



Highway Infrastructure Asset Management Plan

2015 – 2020

Policy and Strategy

Approved April 2015

Highway Services
Asset Management

www.enfield.gov.uk

Asset management is about making sound financial decisions.

It is about doing the right thing at the right time to maximise the serviceable life of Enfield's highway assets.

It is about making the best use of the money we have for highway maintenance.

Adopting asset management practices can achieve greatest return on investment in highways maintenance.

This document comprises –

A policy, which sets out the commitment by Enfield's senior decision makers to highway infrastructure asset management and how it links to the council's vision and aims.

A strategy, which sets out the key objectives for the continued development and improvement of highway asset management in Enfield, how they will be met, including statutory obligations, stakeholder needs and the overall performance of the highway infrastructure within the context of any constraints, such as funding.

Introduction

Enfield Council is the highway authority with responsibility for the maintenance of the public highway within the borough, which is most of the roads and footways. There are exceptions as some roads and footways are within private estates or parks and are not public highway. The M25 is maintained by the Highways Agency and the A406 North Circular Road and A10 are the responsibility of Transport for London.

The borough's public highway network comprises of approximately 68km of principal roads, 51km of non- principal classified roads and 466km of unclassified roads. The extent of highway assets is, however, far wider than the road network and includes: -

- Associated verges, shrub beds and flower beds;
- 23,500 trees;
- Highway drainage, including settling ponds;
- Over 1,170 km of footways and cycleways;
- Over 52km of footpaths, bridleways and byeways;
- 31,800 streetlights and illuminated signs;
- Over 19,400 unlit road signs and street nameplates
- Other items of street furniture; and
- Over 340 bridges and other structures.

Enfield's road network has an indicative gross replacement value of £1.3billion (not including the land value) making it one of Enfield's most valuable assets. Its importance for economic prosperity and the public's quality of life is well acknowledged.

Asset management is widely accepted by both 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. Such an approach enables more efficient and effective use of resources, while fulfilling legal obligations, delivering stakeholder needs and safeguarding the engineering integrity of the network.

The vast majority of the highway network in Enfield is what is termed the local road network in the national context. Much of this infrastructure has evolved over a long period of time and was not built to the standards that would be expected of a newly constructed highway. It is vital therefore that Enfield's asset management framework meets the specific demands and requirements of the borough's highway infrastructure and network.

Enfield's Highway Infrastructure Asset Management Plan (HIAMP) 2015 to 2020 is in preparation and will set out Enfield's approach to asset management and document the many aspects and processes which contribute to the management of Enfield's highway assets. The policy and strategy will be important documents within the overall plan.

Highway Asset Management Policy

Enfield's highway asset management policy is based on the need to: –

Support Enfield's Vision and Aims.

Support Enfield's transport objectives and other corporate and local strategies.

Meet Enfield's statutory obligations.

Provide a safe highway network.

Provide a serviceable and fit for purpose highway network.

Take account of the needs of all highway users.

Set out clear decision making processes and levels of service.

Utilise the most sustainable methods throughout an asset's lifecycle.

Provide effective prediction of future budget requirements and make value for money decisions.

Predict and undertake timely intervention, using appropriate maintenance methods, maximising service life for optimum whole life costs.

Policy Statement:

Enfield Council considers effective highway asset management to be one of the key factors to ensure compliance with its statutory duties, enable the delivery of its corporate priorities, support effective highway services and improve road transport.

Enfield Council's Vision and Aims:

The Council's Business Plan, A Fairer Future for All, sets out how we will meet its Aims and Objectives. Effective highway asset management supports this in the following ways:-

Vision: To make Enfield a better place to live and work

For the Council to continue to progress towards its overall vision, it is recognised that good road transport links are essential for a successful economy and society. It is therefore important to ensure that its highway maintenance strategies and practices are fully supported by a robust highway asset management framework.

Enfield Council's Aims, relevant to highway asset management:

Fairness for All:

Provide high quality, affordable and accessible services for all.

Asset management provides a systematic approach, manages expenditure over the asset lifecycle and meets performance requirements in the most efficient way.

Growth and Sustainability:

A clean, green and sustainable environment.

Asset management practices will support the provision of highway maintenance services, contributing to the provision of a sustainable highway network and maintenance practices.

The Highway Asset Management Plan is one of the Council's strategic documents for delivering this aim.

Strong Communities:

Listen to the needs of local people and be open and accountable.

