

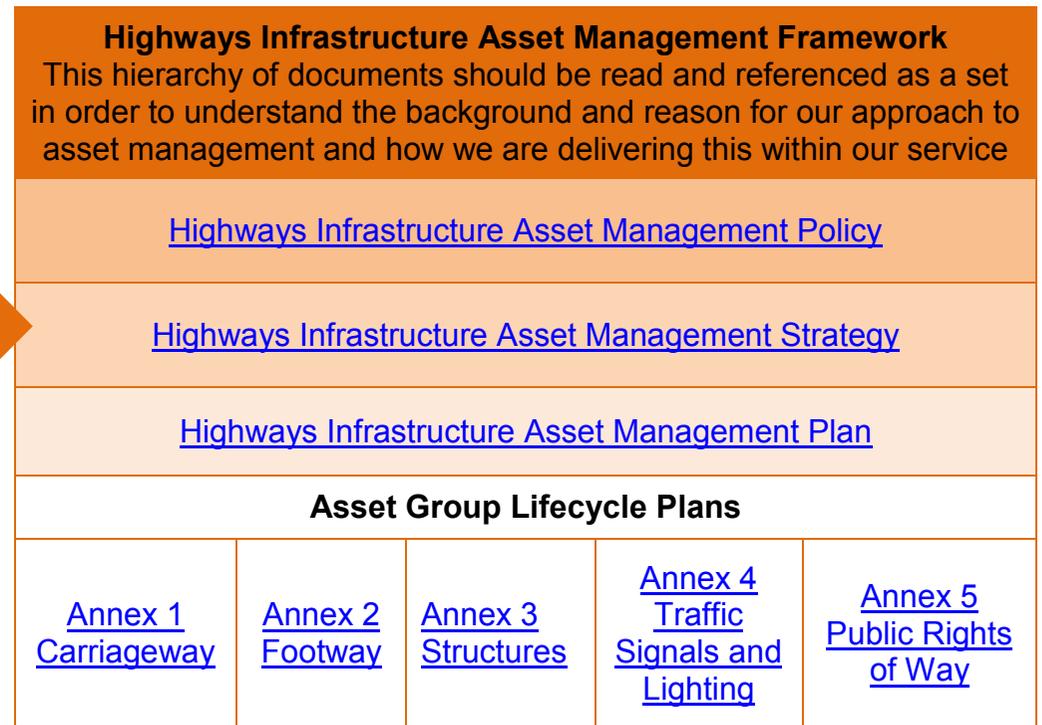
Highway Infrastructure Asset Management Strategy

This strategy has been developed to explain the framework we will use to manage the highway network as described in our Highway Infrastructure Asset Management Policy. With a gross value in excess of £12 billion, the highway network maintained and managed by Devon County Council is our County's most valuable and important public asset.

The management of such a valuable and vital asset needs to be undertaken in a systematic manner, which is set out in this strategy.

Asset management promotes a business-like way to highway maintenance. It makes better use of limited resources and delivers efficient and effective highway maintenance. We will take a long term approach to the maintenance of all highway infrastructure assets which considers the cost and anticipated performance of the maintenance work we do.

Devon has been developing and implementing asset management principles for the management of the highway infrastructure over a number of years. This strategy is developed from that experience but also draws on current industry best practice.



Developing our asset strategy

We have based our policy on national guidance and best practice developed by the [Highways Maintenance Efficiency Programme](#) and our service strategy to drive efficiency in delivery of our services, manage demand and mobilise communities.

Consultation on this approach: In creating this policy we have taken account of the feedback from citizens contained in:

- the National Highways and Transportation public perception survey
- consultation on our Local Transport Plan
- feedback within the consultation on the Better Together Strategic Plan
- the County Council's tough choices consultation

The Council's Place Scrutiny has been consulted and input into the development of the documents. The Cabinet Member for Highway Management and Flood Prevention has been consulted and supports the approach.

During the life of this policy we will listen to citizens to check how well the approach is working and the impact it is having on individuals, communities and businesses. Full details on how we will do this are set out in our [Communication Strategy](#) document.

