



Highway Infrastructure Asset Management Strategy

September 2018



Purpose of this strategy:

As a Highway Authority, we have a duty of care to maintain the safety and accessibility of highway infrastructure that is kept at public expense. As stewards and custodians of the highway infrastructure assets, in accordance with the Highways Act 1980, we must demonstrate that we have provided adequate provision for their upkeep and safety as can be reasonably expected. We shall maintain the highway infrastructure assets with consideration to whole life costs, associated risks and alignment with our corporate objectives. This strategy sets out how highway asset owners will deliver a service level against the Council's key priorities

Control

Version control	AMF-002 v1.0
Author	Kully Boden – Highway Asset Team Leader
Key stakeholders / contributors	<ul style="list-style-type: none"> • Highway Asset Owners • XAIS Asset Management Ltd • Midland Service Improvement Group • Disability Hub • Legal Services (Risk and Insurance) • Communities Scrutiny Review Board • Cabinet Member for Neighbourhoods and Streetpride
Lead Directorate	Communities and Place
Implementation due date	September 2018
Approving body	Council Cabinet
Approval date	12 September 2018
Accountable Service Director	Richard Antcliff, Service Director for Public Protection and Streetpride

Supporting information

Policy or strategy type (<i>statutory/non statutory and/or internal or external</i>)	Statutory and external
Equality impact assessment date completed	Wednesday 22 August 2018
Safeguarding implications / assessment date completed	N/A
Policy and Improvement review completed (Y/N)	N/A
Revised / updated date	
Next Review date	September 2019
Reviewing officer	Kully Boden Highway Asset Team Leader Kully.boden@derby.gov.uk 01332 642013

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Foreword

The highway infrastructure assets in Derby are the most valuable publicly owned asset, with a replacement value of approximately £2.8 billion with the carriageways and footways alone valued at £1.2 billion. They are used every day by residents, businesses and visitors to the city and provide a vital contribution towards the economic, social and environmental well-being of Derby.

This strategy aligns with the Council's vision for Derby and describes how the effective management of highway assets will contribute to achieving our objectives.

By highway infrastructure assets, we mean any asset owned by Derby City Council within the highway boundary, including carriageways, footways and cycleways, structures, drainage, street lighting, traffic signals and all street furniture.

The strategy will be reviewed on an annual basis in line with the Well Managed Highway Infrastructure Code of Practice: October 2016' and any emerging guidance. It will be a formal review taking account of feedback from elected members, public, stakeholders and our own workforce.

We will continually build on our understanding of the highway network. This strategy will allow us to make more informed decisions and ensure that the standard of highway assets is maintained to the best of our ability with the available resources.

The Highway Infrastructure Asset Management Framework set out the principles, concepts and approach we have adopted to deliver effective highway infrastructure asset management. This suite of documents will be regularly reviewed and developed, as our understanding of the network and asset groups matures and as national guidance and legislation requires.

The Stakeholder Communication Plan details how we will facilitate communication and key messages to our customers on our approach to highway infrastructure asset management.

This strategy should be read alongside the Highway Infrastructure Asset Management Policy, Highway Infrastructure Asset Management Framework and the Stakeholder Communication Plan. All documents have been published on the Council's website.

1. Introduction

Highway asset management is all about the whole life management of assets.

It is a range of logical and coordinated activities the authority wishes to use to maximise the value of highway assets over their lifespan. We will monitor closely their performance, the risks associated with those assets and the costs required to maintain them throughout their lifespan to a desired service level. Informed decisions are then made on investment, which is focussed on long term planned activities, and prevent the need for costly and reactive short-term repairs.

This approach provides the best value for money and provides a highway environment that is safe, secure and accessible for all our customers.

The strategy takes into consideration the requirements of the Department for Transport Incentive Fund, to have a document that provides a clear 'line of sight' for highway asset owners and has the full support and commitment of our senior decision makers and Cabinet.

The strategy has also been developed with due regard to the Well Managed Highway Infrastructure Code of Practice: October 2016 which should be implemented by local authorities by October 2018. It promotes an integrated asset management approach to highway infrastructure and provides a case to support funding opportunities, better communication with stakeholders and a greater understanding of the contribution the highway network makes to economic growth and local communities.

2. Links to Plans

The Highway Infrastructure Asset Management Policy is a stand-alone document and sets out our commitment to highway infrastructure asset management. This strategy describes how we will deliver it. Both documents form part of our Highway Infrastructure Asset Management Framework, which includes the policies, plans and processes required to implement, deliver and monitor highway asset management activities.

