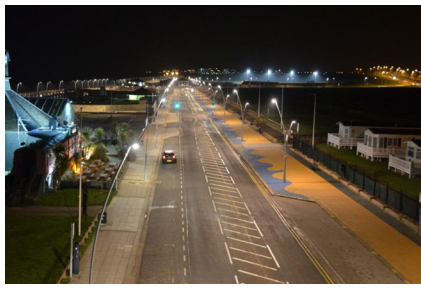
South Tyneside Council

Highway Asset Management Plan

2019-2029



South Tyneside Council

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Document History

Version	Status	Date	Author
1.1	Draft	23/01/2017	Simon Burrows
1.2	Draft	26/01/2017	Dave Carr / Ben Tyrrell
1.3	Draft	20/02/2017	Ben Tyrrell
1.4	Final	11/04/2017	Dave Carr / Ben Tyrrell
1.5	Final	02/12/2019	Dave Carr / Judith Amess

Foreword

The South Tyneside highway and infrastructure network represents the single most valuable asset for which the Council has responsibility. The network comprises almost 600km of roads, approximately 1100km of footways and cycle ways and over 100 highway structures (bridges, subways, retaining walls and culverts).

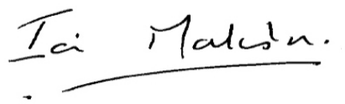
The network is used daily by the majority of businesses, residents and visitors and is fundamental to the economic, social and environmental wellbeing of our borough. It helps to shape the character and quality of the local area and makes an important contribution to wider Council priorities, including regeneration, social inclusion, community safety, education and health.

The Council recognises that it is crucial that the local highway network is well maintained; a view shared by business, residents and other highway users, who see this as a high priority area of work. This Highway Asset Management Plan (HAMP) sets out our approach to maintaining our highway assets in order to provide the best possible service to all road users.

At the heart of the plan there are two fundamental drivers:

- The application of good asset management processes to maintain the network in the most efficient and cost effective way
- A commitment to engage with our residents and other highway users with a view to achieving a level of service that meets their expectations

During the current challenging economic climate it is more important than ever to maintain our roads and other highway assets in the most efficient way and this Highway Asset Management Plan will help us to achieve our vision to provide a transport system and highway network that supports South Tyneside's economy, safely connecting people and co-ordinating businesses within the region.



Councillor Iain Malcolm Leader of the Council

Executive Summary

In 2009 the Council introduced its first 5 year Highway Asset Management Plan (referred to hereafter as the HAMP). The production of a HAMP is considered best practice and is also a government expectation. It identifies the optimal allocation of resources for the management, operation, preservation and enhancement of the highway infrastructure to meet the needs of current and future customers.

