spend on critical assets while managing lower-risk parts of the network at a safe and acceptable standard.
- **Data-Led, Transparent Planning** – using tools like Confirm and Predictor to drive modelling, forecasting, and prioritisation, supported by clear performance reporting.
- **Continuous Improvement and Innovation** – fostering a culture of learning, piloting new materials and methods, and engaging with national initiatives to benchmark and improve.

## 3. Governance and Delivery

The governance and delivery arrangements for this strategy are structured to ensure transparency, risk-based planning, and alignment with long-term asset management principles.

### 3.1. Governance

The Council operates a defined governance framework to oversee contract delivery and strategic outcomes:

- A multi-disciplinary Contract Management Group provides oversight across commercial, performance and service development functions.
- Performance is tracked using a consistent set of Key Performance Indicators (KPIs) and service reviews to ensure alignment with strategic objectives.

- Strategic and operational risks are reviewed through structured processes that support informed, whole-life value decision-making.

This framework supports strong leadership, clear accountability, and a culture of continuous improvement.

### **3.2. Delivery**

Highway services are delivered through a long-term, performance-led contract with a term contractor. The contract is based on the NEC4 model and is designed to promote collaboration, flexibility, transparency, and proactive risk management.

Delivery is structured around three key mechanisms:

- Lifecycle Planning – Asset-specific plans are used to inform investment decisions and optimise performance across asset groups.
- Forward Works Programmes – Data-driven, risk-informed programmes guide planned maintenance and renewals, ensuring value for money and service continuity.
- Performance-Based Contracting – The contract includes measurable outcomes and performance targets that incentivise efficiency, innovation, and customer responsiveness.

This model enables evidence-based planning, efficient service delivery and ongoing strategic alignment.

### **3.3. Monitoring and Review – Contract Performance and Strategic Alignment**

Performance management of the highway contract is central to achieving the objectives of this strategy. The contract is designed to deliver specific outcomes identified during procurement, focusing on long-term asset sustainability, value for money and improved customer experience.

Continuous improvement is driven by a consistent set of Service Performance Indicators (SPIs) and Key Performance Indicators (KPIs) with selected SPI targets increasing annually to promote enhanced service delivery.

Performance is monitored through a rigorous audit process by both the Contracts Management Group (Council) and the Contractor's (BBLP) internal audits, ensuring transparency and accountability.

Strategic oversight is provided by the monthly Service Management Board; comprising senior council and BBLP representatives, who review performance, manage risks and align activities with the asset management strategy. Their findings guide operational improvements and strategic planning.

In addition, lessons and performance data inform contract refinement. These insights help evolve the Highway Infrastructure Asset Management Strategy over time.

## **4. Asset Management Framework**

This strategy is delivered through a structured Asset Management Framework that translates high-level priorities into clear plans, performance measures, and delivery activities. It provides a consistent and transparent approach for managing all highway asset types across their full lifecycle.

The framework is designed to align with national guidance, including ISO 55000 and the Well-Managed Highway Infrastructure Code of Practice. It enables The Council to deliver on the principles outlined in Section 2.6, including risk-based decision-making, whole-life planning, resilience, financial sustainability, and continuous improvement.

#### **4.1. Asset Management Process**

The asset management approach in East Sussex follows a structured, continuous-improvement cycle:

- **Strategy & Objectives** – Set direction in line with national guidance, transport goals, and community priorities.
- **Asset Data** – Maintain reliable condition and inventory records through Confirm and inspections.
- **Risk & Lifecycle Modelling** – Use forecasting tools and risk analysis to identify the best timing for intervention.
- **Prioritisation** – Build forward works programmes that maximise value and minimise risk.
- **Delivery** – Implement works through a performance-led contract (NEC4), monitored by KPIs.
- **Review & Feedback** – Use lessons learned, performance results, and stakeholder input to refine plans.

#### **4.2. Key Components**

This strategy is delivered through a framework of six interrelated components. Together, they provide the practical structure that takes The Council's commitments from policy to pavement (as set out in Section 2) — ensuring that high-level policy direction is consistently translated into effective delivery on the ground.

- 1) **Policy and Strategy** – Defines strategic direction and sets out The Council's commitment to managing assets in line with local, regional, and national priorities.
- 2) **Planning and Lifecycle Management** – Applies lifecycle models, condition data, and risk prioritisation to plan interventions that maximise long-term value and network resilience.
- 3) **Asset Information and Systems** – Maintains accurate, current data through Confirm and GIS-based systems to inform operational and strategic decision-making.
- 4) **Delivery and Governance** – Delivers asset management plans through a performance-led partnership with Balfour Beatty Living Places, underpinned by transparent governance arrangements.
- 5) **Monitoring and Review** – Tracks performance using defined metrics, audits, and stakeholder feedback to support continuous learning and improvement.
- 6) **Stakeholder Engagement** – Ensures transparency and responsiveness through regular consultation, reporting, and alignment with community needs.