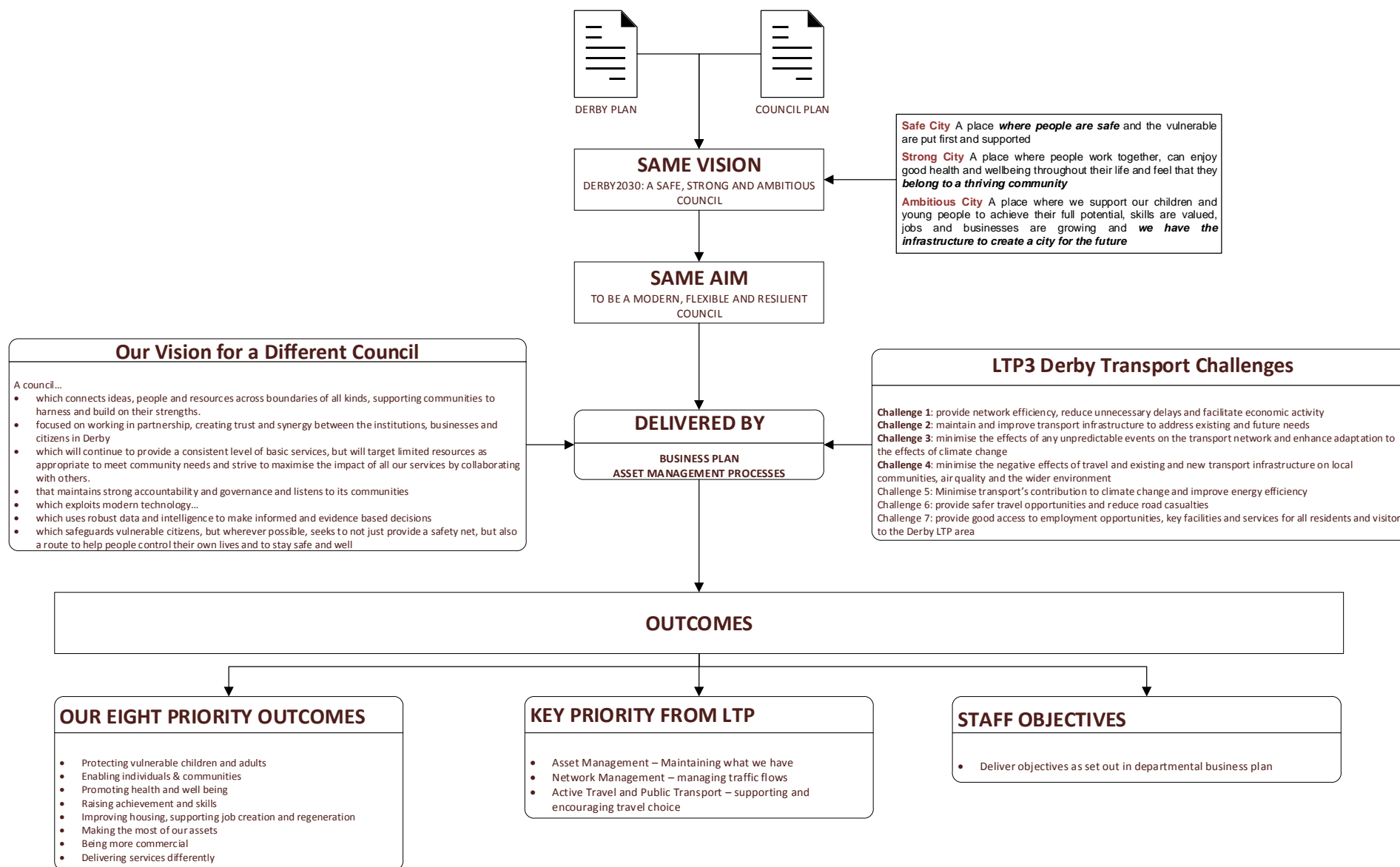
In support of the Derby City Council Plan 2016-2019, The Derby Plan: Vision for 2030 and the Local Transport Plan 3 - 2011-2026, this Council recognises that an asset management approach to the maintenance of the highways network will aid in the achievement of the Council's vision.

The **Council Plan** is a document that sets out what key improvements we would like to make and the types of actions that we will take to make them.