The purpose of this Strategy is to provide a high level document which links the Highways Infrastructure Asset Management Plan, a detailed document with many individual plans and policies embedded in it, with the Council's vision and aims. The following diagram shows how Highways Infrastructure Asset Management Strategy is linked to the Council's Vision, our Highways business plan as well as highways legislation and national and local guidance.

The maintenance backlog: Our asset modelling work suggests that across all highway assets (carriageway, footways, street lighting, bridges, drainage system, etc.....) we should be investing over £55m per year to keep up with annual deterioration and maintain the assets in their current condition.

We also estimate that to fix the most deteriorated roads requiring maintenance now it would cost over £167m and that we should be investing approximately £38m per year just to maintain them in a steady state. Our capital grant allocation for roads from government was £29m for the 2016/17 year.

Every year that we are unable to spend what we need means that highway network condition will deteriorate. This will be particularly noticeable on our minor roads.

It is therefore essential that we target the money we do have to deliver the most effective maintenance of each asset in the longer-term.



Council Vision



Legislation

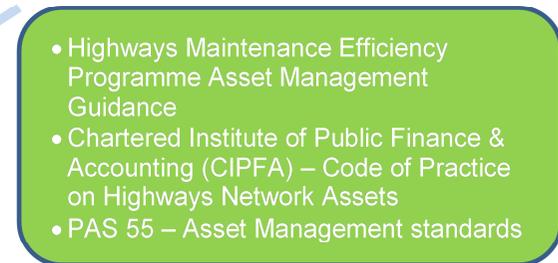


Highways and Traffic Management Business Plan

National codes of practice



Asset Management Guidance



Local guidance



Our Highway Infrastructure Asset Management Framework

This framework aligns with our 2015-21 business plan model and focusses on the way we work together, with the aim of delivering the best we can with the resources we have.

Highways and Traffic Management Business Model 2015-21

This strategy, and supporting plan, highlight that whilst we are one large multi-disciplined and diverse team, we are increasingly working as one integrated team to deliver our strategic aims.

Our business plan has a strong and consistent message on how we will approach delivery of sustainable and resilient services for the next six years in support of [Better Together, Devon's Strategic Plan](#).



“Managing our highways is now a **critical challenge** to local councils, who have to manage an ageing network with high public expectations for **safe, reliable** and comfortable travel. At the same time, **resources are reducing**, with less funding available, increased pressure for other local government services and skills shortages.” (*Highways – Maintaining a Vital Asset, Highways Maintenance Efficiency Programme*)

Our approach to highway infrastructure asset management is aligned to our three clear business plan objectives to:



Drive efficient delivery of the service



Mobilise community support



Manage demand for highway services.

Our three business plan guiding principles which underpin how we think and what we do are also reflected in our approach to highway infrastructure asset management:



Intelligent use of information



Innovative delivery of services



Strong business focus

Our thinking will challenge the current ways of working and influence how we design and adapt our systems and processes to deliver our service through to 2021.

We will take account of:

- Devon County Council's objectives and vision for Devon
- The needs and aspirations of people using the highway network
- The maintenance needs of the different assets that make up the highway network
- The financial resources we can access now and in future

We will balance these factors against the:

- risks of failure of the asset, such as severe deterioration due to lack of investment and the destructive potential of severe weather
- future costs and availability of financial resources to invest in maintenance of the highway assets.

Benefits of this approach: This approach will enable us to:

- Have a clear understanding of the extent and condition of the highway infrastructure and assets
- Have a clear method which links our goals, aspirations and objectives with the defined level of service
- An improved ability to:
 - predict the levels of funding required to deliver the desired levels of service
 - to understand the impact of funding constraints and reductions and target the money we have to best effect
 - understand risks to the effective maintenance to the highway asset and how to try to reduce these risks
 - create programmes of maintenance further into the future to improve planning, reduce impact on citizens and achieve efficiencies when delivering the work
- Explain clearly to citizens why we do the work we do. For instance, surface dressing is a highly effective and economical way to extend the life of a section of road. However, it needs to be done while the road is still in a reasonably good condition. Often people see this work being done and do not understand why we are ‘fixing a good road’ when there is a ‘worse road’ just around the corner.