#### **4.3. Alignment Across Asset Types**

Each HIAMP applies this framework to specific asset groups (e.g., carriageways, footways, drainage, structures). While the detail varies, the common principles and planning approach remain consistent, ensuring fair, evidence-based investment across the network.

## **5. Stakeholder Engagement**

The highway network touches every resident and business in East Sussex. Regular, two-way engagement is a core part of this strategy. It ensures decisions are transparent, firmly based on local needs, and deliver the best value for communities and the economy.

Engagement provides the feedback loop that connects high-level decisions with day-to-day delivery.

### **5.1. Engagement Goals**

- Align asset management plans directly with community and business needs.
- Provide clear, accessible information on how priorities and budgets are set.
- Use local insight to actively improve network condition and the user experience.

### **5.2. Out Stakeholders**

The Council engages with a wide range of stakeholders to ensure the highway network delivers for everyone. We work with the public and vulnerable road users to guarantee daily safety and accessibility; Elected Members and Parish Councils to embed democratic oversight and reflect local priorities; businesses and freight operators to support economic growth and keep goods moving reliably; public transport providers and emergency services to safeguard continuity of essential services and resilience; and utilities, contractors and regulators such as the DfT to coordinate works, maximise investment, and ensure compliance with national standards.

### **5.3. Methods of Engagement**

The Council engages through a range of channels to ensure voices are heard and decisions are transparent:

- Consultations and Surveys – capture community priorities and measure satisfaction.
- Member Briefings and Local Forums – provide democratic input on area-specific issues.
- Customer Channels – enable easy reporting of defects, enquiries, and complaints.
- Data and Performance Reporting – share open dashboards and annual updates for accountability.
- Joint Working Groups – support collaboration on policy reviews and innovation pilots.

### **5.4. Where Engagement Sits in the Process**

Engagement is embedded at every stage of the asset management cycle, ensuring that the voices of residents, businesses, and partners are reflected in decisions. This provides a clear line of sight from high-level commitments through to delivery on the ground — supporting The Council's Policy to Pavement approach.

- Strategy and Policy – shaped through public and Member consultation.
- Service-Level Setting – informed by feedback on the balance of risk, cost, and impact.
- Programme Planning – refined through local consultation on schemes and priorities.
- Delivery and Review – strengthened through performance dashboards, feedback, and lessons learned.

Clear, consistent messaging is provided jointly by The Council and East Sussex Highways communications teams. The feedback loop is strengthened each year to keep dialogue active and ensure continuous improvement across the asset lifecycle.

## **6. Highway Asset Inventory**

The Council manages a diverse range of highway assets, each with distinct characteristics, management requirements, and performance expectations. In line with the principles set out in ISO 55000 and the UKRLG's Well-Managed Highway Infrastructure code of practice, these assets are managed through a structured, risk-based approach that considers lifecycle planning, performance monitoring and cost-effectiveness.

### **6.1. Highway Infrastructure Asset Management Plan (HIAMP)**

Each major infrastructure asset group is supported by a dedicated management plan. These plans serve as the operational delivery mechanisms for this overarching strategy, setting out how the objectives will be achieved at the asset level. They are reviewed annually to reflect changes in network condition, funding levels, emerging risks and stakeholder priorities.

This structured approach ensures consistency across asset groups and supports alignment with both local priorities and national guidance. It also enables transparent, evidence-led decision-making that balances performance, cost, risk and public value.

### **6.2. Data Confidence Scoring**

Data confidence is critical for effective asset management and investment prioritisation. It reflects the accuracy, completeness, and value of both inventory and condition data, guiding where data improvement efforts are focused.

The data confidence scale used by the authority is:

- A (High): Complete and accurate inventory and condition data, collected using industry-standard methods and updated regularly.
- B (Medium-High): Generally reliable data with minor gaps or uncertainties; typically based on regular surveys and inspections.
- C (Medium): Partial data coverage or variable quality; may include older data or limited inspection frequency.
- D (Low): Incomplete or outdated data requiring urgent improvement to support effective decision-making.

See Appendix C. for overview of Data Confidence for each asset type.

Efforts are ongoing to improve data quality, particularly for assets with lower confidence scores, to support lifecycle planning and risk management.