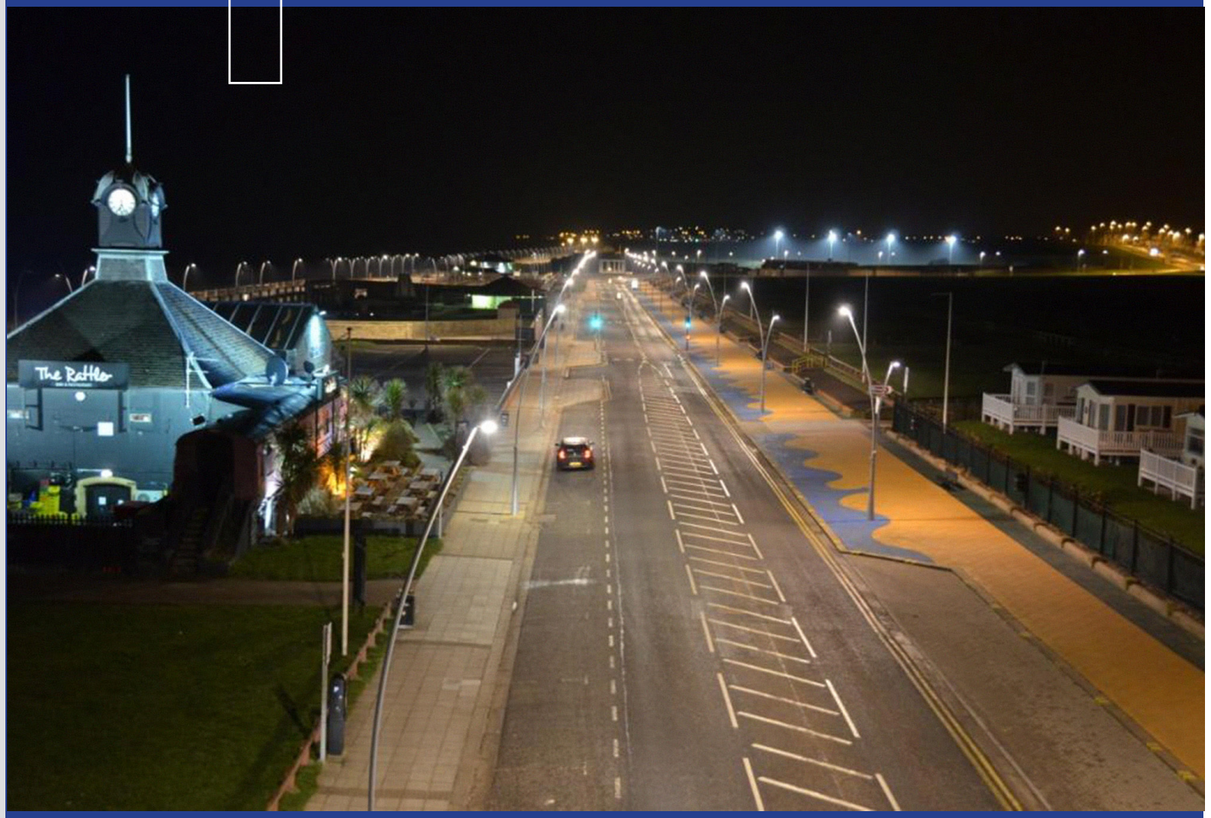
South Tyneside's HAMP forms part of a suite of documents for the Council to manage the highway network in the most efficient way. Good information is the cornerstone of an effective asset management plan. If we know the asset we can maintain it and extend its life.

During the last few years the Council's highway engineering team have continued to gather the data required to build up a detailed picture of the overall highway asset and also developed the ICT systems required to support the HAMP.

This document represents the final stage of the revised HAMP project and it sets out the Council's future policy for highway asset management and the levels of service we are aiming to achieve. This HAMP comprises the following documents:

- HAMP Policy Statement: This contains the overarching aims and objectives of the HAMP. It sets out the Council's general policy in respect to highway asset management.
- HAMP Strategy Statement: This provides an overview of the approach that we will take to implement asset management practice and develop the HAMP.
- HAMP Document: It is a working document that will be used for future reporting and works planning. It will be reviewed and updated annually and used to plan future service development and improvement actions.

1 Introduction



1. Introduction

Asset management has been widely accepted by central and local government as a means to deliver a more efficient and effective approach to management of highway infrastructure assets through longer term planning, ensuring that standards are defined and achievable for available budgets.

A full review has been carried out of the HAMP to incorporate the requirements of the Well- Managed Highway Infrastructure: A Code of Practice 2016. This Code of practice came into effect in October 2018. A requirement of the new code is to develop and publish a Highway Asset Management Framework (HAMF). Many of the sections previously included in the HAMP are now included in the Highway Asset Management Framework meaning this document differs greatly from that published previously.

The aims of the HAMP are to identify the optimal allocation of resources for the management, operation, preservation and enhancement of the highway infrastructure to meet the needs of current and future customers.

The previous HAMP identified a number of aims, objectives and improvement actions that we plan to address during the life time of the plan. Many of the tasks related to the Government's National Ten Year Plan Published in 2000.

In the intervening years the financial landscape has changed considerably, reducing the level of funding available across the public sector. Despite these constraints, progress has been made in regenerating South Tyneside.

This plan contains a revised set of actions more appropriate to current practice. Working with partners and neighbouring authorities we will continue to develop more efficient ways of working and seek to deliver continuous improvement, subject to the financial constraints that affect us all.

The Highway Asset Management Plan builds on the work previously undertaken to refresh and update the document in line with changing financial circumstances, recently published guidance and best practice and to take account of changes made within the Council.

Significant changes that have influenced asset management include:

- Publication and implementation of the revised code of practice "Well Managed Highway Infrastructure (2016) recommendations.
- The introduction of Whole of Government Accounting (WGA).
- Publication of the HMEP "Highway Infrastructure Asset Management Guidance".
- Changes to LTP Maintenance Capital Block allocation from 2015/16 including the "Incentive Formula" which links highway funding to the introduction and implementation of Highway Asset Management Practice through the introduction of an annual self-assessment questionnaire.
- Introduction of the "Challenge Fund" for major/significant highway projects.

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Asset Management Policy Statement

2. Asset Management Policy Statement

South Tyneside's highway assets represent the most valuable asset group for which the Council is responsible, with an estimated value in 2016 close to £1.3 billion. Our roads, footways and cycle tracks are vital arteries that allow people and goods to move within and beyond the region. The highway network supports businesses, provides access to work, schools, hospitals and leisure facilities. An effective highway network is fundamental to achieving the Council's strategic aims and plays a key role in supporting delivery of South Tyneside's Vision for People and Place.

We recognise the benefits of adopting asset management best practice as a cornerstone of maintaining, managing and improving the highways against a backdrop of continued financial constraints. Implementing effective asset management will ensure that we know;

- What assets we have.
- The extent and condition of our assets.
- What highway users expect of our assets in terms of condition, availability and environment.

The highways make a valuable contribution to the Council's corporate aims and outcomes, in particular, helping to support;

- Regeneration
- Better transport
- Better neighbourhoods
- Reducing crime and the fear of crime
- A clean and green environment

By adopting and implementing asset management best practice incorporating Highways Maintenance Efficiency Programme guidance we will ensure that we meet, and exceed the statutory obligations placed upon us by central government and take a long term view to manage the highways effectively and efficiently. We will consider the costs and benefits of the options open to us to develop long term strategies for highways management in order to make the best use of the funds and resources at our disposal.

We will monitor our performance in order to ensure that we deliver the services the Council demands and strive for continuous improvement. We will provide annual reports to demonstrate progress and our contribution to South Tyneside's Core Aims and Outcomes.

3 Asset Lifecycle Plan

3. Asset Lifecycle Plan

Lifecycle Planning is a strategic approach to managing highway assets. It involves looking at an asset from its creation then deciding the most appropriate maintenance treatment at the right time. This maximises the life of the asset and achieves better value for money by undertaking timely preventative maintenance treatments.

South Tyneside Council utilises the Horizons software system and this has the capability of calculating the optimum timings and maintenance treatments for the whole of the carriageway and footway network.

The system also allows engineers to assess the cost and effectiveness of different funding and treatment scenarios. This enables the Council to produce forward maintenance programmes and plan works ahead to get maximum value out of the network.

Figure 1 shows the overview of the Asset management process and Lifecycle Plan.

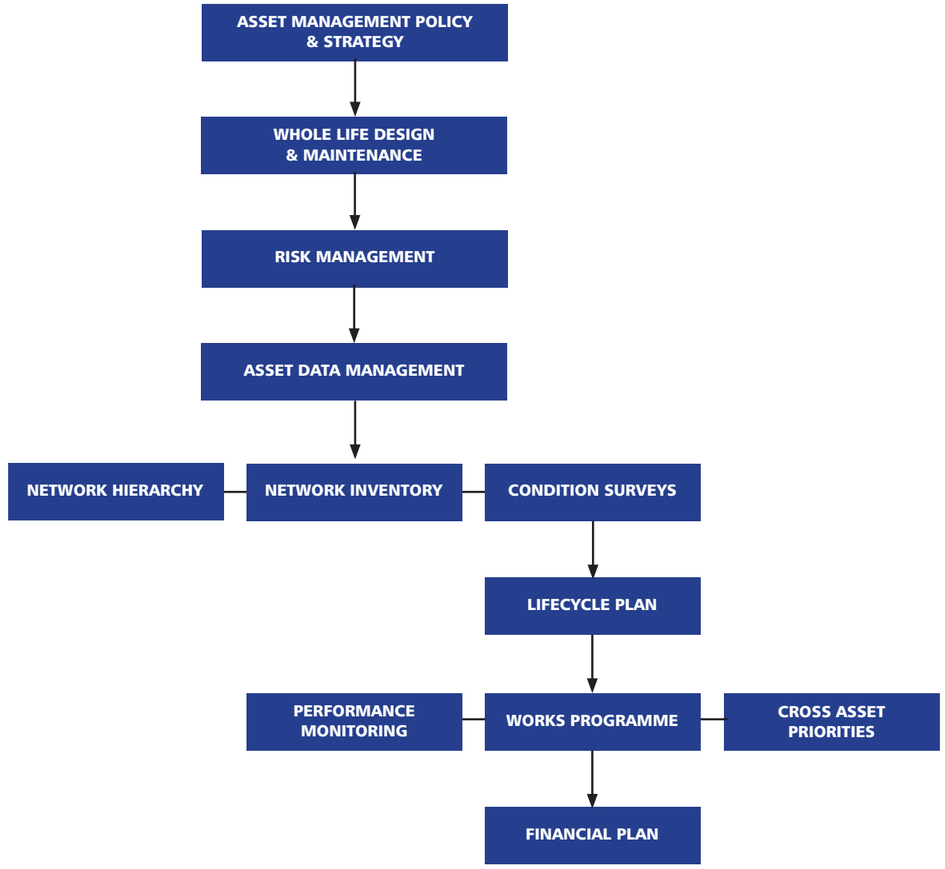

Figure 1: Process Flow Chart

The use of sound judgement based on engineering principles and experience is important to ensure that the parameters used in the development of the investment programme are well founded and are likely to provide realistic results. This has been done by making use of experienced people with a wide range of skills in highway construction and maintenance.

3.1 Investment Strategies

The Lifecycle Planning process will provide us with estimates of the level of funding needed to maintain the highway assets effectively and efficiently. In order to determine the most appropriate Investment Strategy we will consider a range of options that take account of the needs and demands of South Tyneside's highway users, the optimum timing and type of maintenance and renewal for the assets and anticipated levels of funding. This will enable us to recommend a long term strategy that balances sound financial planning with sustainable levels of service to maintain the highways for present and future generations of highway users.

3.2 Highway Infrastructure Assets

Highway assets for which South Tyneside Council has direct responsibility are summarised below in Table 1.

Asset Group	Asset Description
Adopted Carriageway	Carriageways on the adopted highway network, including back lanes
Adopted Footway	All adopted public footways on the highway network
*** Bridges and Other Highway Structures**	All highway structures including road bridges >1.5m, Footbridges, Retaining Walls >1.5m, Engineered Slopes, Culverts > 0.9m
Highway Drainage	All highway drainage items including carriageways and footways gullies, Culverts < 0.9m, Grilles, channels and pipes
PROW	Public Rights of Way for bridleways, public footpaths and cycle routes
Street Furniture	Includes all Vehicle Restraint Barriers, Pedestrian Guard Rails, non-illuminated Bollards, Seats and Grit Bins
Traffic Calming	Chicanes, Speed Humps/Cushions, Vehicle Activated Signs and Tables
Road Markings	Includes all yellow line markings, white longitudinal markings, hatched markings, mini roundabouts, transverse and special markings
Trees and Green Spaces	All Highway Trees, Verges, Hedges, Flower Beds, Shrub Beds and Planters

Table 1: Types of Assets

*Bridges and other highways structures are covered within the Structures Asset Management Plan (SAMP)

Highway assets, for which the Council has responsibility but does not directly control, are summarised in Table 2. These assets are maintained through the PFI contract or under a Service Level Agreement with the Regional Traffic Signals Team.

Asset Group	Asset Description	Maintenance Responsibility	Future Progress
Street Lighting	All Highway Lighting Columns, Illuminated Signs, non- Illuminated Signs and Illuminated Bollards	Full inventory and condition maintained as part of PFI agreement	Continue to maintain and enhance asset data
Traffic Signals	Includes Traffic Signal Installations, Signalised Junctions, Pedestrian Light Controlled Crossings and School Crossing Patrol Flashers	Held and maintained by Newcastle City Council as part of Regional Traffic Signal Service Agreement	Request Inventory from Newcastle City Council

Table 2: Assets maintain through PFI contract

The Life Cycle Plans for carriageways and footways can be found in the appendix 2 and 3 of this document. The Life Cycle Plan for Bridges and other Highway Structures is located within the Structures Asset Management Plan.

4 Works Programming

4. Works Programming

Works programming has been historically undertaken on an annual or reactive basis according to asset type. As we have developed the processes available to support asset management, we have moved towards a longer term rolling works plans

We will review current Works Plans against delivery requirements. From this we will develop a system for compiling forward works programmes for the main asset groups, based on agreed maintenance criteria covering engineering need, condition and other local priority factors. A longer term programme developed using defined criteria gives greater transparency to stakeholders and a better understanding of budget constraints.

Our Works Programmes will provide;

- Proposed programmes for the year ahead.
- Provisional programmes for the following two years. These may be subject to revision to allow for changing conditions or other works (such as works by utility companies).
- Outline programmes for year 4 and beyond to provide an estimate of the level of funding needed to maintain the highway assets.

4.1 Carriageways

The method of identifying carriageway schemes has progressed over the lifetime of the original HAMP. A data driven approach has been adopted with the production of three and five year forward plans. This allows effective forward planning taking into account the future impact on the road network condition by fully utilising condition, inventory and other factors. Defective lengths of carriageway are located and engineering knowledge is applied to produce the works programme annually. Potential works are firstly prioritised within Horizons on a benefit cost ratio, rating the potential impact on the road condition and the benefit that a treatment will provide for years to come, with a projected future date for the next treatment intervention. Reactive works and costs are also used to help reduce future reactive spend and promote planned maintenance over costly reactive repairs that do not enhance the overall road condition and life of the asset.

4.2 Footways

The annual programme for footways is currently produced in a similar manner to carriageways. Highways Inspections are used to identify potential footway schemes, which are then followed by an engineering assessment, in conjunction with Horizons scheme outputs. Footway schemes are then selected depending on condition, local priorities and cost benefit in accordance with asset management best practice. Reactive repair locations are being used to incorporate this information into the works programming model.

The method used to identify schemes, works programming and forward planning is currently being developed in line with current best practice in asset management.

4.3 Drainage

The majority of drainage work is reactive work driven by public requests and site specific issues. Levels of service and performance measures are being developed and a strategy devised. As asset data availability and reliability improves, it will be possible to develop a more structured approach to long term planning and works programming.

4.4 Structures

Based upon current assessment of bridge stock condition we have developed an outline progressive programme for bridges most in need of remedial works. This however will require funding over and above existing LTP allocations.

5 Asset Value

5. Asset Value

As part of the Government's move from historical accounting to financial reporting in line with International Financial Reporting Standards (Whole of government Accounting - WGA), we are required to provide annual returns which summarise the value of the highways assets. These returns set out the Gross Replacement Cost and the Depreciated Replacement Cost for our highways assets.

Details are reported annually and are expected to become subject to full audit in the near future.

WGA provides details of the asset valuation in terms of:

- Gross Replacement Cost (GRC). It is effectively the cost of reconstructing the asset from new. The GRC for our assets at the time of producing this HAMP (2017/18) was £1.446 billion.
- Depreciated Replacement Cost (DRC). This is the value of the asset in its current condition rather than the cost of building it from new DRC takes account of the "usage" of the asset by converting condition data to an estimated age from which the depreciated percentage can be calculated. The DRC for our assets at the time of producing this HAMP (2017/18) was £836 million.
- Accumulated Depreciation. This is the total value of the estimated depreciation across each asset group and is used to calculate DRC as shown below:

  (DRC = GRC - Accumulated Depreciation)

- Annual Depreciation Charge. The Annual Depreciation Charge is the Accumulated Depreciation divided by the expected service life of the asset. In broad terms it provides us with an estimate of the level of investment needed to maintain the assets in their current condition.

Current details of the WGA data for the highway assets are included in Appendix 1. This will be updated annually following the regular WGA submissions.

6

Delivering Asset Management

6. Delivering Asset Management

In order to deliver effective asset management it is imperative that our staff understand its principles and appreciate how their contribution affects successful implementation.

As we develop asset management practice across the service we will provide support and mentoring to those involved in service delivery so that they can understand:

- The Council's strategic vision
- How we support that vision through service delivery
- How we plan to manage the assets to meet the long term aims of the Council
- How implementing asset management practice will benefit highway users of South Tyneside
- The role that performance measures play in measuring progress against our long term targets

Staff will be encouraged to join appropriate professional bodies and to enhance their understanding of highway asset management as part of their personal development.

Through our processes of team meetings, ongoing development and annual staff appraisals we will identify areas where training and support is needed, to ensure that asset management practice becomes a core element of service delivery. This will provide us with right level of expertise and competency to manage our assets effectively.

In areas where competencies or resources are not available internally we will work with our neighbours or commission external support as required.

For more information about South Tyneside Council:

www southtyneside.gov.uk

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