The **Derby Plan** has been based on what we know about the city's needs, through statistics and trends, and on the ambitions, people told us they wanted for themselves, their neighbourhoods and their city.

Our Council Plan underpins the Derby Plan by sharing the same big ambitions for our city.

The following process/relationship shows how this Highway Asset Management Strategy relates to other Derby City Council plans and policy documents. Aligning our approach to these help us to plan effectively and allocate our resources wisely.



3. Highway Assets

Table 3.1 Major highways assets managed by the authority

Asset	Quantity	Data confidence	Comments
Carriageways	765.45km	High (condition) Medium (inventory)	Carriageway length only. Widths required for accurate asset valuations and modelling costs to determine future maintenance need
Footways & cycleways	1,195km	High (condition) Medium - High (inventory)	Widths required for accurate asset valuations, although average width tend to be similar on this asset
Structures, (bridge structures, gantries, retaining walls etc...)	346	Medium – High (condition) Medium - Low (inventory)	Gaps still in bridge component inventory information and limited info on retaining walls. This information required for accurate lifecycle planning
Drainage & Flood Defence (Culverts, highway drainage, headwalls, etc...)	<ul style="list-style-type: none"> • 40,000 individual drainage assets including: 37,000 manholes / gullies / headwalls • 44km of culverted watercourse • 81km of highway drainage • 90km of open watercourse 	High (inventory on gullies and culverts) Low (inventory on drainage runs, pipes etc) High (condition on gullies) Medium (condition on culverts) Low (condition on drainage runs, pipes etc)	Inventory is currently developed on a needs basis
Traffic Signals	264	High (condition) High (inventory)	Needs to develop scheme prioritisation
Street lighting	32,108	High (condition) High (inventory)	PFI project managed by contractor
Street furniture (road signs, safety fences pedestrian guard rail, grit	Unknown	High (inventory and condition on safety fences	Road sign inventory first collected during summer 2018 as part of DfT

bins,cycle stands benches		and road signs)	successful bid.
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The Lifecycle Planning document, AMF-014, as part of the Asset Management Framework, sets out how we will manage each of these asset groups with the budgets available and the effects this will have on levels of service.

4. Whole of Government Accounts

Whole of Government Accounts (WGA) are a major step forward in transparency and accountability, as it supports the government's agenda to make more public data available. WGA enables the direct comparison of asset financial data across the public sector bodies and produce trend data that will help to inform future analysis and decision making.

Whilst the highway infrastructure assets currently do not form part of the audited process for WGA, we continue to calculate the value of the infrastructure asset in line with best practice. Table 4.1 shows that the highway infrastructure asset is currently valued at almost £2.8 billion, with a depreciated replacement cost of £235 million. Our strategy is to maintain or decrease the depreciated replacement cost through effective maintenance regimes.

The Asset Valuation Policy document, AMF-026, as part of the Asset Management Framework, sets out how we calculate our valuation with the inventory and condition information available and to substantiate the need for investment in the network.

Table 4.1 Gross Replacement cost by asset as of Aug 2018 assessment

Asset	Gross Replacement Cost £ (,000)	Depreciated Replacement Cost £ (,000)
Carriageways	£1,038,990	£934,401
Footways & cycleways	£192,952	£184,997
Structures	£370,029	£278,084
Street lighting	£45,014	£30,997
Traffic Signals	£17,934	£11,056
Street Furniture	£14,515	£4,898
Land	£1,156,310	-
TOTAL	£2,835,744	£1,444,433

5. Highway Asset Hierarchy

In response to the Well Managed Highway Infrastructure Code of Practice: October 2016, each street on the highway network has been assigned to a hierarchy level that reflects the importance of the road to the City's economy and the communities that they serve. Highway asset infrastructure failure on the higher level roads has a greater impact and needs to be effectively prioritised in terms of response time and the type of repair. Table 5.1 outlines the hierarchies that have been adopted. They take into account the current and expected use, resilience and social factors. The hierarchies will be reviewed as a formal exercise each year.