Documented highway maintenance policies and practices allow for scrutiny, transparency and accountability in delivering legal requirements, managing stakeholder expectations and maintaining the network.

Work in partnership with others to ensure Enfield is a safe and healthy place to live.

Asset management planning will support cross team working and across services, departments and partners to deliver the best possible services for Enfield's residents.

Enfield Council's Values:

Sound asset management practices will support Enfield Council's Values of –

One Team, Customer First, Achieving Excellence and Empowering People

Enfield's Transport Objectives:

Enfield has adopted 15 key transport objectives over the period of its Local Implementation Plan, compatible with the goals, challenges and outcomes sought in the Mayor's Transport Strategy MTS2.

Asset management practices will support the provision of effective highway services, contributing to those transport objectives relating to road travel.

Highway Asset Management Strategy

Introduction:

This asset management strategy is based on the aims and objectives for the management of Enfield's highway assets within Enfield's Highway Asset Management Policy and the contribution asset management makes to that process.

It seeks to ensure continual development and improvement of the asset management framework and places asset management principles at the heart of the provision of highway services.

The strategy serves as a basis for the continued development of detailed asset management planning processes and their implementation, including enabling the organisation, its technology and its processes to adapt to change.

Enfield:

Enfield has many strengths: a diverse and growing population, a successful business sector with the potential to grow, an attractive natural environment with over 100 parks and a highly performing council, working creatively with partners to deliver excellent services and address social issues. The borough combines green space and prosperous suburbs with industrial, commercial and residential areas undergoing comprehensive economic and social regeneration. In recent years there have been improvements in the quality of the area's parks, environment, schools and leisure activities and residents' satisfaction with local services has risen.

However, Enfield remains a borough of contrasts with inequality of opportunity and quality of life. Those living in our most deprived communities, primarily in the east and south of the borough, experience worklessness, low income, lower levels of health and life expectancy, housing problems and poor access to green and clean spaces, problems similar to those faced in inner London. Many of the problems and inequalities the borough faces have also been exacerbated by the recession, which is still having a significant impact on the Borough. The divide between the two parts of the borough is stark.

Enfield's population is predicted to grow and become even more diverse in the coming years, and it is expected that much of this growth will be concentrated in the more deprived areas, and amongst younger and older residents. Responding proactively to these changes, and the impact they will have on the delivery of services, will be vital to improving the quality of life for all residents.

We will also face significant financial challenges, as the cuts to public funding become a reality. Retaining our focus on quality and value for money and targeting investment where it is most needed will be key to meeting these challenges.

We have a clear vision for where we want the Borough to be in the future, and in addressing these challenges we will protect and promote what makes Enfield special and distinctive, while ensuring that we proactively tackle the problems we face.

Asset Management Framework:

Enfield's highway asset management framework is shown in figure1. It is the structure within which the highway network is maintained. It identifies the context in which Enfield's highway maintenance and asset management processes operate at the top and the relationship between the influences of corporate and national drivers, strategic policies and the asset management planning and delivery processes.

Asset Management Organisation:

The management of the highway network, due to its wide function and public access, involves a number of council services. In addition, other organisations outside the Council have statutory obligations and rights to place and maintain assets on the highway. In Enfield these are the utility companies who provide services within the borough and Transport for London.

Enfield's management organisation for highway assets is shown in figure 2. It shows the governance and decision making processes at the top and the services that have influences or responsibility for assets on the highway and the delivery mechanisms at the bottom.

The organisational structure and practices will be continually reviewed to ensure the most efficient and cost effective means of managing the highway assets is provided and that the organisation responds to changing circumstances.

Processes, Procedures and Continuous Development:

Enfield is committed to the development and implementation of good practice. Processes and procedures will be continually reviewed and improved ensuring, as far as possible, that the standards identified in relevant legislation and codes of practice are adopted and that the authority benefits from lessons learnt at national, regional and local levels through contribution to appropriate forums and benchmarking activities.

The key forums with respect to highway asset management and maintenance practices are: -

LoTAG London Technical Advisors Group and its subsidiary working groups.

CIPFA, Highway Asset Management Network.

Key processes are: -

Management and Organisation.

Communications and Stake Holder Engagement.

Customer Services and Levels of Service.

Performance Management.

Asset Management Systems.

Asset Data.

Lifecycle Planning of Asset Components.

Finance.

Delivery Programmes and Methods.

Risk Analysis.

Resilience and Response for Adverse Weather.

Future Demand.

Communications and Stakeholder Engagement:

Enfield recognises that its customers and stakeholders need to be engaged at various stages in the asset management and highway maintenance process to advise and give guidance on the services it provides and how customers may access them. Engagement raises public awareness of the challenges and issues that Enfield, as highway authority, faces and the balances and compromises that must be made and thus helps to manage customer expectations.

Engagement will be in accordance with the Council's Consultation Charter and Strategy. However, methods and success of customer engagement will be regularly reviewed and revised practices adopted. In line with the Council's corporate strategies greater use will be made of web access to information and use of social media.

Levels of service:

Specifications and levels of service have been established for the operational aspects of highway maintenance and for the service the council provides as Highway Authority to meet: –

Enfield's aims and vision as set out in the policy document.

Statutory obligations.

Customer expectations for levels of service cannot always be met, but satisfaction will be monitored in order that they may influence asset management policy, tactical and operational decisions. Using satisfaction and performance information we will review and amend, as appropriate, our standards. Enfield's goal is to improve public satisfaction with its highway service whilst maintaining value for money and continuing to provide a safe highway network, in line with corporate priorities.

Enfield's service standards for its customers will be continually reviewed, adjusted and published.

Performance Management:

Performance management is at the heart of Enfield's commitment to excellent customer services, embedding an outcome focused and performance driven culture.

Effective performance management data and information analysis underpins the delivery of excellent, value for money services, ensuring that high quality data, information and research supports decision making.

The target levels of service specified for the highway network will be the levels against which actual performance can be measured and are appropriate for effective asset management.

Performance indicators will be provided for the National Indicator Set, local performance monitoring and in benchmarking exercises.

Performance indicators will be monitored and adapted in order to continue to be appropriate, consistent, reliable and comparable.

Indicator information will be used to analyse successes and identify areas for improvement.

Performance targets and management will be extended beyond Enfield's direct service provision through to its contractor works provision, maintaining our performance driven culture through the whole supply chain.

Asset Groups:

A key function of the asset management process is to understand the spending needs of the different asset groups and their components which comprise the highway network.

In accordance with national guidance, the highway network is divided into the following asset groups: -

Carriageways.

Footways.

Cycleways and cyclepaths.

Footpaths, Bridal Ways and Rights of Way.

Street Lighting.

Bridges and Highway Structures.

Highway Drainage.

Street Furniture and Signs.

Historic Features, Street Art and Miscellaneous Items.

Environment -

Grass verges.

Trees.

Shrub Beds.

Lifecycle Plans for Asset Groups:

In line with national guidance and good practice, Enfield will develop lifecycle plans for different asset groups and apply this to the management of its highway maintenance activities, understanding how long specific maintenance treatments last, the relative cost of those treatments and the levels of service provided. This will enable predictive and timely intervention of appropriate maintenance methods and support budget requirements. As part of this the estimated service life of all assets will be kept under review.

Information Systems and Data Management:

Effective asset management and its implementation rely on systems that can be used as tools to support decision making at all levels.

Highways Services uses four core secure data systems to create and store asset information: -

Highways by Exor contains 14 modules to provide a fully integrated system to cover public enquiries, contractor orders, street works permitting, highway licensing asset information.

Bridgestation is a specific data storage and management system for bridges and highway structures, which allows for recording of inspections and assessment results, stores all relevant documents and configures life cycle plans and prioritises maintenance.

ESYTREEV co-ordinates the management of trees and includes, inventory analysis, on-site tree data collection, surveying, re-inspection, GIS mapping, tree risk assessment and tree valuation management.

Citygestion is the management system and data base for all street lighting and illuminated assets. This is provided and managed by the council's street lighting service provider.

These systems will be maintained and upgraded to benefit from continual improvements in IT and developments in asset management. The Exor system, in particular, will be further developed and configured to maximise the benefits of a fully integrated system across the key areas of the highway service provision, supporting web based enquiries, automated back office activities, monitoring and customer feedback.

A Council-wide centralised Asset Management System provides a definitive repository for information on Council owned capital assets and a single point of reference for all information on property assets that are either owned or controlled by the Council in order to inform the Council's strategic asset management planning processes. Because of the complexity of the management of the highway network, a separate highway management system will continue to be utilized. Regular reports will be exported to the corporate asset management system as appropriate.

Good and robust data is key to implementing asset management and delivering its benefits. A highway asset information plan will be developed which provides information on all highway related data sets held and how they are managed and used. The development and implementation of this plan will ensure that asset information is maintained at an acceptable level of accuracy and usability. It will set out in one place the strategic and operational requirements for maintaining asset information.