## **Development Area 1 – Data Confidence Improvement Plan**

### **6.3. Resilient Network**

The Resilient Network represents the portion of the highway network that is essential for maintaining economic activity, emergency response, and community connectivity during extreme events or network disruptions. It includes key routes that:

- Support access to emergency services and critical facilities.
- Enable strategic and local movement for people and goods.

- Provide continuity during severe weather or major incidents.

The prioritisation of these routes aligns with The Council's core asset management principles, particularly the focus on risk-based decision-making, asset criticality and service continuity. By concentrating investment and proactive maintenance on this network, The Council ensures that limited resources protect the most vital parts of the infrastructure.

The Resilient Network is reviewed regularly to reflect changing land use, economic priorities, and emerging risks such as climate impacts. It informs asset-specific plans, lifecycle modelling, and risk management decisions across highway asset types.

The Council will continue to integrate the Resilient Network into asset management planning and investment prioritisation, supporting long-term resilience and public value.

#### **6.4. Network Hierarchy**

In response to the 2016 Code of Practice 'Well Managed Highway Infrastructure', each street on The Council's highway network has been assigned a hierarchy level, the level allocated reflects the current and expected use and local economic and social factors such as industry, schools, hospitals and similar. As well as the desirability of continuity and of a consistent approach for walking and cycling.

The hierarchy plays a critical role in informing risk-based decision-making by guiding the prioritisation of maintenance, inspection frequencies, investment allocation, and resource deployment according to the function and importance of each route within the network

A review of the current network hierarchies in East Sussex was undertaken in May 2025 to ensure that management is focused on the roads of greatest need and that the 'Resilient Network' is reflected as a priority. Appendix D contains the full results of this review, setting out the carriageway maintenance hierarchies that the Council has adopted as of 2025

### **7. Data Management and Information Systems**

Robust and reliable data management underpins the effective delivery of The Council's highway asset management objectives. The ability to make timely, data-driven decisions depends on the integrity and integration of information systems. Accurate and well-structured information supports evidence-based decision making, lifecycle planning and service performance monitoring.

#### **7.1. Asset Management System Transition**

In 2025 The Council are transitioning from the XA system to *Confirm* as its centralised Asset Management System (AMS). This transition brings us into alignment with BBLP (term contractor) system, promoting more seamless data integration, operational efficiency and shared visibility of asset and works information.

In parallel, in September 2025 to support long-term, risk-based decisions across all asset groups, the Asset Management Team are adopting *Predictor* - a specialist lifecycle modelling and investment planning tool.

Predictor enables robust scenario modelling, optimised maintenance strategies and data-driven prioritisation of works programmes, particularly in the context of constrained budgets and climate resilience.

## **7.2. Role of Data in Asset Management**

Asset data supports a wide range of asset management functions, including:

- Maintaining accurate inventories of asset types and locations
- Tracking condition trends through regular surveys and inspections
- Supporting lifecycle modelling and funding decisions
- Planning and programming both reactive and planned maintenance
- Managing risk and resilience across the network
- Demonstrating accountability and transparency in decision making

## **7.3. Core Systems and Integration**

The Confirm AMS integrates the following data sources and functions:

- *Asset Registers*. Comprehensive inventories for carriageways, footways, structures, lighting, signs, drainage and street furniture.
- *Condition Surveys and Inspections*. Data from Course Visual Inspections (CVI), SCANNER, SCRIM, structural inspections and other regime-based surveys.
- *Geographic Information Systems (GIS)*. Spatial referencing of assets and work locations.
- *Customer Service Records*. Capturing enquiries, complaints and public reports.
- *Works Ordering and Job Management*. Real-time tracking of inspections, repairs and programmed works.

Confirm and Predictor are designed to interoperate, enabling condition data and investment scenarios to feed directly into programming and asset lifecycle decisions.

## **7.4. Data Quality and Governance**

Data quality is maintained through defined procedures for data entry, validation, review and updating. Governance arrangements ensure that:

- Data is owned and maintained by trained officers.
- Data standards and formats are consistent with national guidance (e.g. UKRLG's Data Standard).
- Data quality dimensions are monitored (e.g. accuracy, completeness, timeliness, validity).
- All systems are operated in compliance with GDPR and cybersecurity best practices, ensuring that sensitive data is securely managed.

## **Innovation and Continuous Improvement**

The Council is committed to harnessing both innovation in physical practices and digital capability to improve asset management. Future improvements may include:

- Mobile data collection and field-based updating through Confirm.
- Use of AI or remote sensing tools (sign recognition or lining condition).
- Improved public-facing mapping and performance dashboards.
- Collaboration with national digital highways initiatives (e.g. DfT, ADEPT Live Labs).
- Adoption of innovative materials and construction methods to extend asset life and reduce environmental impact.