Table 5.1 Maintenance Hierarchy as of 2018 assessment

Maintenance Hierarchy	Type of Road	Description
M1	De-trunked Roads and some Principal 'A' Roads	Roads between places of traffic importance across the UK, with the aim of providing easily identifiable routes to access the whole of the country. These roads will be included in the resilient highway network defined for gritting.
M2	Mainly A & B Roads with selected C Roads displaying similar characteristics	Routes linking to M1 Roads that provide - access to Urban Areas linking industrial/ retail areas and main centres of employment, HGV generators, strategic buildings. These roads will be included in the resilient highway network defined for gritting.
M3	Mainly C Roads with remaining A & B Roads and some Unclassified Roads which display similar characteristics	Remaining A & B Road Routes connecting to M2 or M1 roads that aren't M1 or M2 but are on the council's published gritting route.
M4		Remaining C Road Routes connecting to M2 or M1 roads that aren't M1 or M2 but are on the council's published gritting route.
M5	Mainly Unclassified Roads with some C Roads with similar characteristics	Urban roads which are on the published Gritting Route and published Bus route, residential connecting roads and which typically connect to the M3/M4 roads. Including Roads which are inspected Monthly or less
M6	Unclassified Roads	Urban through which are published Bus Routes and local service roads with retail shop frontages and parking areas, school frontage roads and similar higher risk usage areas and highway maintainable carparks.
M7	Unclassified Roads	Urban roads without footways, i.e. through roads and cul-de-sac roads, which provide a shared road space.
M8	Unclassified Roads and remaining C Roads	Urban roads which are cul-de-sac roads with footways
M9	Remaining Paved Unclassified Roads	Urban road back roads serving residential properties
M10		Gated roads\restricted access

Maintenance Hierarchy	Type of Road	Description
M11	Remaining Un-Paved Unclassified Roads "Green Lanes"	Unpaved roads, gravel tracks etc.

The Highway Infrastructure Maintenance Hierarchy document, AMF-006, as part of the Asset Management Framework, sets out the process used to inform how we created and developed our hierarchies.

6. Governance

Responsibility for the planning and delivery of highway asset repairs and improvements within Derby City Council sits with the Communities and Place Directorate. The Council has set up a Head of Highway Assets whose role, in part, is to promote, deliver and embed asset management practices across the asset groups.

7. Maintenance Delivery

The delivery of maintaining our highway infrastructure is based on the following:

i) Asset Performance

We will monitor the performance of all highway assets to ensure timely repairs are carried out when necessary and to monitor the performance of the materials used. Asset performance will be monitored through our asset management systems and reported on an annual basis to ensure we are meeting any Key Performance Indicators (KPI's). Document AMF-012 refers.

ii) Risk Management

The Well Managed Highway Infrastructure Code of Practice has been written to recommend councils adopt a risk-based approach to maintaining the infrastructure asset. The council will be adopting this risk-based approach to maintaining the assets. Documents AMF-009,10,11a&b refer.

iii) Lifecycle planning.

We will produce lifecycle plans for all of our major assets. These will document reasons for selecting work to address performance gaps. For the infrastructure asset, a long-term programme/strategy is required, which is linked to our level of service priorities and targets. Document AMF-014 refers.

iv) Communication.

Successful management of the infrastructure asset is determined by the attitudes of key stakeholders, therefore communication with our stakeholders and the public is essential. We will aim to communicate all key decisions and processes to all our stakeholders. We will ensure the communication is purposeful, positive, proactive and enables feedback. This includes providing direction to team members and suppliers and influencing the attitude or expectations of all users of the network.

8. Competency and Benchmarking

Those involved in managing, developing and implementing asset management activities must be competent in their duties. A programme of Continuing Professional Development and training for all staff at all levels involved in any activity to manage the asset will be provided. This will include:

- Professional qualifications
- Membership of accredited bodies
- Work shadowing and mentoring
- Internal courses and briefings, including risk assessment
- Attendance at workshops for the development of the Code of Practice
- Attendance at mock trials – to recognise the possibility of a legal challenge to decisions made.
- Presentations at key events on Derby's progress
- Editorials on key challenges and how they were overcome

Appropriate training and knowledge sharing with other authorities and national organisations will be maintained to ensure continual good practices are utilised.

Collaboration and benchmarking is already in place with our membership in the Midland Service Improvement Group and Midlands Highway Alliance. Additional work with comparable authorities nationally, with a similar highway network size and urban composition allows us to benchmark performance at a broader level and identify opportunities for improvement.

9. Use of Innovation

Central government are encouraging local authorities to embrace the use of innovation and the better use of data to improve the planning and maintenance of our road network. We have and will continue to explore, trial and implement potential tools which will assist in informing data gaps, defect identification and cutting edge repair systems.