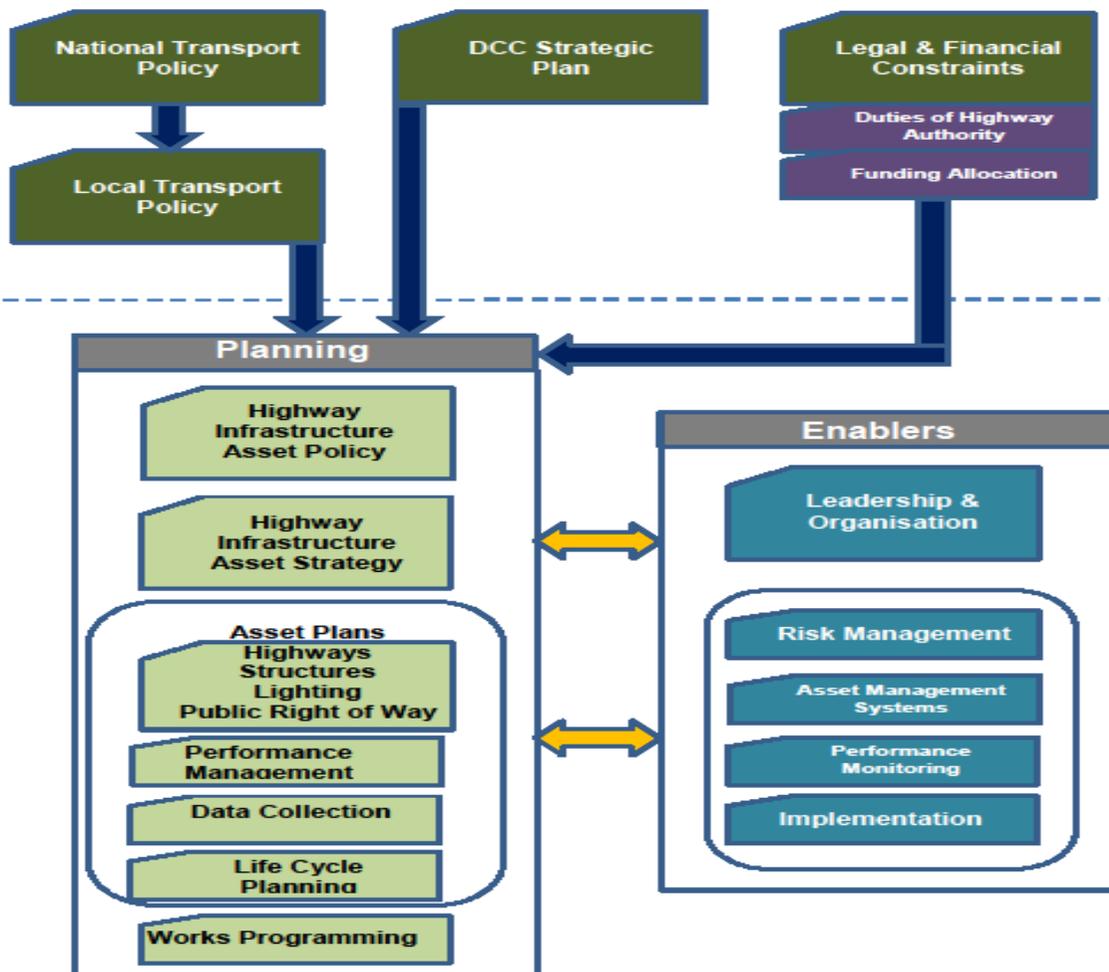
The effective management of these diverse and complex issues can only be adequately addressed within a strategic framework that balances the demands and aspirations with the reality of the current financial situation.

The responsibility for the delivery of the Highway Asset Management framework sits with the Asset Management Group within the Highway and Traffic Management Service. The aim of this group is to enable the successful adoption and implementation of this strategy so that our service is delivered effectively and efficiently and the highway assets are maintained and managed to support the current and future needs of Devon’s citizens.

The Highway Asset Management Framework diagram shows the core elements of our approach which are explained in the next section.