Asset data will be maintained through: -

Reports through safety inspections and routine and reactive maintenance functions.

Regular carriageway and footway condition surveys of the borough road network.

Continued procurement, through Roads 2010, of scanner surveys of the principal and classified road network and skid resistance surveys of the principal road network.

Principal and General inspections of highway structures.

Resurveying, as appropriate, of specific asset groups and by following procedures for change control as a result of scheme implementation or maintenance.

This will support improved understanding of asset deterioration, the actions and budgets required to maintain set levels of service and provide data for Whole of Government Accounts returns.

The council is required as part of its overall information governance structure to ensure that appropriate controls are implemented and maintained in relation to the collection, use and retention of personal information pertaining to its customers, clients and staff and that these are in accordance with the requirements of The Data Protection Act 1998 (DPA).

The Council has in place a data protection policy and all activities associated with highway asset data will be collected, stored, accessed and used in accordance with that policy.

Asset Valuation and Whole of Government Accounts (WGA) Reporting

WGA has set requirements for the way the value of the highway asset is reported to the HM Treasury in Enfield's audited accounts.

Enfield Council will continue to develop its data, records and depreciation modelling in order to provide accurate information to satisfy the financial reporting requirements defined in the Transport Infrastructure Assets Code, published by the Chartered Institute of Public Finance and Accountancy (CIPFA) May 2013 and any subsequent amendments or directives issued.

Funding, Budget Allocation and Forward Programme:

Enfield Council, as a London borough, with Transport for London (TfL), as a strategic transport authority, does not generally receive funding for highway maintenance from central government direct, except for special purposes. Enfield council therefore funds the majority of all capital highway maintenance. Funding levels for each asset and the work programmes are approved

by the Cabinet Member for Environment & Community Safety each year following budget setting by full Council.

Capital funded planned carriageway maintenance of principal roads in the borough is funded by TfL who approves funding levels and scheme priorities each year.

All routine and reactive maintenance works on the highway are funded by Enfield Council.

Asset condition is an ever-varying situation. As certain assets are brought up to standard, others are deteriorating. It is recognised that there will never be a zero maintenance requirement, but a sustained level of funding is required to maintain a steady state condition.

Asset management will be used to explore budget scenarios, assess required funding levels against levels of service, allocate funding to appropriate asset groups and help to identify individual schemes their appropriate treatment and intervention.

Inherent to this process is a need to understand the influence of budget decisions on customer satisfaction and delivery of the corporate priorities. Furthermore, the impact that investing on one asset component may have on the overall performance of other asset components, as well as the whole asset, is examined. To this end, a needs based budgeting approach will be developed to inform decision makers of required budgets relative to service levels and aspirations.

It is intended that provisional longer forward work programmes are produced, which will assist in establishing longer term budgeting requirements in order to maintain an acceptable condition level.

Business Continuity, Risk and Resilience:

Some elements of the network are more vulnerable than others and some routes are more relied upon than others. A risk based approach is an essential element of asset management in establishing priorities, levels of service and co-ordination of activities.

Population and employment growth, coupled with aging highway assets and continuing utilities works, will be a significant challenge in ensuring the reliability and resilience of Enfield's highway network.

Winter Service will be provided in accordance with the Council's winter maintenance plan which is regularly reviewed.

Highway assets, like other transportation assets, must be resilient. Assets will also need to be resilient to future forecast weather changes and their consequences such as flooding. The infrastructure may need to be adapted or retrofitted to higher standards of resilience to the effects of climate change and other risks.

Enfield's asset management practices will be developed to ensure that key assets are resilient in order that priority routes within the network can be kept open and operating.

Sustainability:

Enfield's sustainability strategy is focused on saving money, creating local jobs, improving the environment, reducing waste and improving public health. The Enfield 2020 Action Plan includes a number of projects to save money by saving energy, enabling savings to be redirected to front line services.

Asset management planning will play a key role in continuing to develop sustainable processes in highway improvement projects and maintenance through extending the serviceable life of its assets with appropriate and sustainable treatments.

Key areas for sustainable construction techniques and management of the assets are: -

- Trimming and dimming of street lights and incorporating improvements in lighting technology.

- Introduction of sustainable drainage systems.

- Use of recycling techniques to treat the presence of tar within road construction.

- Continued development with our contractors of sustainable solutions to highway maintenance, which reduces energy consumption, waste and use of natural resources.

Enfield will continue to support the Mayor of London's Electric Vehicle Delivery Plan for London and through its Cycle Strategy and Action Plan will expand its cycleway network, including greenways which will also encourage walking.

Future Demand:

Demands upon the existing highway network will continue to grow as planned growth areas are redeveloped. These are identified in Enfield's Local Development Framework and Area Action Plans.

Enfield's aging road network will need to respond to changes due to climate change and increased resilience to adverse weather.

The asset management plan, predictive deterioration assessments and future maintenance strategies will need to take these factors into account.

Although good progress has been made in recent years in reducing the maintenance backlog, substantial programmes of investment will be required in the future.

Figure 1

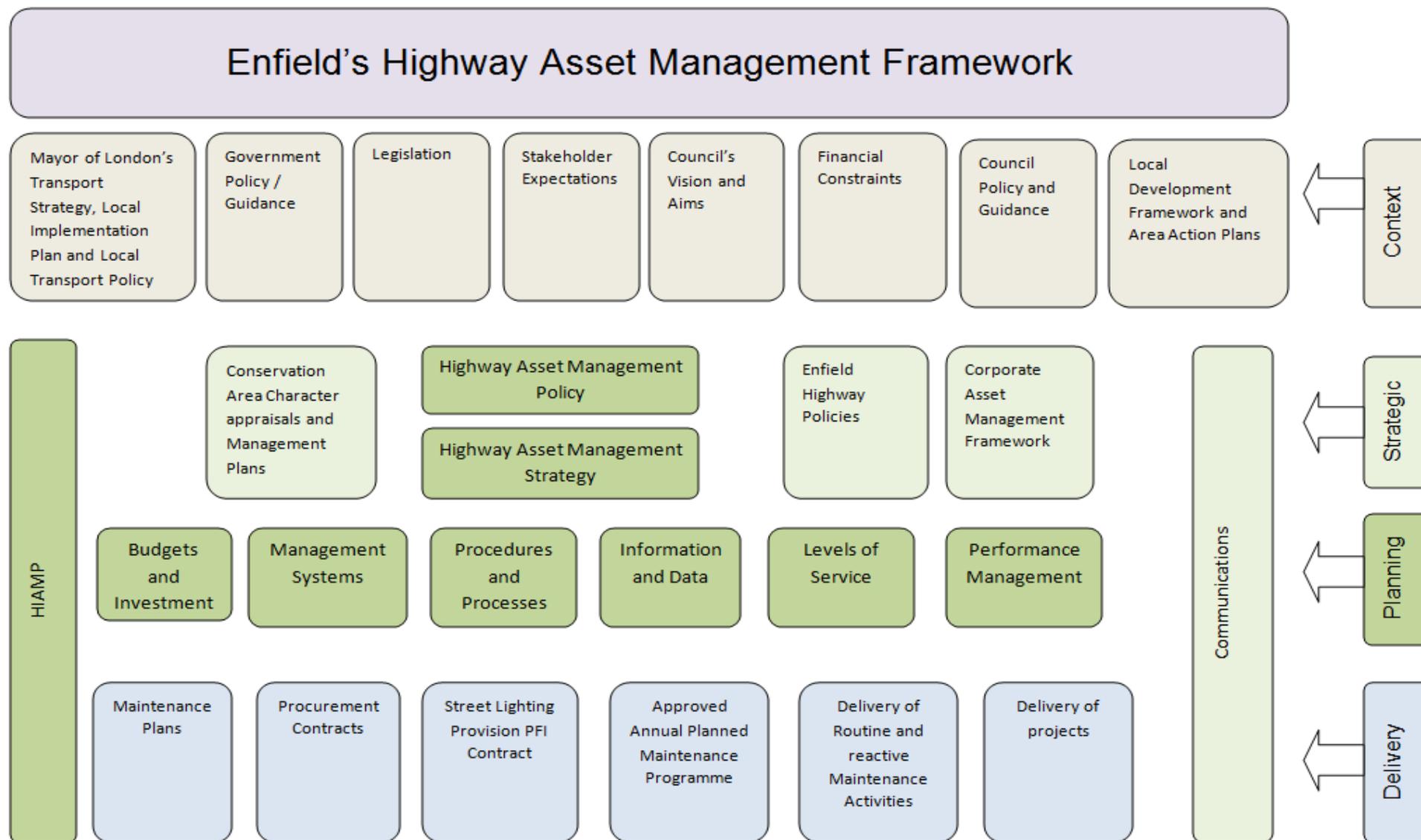


Figure 2