- Trialling new maintenance techniques and equipment to improve efficiency and safety on site.

Through the Council's investment in Confirm and Predictor, alongside physical innovations in materials and maintenance, the Council is building a more connected, intelligent, and proactive approach to managing its highway infrastructure for the long term.

## Development Area 2 – Digital Innovation and Integration

### 8. Network Value

Knowing the financial value of the highway network is key to long-term planning, investment, and responsible public asset management. The valuation below follows CIPFA guidance and supports the Department for Transport (DfT) Incentive Fund self-assessment requirements, ensuring The Council meets national expectations for robust asset valuation. It uses updated Building Cost Information Service (BCIS) indices, detailed inventory data, and reasonable assumptions on asset condition and deterioration.

<b>Asset Group</b>	<b>Ave BCIS</b>	<b>Ave Decline</b>	<b>GRC 2025</b>	<b>DRC 2025</b>	<b>Depreciation</b>
Carriageway	+32%	-10%	£4,184,938,980	£3,140,830,460	£1,044,108,520
Footways & Cycleway	+30%	-7%	£530,553,050	£342,675,450	£187,877,600
Highway Structures	+31%	-5%	£692,120,400	£394,513,150	£297,607,250
Street Lighting	+23%	-5%	£83,970,700	£25,952,100	£58,018,600
Traffic Signals	+26%	-6%	£17,528,300	£8,130,060	£9,398,240
Street Furniture	+26%	-7%	£27,253,850	£11,041,660	£16,212,190
<b>Total</b>			<b>£5,536,365,280</b>	<b>£3,923,143,880</b>	<b>£1,613,221,400</b>

- The Gross Replacement Cost (GRC) represents the estimated cost to replace all GRC (Gross Replacement Cost): Cost to replace all assets with new equivalents.
- DRC (Depreciated Replacement Cost): Current value of assets after accounting for wear and age.

The £1.6 billion depreciation gap highlights the scale of investment needed to restore the network to "as new" condition. This gap highlights the importance of prioritising preventative maintenance and targeted renewals to arrest decline and reduce future liabilities.

A full asset revaluation will be carried out in the next strategy cycle (2025-27), following CIPFA, HM Treasury, and DfT Incentive Fund guidance, ensuring robust evidence for future funding bids and lifecycle investment planning.

## Development Area 3 – Asset Revaluation & Depreciation Update

### 9. Risk Management

Risk management is embedded throughout The Council's asset management approach and aligns with the principles of ISO 55000, the UK Highways Infrastructure Asset Management Guidance (HIAMG), and the Well-Managed Highway Infrastructure Code of Practice



(UKRLG, 2016). In line with core principles (Section 2.6), we apply a proportionate, risk-based methodology to all aspects of maintenance planning, investment and service delivery.

### **9.1. Types of Risk**

The Council takes a proactive approach to risk, assessing six key categories to guide decision-making and mitigation:

- Health & Safety – risk to the public, operatives, and network users.
- Strategic – long-term threats to objectives or service delivery.
- Financial – funding, affordability, and cost risks.
- Regulatory/Legal – statutory or contractual compliance risks.
- Reputational – risks to stakeholder trust and confidence.
- Operational – day-to-day risks such as asset failure or severe weather.

Each risk is evaluated based on its likelihood and impact to guide mitigation efforts.

### **9.2. Risk Register and Management**

Risks are recorded in the Highways Risk Register and reviewed in accordance with The Council's corporate risk framework. This supports governance, visibility and accountability. Mitigations are regularly assessed for effectiveness, and updates reflect changes in network condition or wider circumstances. Stakeholders contribute to risk identification and treatment.

### **9.3. Risk-Based Decision-Making**

A structured, risk-based approach informs:

- Inspection and maintenance regimes
- Response times and service levels
- Investment prioritisation and lifecycle planning
- Network resilience initiatives

This ensures limited resources are directed to the areas of highest need and greatest potential benefit.

### **9.4. Competency and Capability**

Personnel involved in risk-based decisions receive appropriate training and operate within defined competency frameworks. Ongoing professional development ensures consistent, high-quality application of risk-based methods. This complements The Council's broader investment strategy set out in Section 10.

The Asset Management Team plays a lead role in:

- Monitoring asset condition and deterioration
- Advising on strategy and budget alignment
- Developing and delivering asset management plans
- Overseeing plan implementation and continuous improvement

## **Development Area 4 – Risk-Based Investment Scenarios**

## 10. Finance and Investment Strategy

The East Sussex highway network is one of The Council's most valuable public assets. However, maintaining it is increasingly challenging due to ageing infrastructure, rising costs, and limited funding. This section outlines how The Council applies a structured, risk-based investment approach to maximise long-term value, service continuity, and public benefit—in line with core principles.

### 10.1. Current Capital Investment

The Council receives an annual capital maintenance funding allocation from the Department for Transport (DfT) and, where resources have allowed, this has been supplemented by borrowing from the Council's Capital budget. Table 10.1 shows the annual gross capital maintenance funding since 2022/23.

**Table 10.1 Gross capital maintenance funding since last HIAMS review**

	Actuals			Allocated
	2022/23 £000's	2023/24 £000's	2024/25 £000's	2025/26 £000's
DfT Highways Maintenance Block (Needs)	5,900	5,900	5,900	19,607.5
DfT Highways Maintenance Block (Incentive)	1,475	1,475	1,475	1,392.5
DfT Pothole Fund and other Funding	5,900	8,260	5,900	0
DfT Additional Highways Maintenance - Resurfacing	0	1,674	1,674	0
<b>Total Highways Maintenance Grants</b>	<b>13,525</b>	<b>17,309</b>	<b>14,949</b>	<b>21,000</b>
ESCC Capital (Borrowing)	16,010	10,968	8,047	0
Approved Spend in Advance	0	0	4,313	-4,313
Additional Spend in Advance	0	0	20	-20
Reserves/other contributions	0	5,600	1,211	0
Total ESCC Funding (not including revenue funding)	16,010	16,568	13,591	-4,333
<b>Total Spend (ESCC and DfT)</b>	<b>29,535</b>	<b>33,877</b>	<b>28,540</b>	<b>16,667</b>

At first glance, the total spend appears substantial; however, under the adopted contract model The Council outsources design and supervision responsibilities to The Contractor. When we take these, and other contractual overheads into account, the budget available to deliver the highway maintenance function across a range of asset types has averaged at £20 million per year.

### 10.2. Incentivised Funding Alignment

From 2025/26, 25% of the Department for Transport's capital maintenance allocation will be conditional on councils demonstrating best practice in asset management.

This Asset Management Strategy shows that The Council is fully aligned with the DfT framework, embedding risk-based decision-making, preventative maintenance, and data-led planning.

By doing so, The Council is positioning itself to secure the highest possible banding and therefore the full incentive funding available. While non-compliance would risk a reduction in resources, The Council's approach provides confidence that it will maximise funding and deliver a safer, more reliable, and more sustainable highway network.

### **10.3. Investment Prioritisation**

Investment is prioritised based on asset criticality, condition, and whole-life cost, with enhanced focus on the Resilient Network (see Section 6.3). This ensures essential routes and high-risk assets are maintained to safe and serviceable standards.

Key investment principles include:

- Risk-led allocation to maximise safety and service continuity.
- Preventative maintenance where it offers better long-term value than reactive works.
- Transparent trade-offs between investment levels and service outcomes.

### **10.4. Prioritising Within Constraints**

Investment modelling undertaken on the Carriageway Asset in February 2025 indicated that maintaining a steady state would require around £23 million per year for that asset type alone. With average capital investment across several asset types at around £20 million per year (see Section 10.1).

The Council therefore applies a prioritised approach to asset management. This means focusing resources on the most critical and heavily used parts of the network, while managing less critical routes and assets at a safe and acceptable standard. By applying this approach, The Council ensures that risks remain low, impacts are limited, and resources are concentrated on the infrastructure that matters most to residents and the wider economy.

This strategy not only makes best use of available resources but also demonstrates to stakeholders that The Council is planning responsibly, transparently, and in line with national best practice. While the funding challenge is clear, our approach ensures that every pound invested delivers the greatest possible benefit and supports a safer, more reliable, and more sustainable network.

This approach:

- Directs funding where failure would have the greatest impact.
- Allows for a lower level of intervention on assets that carry lower risks or usage.
- Maintains transparency with stakeholders about realistic outcomes..

### **10.5. Efficiency and Improvement**

The Council continues to seek efficiencies in planning, delivery, and monitoring through:

- Optimised contracting and procurement
- Innovation in materials and methods
- Collaborative working with suppliers and peer authorities
- Use of digital tools to track performance and inform strategy

A full network valuation (see Section 8) supports informed planning and the commitment to Development Area 5, enhances The Council's ability to model and compare investment scenarios. Together, this strategy ensures that financial decisions are transparent, defensible, and aligned with goals of resilience, sustainability and public value

## **Development Area 5 – Lifecycle Modelling Expansion**

## **11. Lifecycle Modelling**

Lifecycle modelling sits at the heart of The Council's risk-based, whole-life approach to asset management (see Core Principles, Section 2.6). It allows us to look beyond short-term fixes and forecast how assets will perform, cost, and deteriorate over time. By modelling different options, The Council can identify the lowest whole-life-cost intervention that still meets all safety and service requirements, ensuring better value and more reliable outcomes for residents and businesses.

### **11.1. Data and Asset Categorisation**

Effective modelling begins with robust data. All major asset groups (carriageways, structures, drainage, lighting, etc.) are recorded and managed in Confirm. Regular surveys (CVI, SCANNER, SCRIM, bridge inspections, gully cleans, etc.) feed directly into Predictor, and assets are subdivided where necessary (e.g. carriageway surface vs. structure) to enable more detailed and accurate forecasting.

### **11.2. Data Validation**

Accurate modelling depends on high-quality data. The Council applies clear ownership, validation rules, and audit checks to maintain reliability. Confidence scores (A–D) highlight where datasets need improvement, and targeted actions are taken to address weaknesses (see Development Area 1). This ensures that forecasts are grounded in trusted evidence.

### **11.3. Forecasting and Scenario Testing**

With strong data in place, Predictor applies condition and deterioration curves to explore how the network will perform under different circumstances. This enables The Council to:

- Project future condition under current budgets.
- Test alternative funding scenarios (e.g. steady-state, minimum-safety, constrained investment).
- Quantify the trade-offs between cost, risk, and service if maintenance is delayed or preventative work is prioritised.

The outputs of this scenario testing directly inform forward works programmes and provide the evidence needed to develop strong business cases for investment.

### **11.4. Optimal Intervention Timing**

Scenario modelling identifies the “sweet spot” for intervention – the point just before an asset deteriorates into a higher-cost condition band. Intervening at this stage minimises whole life costs, avoids unnecessary disruption for network users, and maximises the return on investment by extending the life of assets. By embedding this principle into decision-making, The Council ensures that limited resources are used as efficiently as possible, supporting a more resilient and sustainable highway network.

A simple analogy is often used to explain this principle: *painting wooden window frames*. If they are repainted regularly, the cost is relatively low, and the frames can last for decades. If maintenance is delayed, the paint peels, water penetrates the wood, and the frames eventually rot - at which point they must be replaced entirely at far greater cost. The same principle applies to highways assets: timely preventative maintenance avoids the expense and disruption of major reconstruction.

## 11.5. Integration and Continuous Improvement

Lifecycle modelling is not a one-off exercise but part of an ongoing improvement cycle. Outputs are embedded in every HIAMP and refreshed annually. New data sources (e.g. AI image recognition, mobile mapping) will be incorporated as they mature, while performance is reviewed each year against model predictions. This continuous feedback loop refines assumptions and improves accuracy over time.

## 12. Climate Change

The Council declared a climate emergency in 2019 and is committed to becoming carbon-neutral by 2050. Two documents guide this work:

- Environment Strategy 2020–2030 – targets a 13 % annual county-wide CO<sub>2</sub> reduction to keep global warming below 1.5 °C.
- Climate Emergency Plan – sets out service-specific actions and adaptation measures, including for highways.

### 12.1. Why it matters for highways

Climate change already affects the network through:

- Flooding / extreme weather – overloads drainage, damages surfacing and embankments.
- Heat and cold swings – accelerate material failure.
- Sea-level rise & coastal erosion – threatens coastal roads and structures.

### 12.2. Our climate-resilient approach

Priority action	What we do
<b>Resilient Network focus</b>	Give critical routes first call on maintenance, renewal and risk-mitigation funds.
<b>Risk-based lifecycle planning</b>	Model climate vulnerabilities and time interventions for best whole-life value.
<b>Low-carbon materials &amp; methods</b>	Specify durable, sustainable products wherever technically and economically viable.
<b>Higher design &amp; maintenance standards</b>	Apply enhanced specs on assets most exposed to extreme weather.
<b>Joined-up planning</b>	Align highway investment with Local Transport Plan 4 goals on decarbonisation, resilience and sustainable travel.

These measures keep today's network safe and serviceable while preparing it for the greater climate pressures ahead.

## 13. Continuous Improvement

The Council runs a rolling cycle of review and improvement. Policies, processes and performance data are checked regularly to spot risks, cut waste and re-target resources.

Innovation drives this effort. We adopt digital asset systems, remote-sensing inspections and modern materials to predict maintenance needs and extend asset life with lower carbon impact.

Partnerships with industry, academia and neighbouring authorities let us share best practice and trial new ideas. A clear performance-management framework - KPIs, benchmarking and

feedback, keeps progress visible, while ongoing staff training maintains the skills to use new tools.

This culture of learning and innovation underpins greater network resilience, better service and stronger value for money

## **14. Conclusion**

This strategy establishes a comprehensive and forward-thinking framework for managing East Sussex's highway infrastructure over the next five years. It balances the need for fiscal responsibility with the growing demand for resilience, sustainability, and service reliability in a changing climate and financial landscape.

By embedding risk-based decision-making, whole-life asset planning, and robust data systems, the strategy ensures that limited resources are directed where they deliver the greatest value and safeguard critical services. It also positions The Council to respond effectively to emerging challenges, from extreme weather to evolving public expectations, while maintaining alignment with national standards and local priorities.

Looking ahead, the focus will be on delivering this strategy through targeted asset management plans, realising the benefits of new digital tools like Confirm and Predictor, and acting on key development areas such as data confidence, lifecycle modelling, and climate adaptation. Regular performance monitoring, stakeholder engagement, and strategic reviews will ensure the approach remains agile, evidence-led and outcome-focused.

Through this work, Council will continue to maintain a safe, resilient and future-ready highway network that supports the well-being of its communities and the prosperity of the region.

## **Appendix A. Development Areas**

To ensure continued alignment with national guidance, organisational goals, and emerging risks, several strategic development areas have been identified to guide future enhancements to The Council's asset management approach. These areas reflect themes arising from internal reviews, audit findings, stakeholder feedback, and evolving best practice.

<b>#</b>	<b>Development Area</b>	<b>Purpose &amp; Key Actions</b>	<b>Lead / Timescale</b>	<b>Link to Core Principles</b>
<b>1</b>	<b>Data Confidence Improvement Plan</b>	Raise inventory & condition confidence to <b>B or better</b> for drainage, lighting, soft estate and other C/D-rated assets. Targeted surveys, data cleanse, QA checks.	Asset Strategist 2025-27	Data-led planning; Risk-based decisions
<b>2</b>	<b>Digital Innovation &amp; Integration</b>	Leverage Confirm-mobile, AI inspections, remote sensing; develop dashboards for public and Members.	Digital & Innovation Lead 2025-28	Continuous improvement; Stakeholder engagement
<b>3</b>	<b>Asset Revaluation &amp; Depreciation Update</b>	Complete CIPFA-aligned revaluation; update GRC, DRC and depreciation to 2028 prices for budget bids and statutory reporting.	Commercial Manager & Asset Strategist 2027-28	Financial sustainability; Transparency
<b>4</b>	<b>Risk-Based Investment Scenarios</b>	Define and publish "steady-state", "minimum-safety" and "managed-decline" funding models, showing service/condition impacts.	Commercial Manager & Asset Strategist 2025-26	Transparency; Resilience; Value for money
<b>5</b>	<b>Lifecycle Modelling Expansion</b>	Extend Predictor to <b>all</b> asset groups; embed results in HIAMP forward works; run annual scenario tests.	Commercial Manager & Asset Strategist 2025-26	Whole-life planning; Financial sustainability

## **Appendix B. Glossary and Definitions**

**Asset** - A physical component of the highway network that has value, requires maintenance, and delivers service, such as roads, bridges, lighting, signs, and drainage systems.

**Asset Management** - A strategic, systematic process for managing infrastructure assets to maximise value, minimise risk, and deliver agreed levels of service in the most cost-effective manner

**Asset Management Framework**- The integrated set of processes, tools, and governance arrangements used by The Council to plan, deliver, monitor and improve highway asset management activities.

**Confirm** - The Council's centralised Asset Management System (AMS), used to store, manage, and integrate asset data, inspections, works orders and customer records.

**Condition Data** - Information gathered through inspections and surveys that reflects the physical state of highway assets, used to assess performance and inform investment.

**Depreciation** - The reduction in an asset's value over time due to use, ageing and deterioration.

**Depreciated Replacement Cost (DRC)** - The estimated value of replacing an asset in its current condition, allowing for depreciation.

**Forward Works Programme** - A rolling plan of prioritised maintenance and improvement works based on condition data, risk and available funding.

**Geospatial Data** - Data that is associated with a specific location, typically used to map and manage asset locations via Geographic Information Systems (GIS).

**Gross Replacement Cost (GRC)** - The estimated cost of replacing an asset or network with a new, equivalent asset built to modern standards.

**Highway Infrastructure Asset Management Plan (HIAMP)** - A detailed operational plan for managing a specific asset group (e.g. carriageways, drainage), setting out condition, risks, performance targets and investment needs.

**Lifecycle Modelling** - A technique used to forecast how an asset's condition will change over time and to determine the most cost-effective intervention points.



**NEC4 Contract** - A form of collaborative contract used for managing construction and infrastructure services, based on transparency, flexibility, and shared risk.

**Predictor** - A specialist software tool used to model asset deterioration, evaluate investment strategies, and optimise lifecycle planning across asset groups.

**Resilient Network** - A prioritised subset of the highway network identified for enhanced maintenance and risk mitigation to ensure continuity of access during adverse events.

**Risk-Based Approach** - A method of prioritising inspections, maintenance and investment based on the likelihood and impact of asset failure or underperformance.

**Service Level** - The defined standard or performance outcome that an asset or service is expected to achieve.

**Stakeholders** - Individuals or groups with an interest in the highway network, including residents, elected members, businesses, emergency services, and delivery partners.

**Whole-Life Costing** - An approach that considers all costs associated with an asset over its entire lifespan, from construction to decommissioning.

### **Appendix C. Data Confidence Per Asset Type (2025)**

<b>Asset Type</b>	<b>Quantity</b>	<b>Inventory Confidence</b>	<b>Condition Confidence</b>	<b>Comments</b>
<b>Carriageways</b>	3,120 km	B	A	Annual condition surveys provide robust data. Some work is underway to fully align inventory with highway extents.
<b>Footways &amp; Cycleways</b>	2,482 km	B	A	Inspections follow a hierarchy-based regime. Cycleways contiguous with carriageways inspected together; separate cycle tracks inspected quarterly.
<b>Structures</b>	513 bridges, 246 retaining walls, 2 tunnels	A	B	Inspected biennially; principal inspections every six years for major structures.
<b>Drainage</b>	93,701 gullies, 7,150 catchpits, 505 km ditches	A (gullies), C (others)	A (gullies), C (others)	Risk-based inspection intervals for gullies and catchpits. Data on subsurface assets is less complete and targeted for improvement.
<b>Street Lighting</b>	37,500 columns, 1,000 other items, 3,000 parish/district-owned units	A	C	Monthly illumination checks and six-monthly electrical testing. Condition data coverage is a known gap and is being prioritised for improvement.
<b>Traffic Signals</b>	66 junctions, 140 crossings	A	A	Annual inspections ensure high confidence in condition and performance.
<b>Signs, Markings &amp; Furniture</b>	43,695 signs, 2,500 km road markings, 909 grit bins, 40,000 bollards, 24.7 km guardrail, 28.5 km barriers	A	B	Barriers inspected every two years; ongoing data consolidation efforts for subcategories.
<b>Soft Estate</b>	4,468 km verge, 75 km wildlife verge, 55,000 trees (est.), 36 km hedges	C	C	Risk-based inspections cover safety, biodiversity, and accessibility. Inventory and condition data improvements are priorities for this asset group.

#### **Appendix D. Network Hierarchy (2025)**

Category	Type of Road	Description
1 – Resilient Network	Resilient Network	The category of roads to which priority is given for maintenance and other measures to maintain economic activity and access key services.
2 – Strategic Route	Trunk and some Principal 'A' class roads between Primary Destinations	Routes for fast-moving long-distance traffic with little frontage access or pedestrian traffic. Speed limits are usually more than 40 mph and there are few junctions. Pedestrian crossings are either segregated or controlled and parked vehicles are generally prohibited.
3a – Main Distributor	Major Urban Network and Inter-Primary Links. Short – medium distance traffic	Routes between Strategic Routes and linking urban centres to the strategic network with limited frontage access. In urban areas speed limits are usually 40 mph or less, parking is restricted at peak times and there are positive measures for pedestrian safety.
3b – Secondary Distributor	B and C class roads and some unclassified urban routes carrying bus, HGV and local traffic with frontage access and frequent junctions.	In residential and other built-up areas these roads have 20 or 30 mph speed limits and very high levels of pedestrian activity with some crossing facilities including zebra crossings. On-street parking is generally unrestricted except for safety reasons. In rural areas these roads link the larger villages, bus routes and HGV generators to the Strategic and Main Distributor Network.
4a – Link Road	Roads linking between the Main and Secondary Distributor Network with frontage access and frequent junctions.	In urban areas these are residential or industrial interconnecting roads with 20 or 30 mph speed limits, random pedestrian movements and uncontrolled parking. In rural areas these roads link the smaller villages to the distributor roads. They are of varying width and not always capable of carrying two-way traffic.
4b – Local Access Road	Roads serving limited numbers of properties carrying only access traffic	In rural areas these roads serve small settlements and provide access to individual properties and land. They are often only single lane width and unsuitable for HGVs. In urban areas they are often residential loop roads or cul-de-sacs.
5 – Minor Road	Little used roads serving very limited numbers of properties.	Locally defined roads.