DCC Highway Asset Management Framework

Context



Our core asset management planning tools

A robust asset management framework is delivered through a core set of planning tools.



Inventory and Data Management

Intelligent use of information requires us to develop and maintain our highway asset inventory, so that we know what assets we have, where they are and what condition they are in. This is important in order to have an overall view of the extent and condition of the highway network and enable a consistent management approach to be applied.

Our highway asset inventory is well developed with major asset components recorded in an integrated software system. Where there are gaps in the inventory, most notably drainage infrastructure, work is progressing to address this.

Currently these inventory systems include the following asset groups:

- Highways and highway drainage systems
- Structures
- Street lighting, Signals and Traffic Management Systems
- Public Rights of Way.

Our comprehensive programme of inspections and surveys of the highway assets, which are informed by national guidance and statutory requirements and tailored to asset groups, provides us with good quality data that enables effective risk management and decision making. These inspection and survey regimes are documented in the relevant asset plans for each asset types.



Levels of Service

By Levels of Service we mean a description of the standard of service that is provided or required. These levels link directly back to our corporate aims and objectives, departmental and service plans and other strategy documents such as [Better Together, Devon's Strategic Plan.](#)

Defining levels of service enables us to meet our objective to manage demand, having considered our current and future capacity to deliver with the resources available.

In addition, levels of service must take note of statutory duties and the management and mitigation of risk both to the service user and the authority.

Levels of service can therefore be described in broad terms, which are then described in more detail to give concise standards and targets. The standards and targets can then be measured and used to inform the decision making processes.

Drawing on our key corporate objectives to promote the wellbeing of the citizens and communities of Devon, and enable people to live their lives well, we have set out our high level aims for levels of service for the highway asset in the Highway Infrastructure Asset Management Policy as follows:

- **Safe** and serviceable for people to use
- **Connected** - enabling access to and from communities for people, goods and services
- **Healthy** - supporting and promoting active and healthy lifestyles
- **Prosperous** - contributing to wider economic growth
- **Resilient** - making effective and efficient use of our local resources promoting sustainable communities
- **Sustainable** - Is maintained appropriately to retain its value and condition and contributes to wider environmental management.

These strategic levels of service are then focussed on specific aspects of the infrastructure as part of operational service plans.



Performance

A strong business focus requires us to monitor and manage performance. By managing performance of the asset management approach we will:

- Provide a systematic approach to measure our progress in the implementation of the asset management strategy
- Set levels of service and performance targets to enable auditing and monitoring of the delivery of the asset management strategy.
- Demonstrate how funding is being used effectively to meet the levels of service and performance targets
- Provide the link between corporate vision, asset management strategy, levels of service and maintenance operations
- Support effective communications with citizens by demonstrating how we are performing against their expectations.
- Demonstrate any shortfalls in funding.

The current and future demand on the service will influence the degree of performance that can be achieved. Factors such as customer service provision, customer perception, asset condition and funding provision will all contribute to this. Demand is likely to change with external influences such as weather and seasonal variations. Future demand will be influenced by population and traffic growth and an increasing older population. The report '*Service Resilience in a Changing Climate – Highway Management Devon County Council*', identifies the impact climate change will have during the next century.



Lifecycle Planning, budget projection and valuation

Lifecycle planning is a technique which enables us to think about an asset in terms of its current and future performance. It links the desired level of service, the current condition, future maintenance needs and future funding. This process aligns with our objective to deliver our services efficiently.

Some assets have a limited lifespan and will eventually need to be replaced. For these assets we can use lifecycle planning to chart the journey from cradle to grave, so that we know when replacement will be necessary and the costs to maintain the asset effectively during its expected lifespan.

Some assets can have a longer lifespan provided they are maintained appropriately. For these we can use lifecycle planning to chart the journey from creation through phases of maintenance, refurbishment and back to an “as new” condition, when the cycle is repeated.

Lifecycle planning enables us to:

- Develop plans to invest resources to deliver an agreed level of service performance
- Predict the impact particular levels of funding will have on the service we can deliver.

Lifecycle planning tools have been developed which enable the development of work programmes which make best use of the available funding in meeting long-term objectives, mitigating the risk of failure by allocating funds to where they will be most beneficial. However, allocating funding in this way moves away from a more traditional “worst first” approach and targets work programmes at those parts of the highway asset which present the greatest risk and where early treatment can achieve the most beneficial whole of life cost.

This lifecycle planning approach enables:

- the delivery of a service which is as effective as possible
- allows a clear and logical allocation of resources to those areas which will contribute most to the overall goals and objectives of the Council
- allows an assessment to be made of the residual risk.

As well as the benefits outlined above, comprehensive lifecycle planning allows resources to be targeted to the preservation of the historic investment that has been made in our infrastructure. This is particularly pressing with the imminent introduction of the Whole of Government Accounts (WGA) as set out in the CIPFA Code for Transport Infrastructure Assets.



Works Programmes

The delivery of works programmes are the outcome from the asset management strategy.

The process to develop a works programme comprises the identification, prioritisation, optimisation, programming and delivery of individual schemes for the various asset types. It should meet the annual budgets that have been developed by the authority, ideally with the support of lifecycle planning process described above.



Risk Management and future

The Asset Management approach can be seen as an exercise in managing risk. The need to manage risk is a catalyst for us to be innovative in the way we deliver our services.

The key aspect of our approach is that by grouping assets by type into a hierarchy and then reflecting their importance in service delivery terms relative to one another it enables us to quantify the risk.

This risk based principle flows through the whole of the Asset Management Framework and is fundamental to deciding the levels of service, the scope, type and frequency of inspections, the allocation of budgets and the development of work programmes.

The Asset Management Group has developed a clear hierarchy for its core asset types. When used with robust lifecycle planning and deterioration models, the asset management approach enables an organisation to:

- respond to challenges as they occur
- make accurate predictions of funding required to sustain levels of service
- to quantify the risk to the organisation in terms of service delivery, third party liability and the loss of value and integrity of the assets.

Asset Management is a way of operating which seeks to incorporate all aspects of management activity into one overarching, inter-related system so that conflicting demands, goals, objectives, delivery targets and statutory obligations can be balanced and residual risk identified.

Our strategy for individual asset groups

As part of the asset management framework, and in accordance with other national guidance, our highway asset has been divided into asset groups. Each group is then broken down into asset components and activities. The asset groups and components are described below.

A key function of the asset management process is to understand the spending needs of each asset group, component and activity against the required levels of performance, aims and objectives. This means understanding funding needs to meet:

- Performance Targets
- Department of Transport objectives
- Delivery Planning.

It is important within this process that we understand and consider:

- the influence of budget decisions on customer satisfaction and delivery of the corporate priorities
- the impact that investing on one asset component may have on the overall performance of other asset components, as well as the whole asset.

Therefore we are developing a Needs Based Budgeting approach.

Our Asset groups and components: Highway infrastructure assets have been divided into groups and components as listed in Table 1.

Table 1: Highway Asset Groups	
Group	Components
Carriageways	Road surfaces
Footways and Cycle ways	Footways surfaces
Structures	Bridges, retaining walls, culverts etc.
Drainage	Piped systems, gullies, grips buddleholes and easements
Safety Fencing	Vehicle restraint systems, guard rails, fences
Highway Lighting	Columns, illuminated signs, etc
Public Rights of Way	Footpaths, bridleways, byways, signs, styles gates etc.
Traffic Management systems	Signals and pedestrian crossings
Street Furniture	Signs and other street furniture
Land	Highway verge

Evaluation and Review

We recognise that we are on an asset management journey and we will aim to continually develop our Strategy and Plan. This strategy will be reviewed annually and minor changes and updates will be made to the framework documents and subsidiary documents on an annual basis to reflect changes in funding and service levels. We will aim to review and update the entire framework on a five year cycle.

An Equalities Impact Assessment has been completed covering the Highways Infrastructure Asset Management framework of documents. The assessment will be updated during the regular reviews of these documents or when changes are made to the documents which impact on equalities issues.

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14th October 2016

If you would like this information in another format please contact: