

Transport Asset Management Plan

2016-2020

Policy & Overview Document

Annual Update - January 2017



Foreword by the Cabinet Member for Neighbourhoods

The highway network in North Lincolnshire comprises 1392km of roads. With an asset value in excess of £1.3 billion (excluding land), it is the most valuable infrastructure asset owned by the Council.

As a highway authority, the Council has a statutory duty to maintain the highway. We do so in the face of increasing pressures.

We manage the highway network on behalf of the travelling public, whether they are pedestrians, cyclists, bus operators, taxi operators, freight operators or car users. How we maintain our highway network impacts on all users of the highway.

A Transport Asset Management Plan (TAMP) has been written to provide a summary of how we go about managing the maintenance of our highway assets.

At present, the TAMP has focussed on the following asset groups:

- Carriageways
- Footways
- Street Lighting
- Structures (Bridges & culverts)
- Traffic Management (Traffic Signals)

In time, we expect to develop the TAMP to cover other asset groups such as drainage, street furniture, electronic systems and public transport assets.

The purpose of the Transport Asset Management Plan is to:

- Formalise strategies for investment in highway asset groups
- Define affordable service standards
- Improve how the highway asset is managed,
- To assist in delivery of a better Value for Money highways service

The TAMP is a live document and we will continue to review and update our policy and processes in response to emerging best practice in this field.

This document presents the annual update on the policy and overview of the TAMP 2016-2020.



Councillor Neil Poole Cabinet Member for Neighbourhoods

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Associated Documents

The following North Lincolnshire Council documents are essential components of the council's approach to transport asset management and complement and support this plan;

- H&P Quality Manual
- Local Transport Plan 3
- Highway Maintenance Strategy
- Winter Maintenance Plan
- Risk Management Strategy and Action Plan
- Road Safety Strategy
- Information Management Policy
- Traffic Signs Policy
- Street Lighting Policy

Other reference documents;

- CIPFA – Code of Practice on Transport Infrastructure Assets 2016
- Highways Maintenance Capital Funding Self-Assessment Questionnaire for Incentive Funding
- Highways Maintenance Funding Formula and Indicative Incentive Fund Allocations 2015-2020

Responsibility

Implementation of each of the Transport Asset Management Plan elements is the responsibility of the following people;

Transport Asset Management Plan Element	Main Council Position(s) Responsible
TAMP Document	<ul style="list-style-type: none"> • Council Cabinet • Elected Member (portfolio holder) responsible for Highways • Director responsible for Highways
TAMP implementation and practice improvements	<ul style="list-style-type: none"> • Director responsible for Highways • Asset Manager (Highways & Neighbourhoods)
TAMP document updating and reporting	<ul style="list-style-type: none"> • Asset Manager (Highways & Neighbourhoods)
Finance and Valuation	<ul style="list-style-type: none"> • Asset Manager (Highways & Neighbourhoods) • Council Finance Section
TAMP Data	<ul style="list-style-type: none"> • Asset Manager (Highways & Neighbourhoods) • Highways UKPMs / data section (Asset Evaluation Team) • Council GIS section
TAMP Risk	<ul style="list-style-type: none"> • Asset Manager (Highways & Neighbourhoods) • Council's Corporate Risk section
Asset strategy options reports	<ul style="list-style-type: none"> • Asset Owners

Document Control

Version Number/Date	Approved by Council
V1.0 / January 2016	January 2016
V2.0 / January 2017	January 2017
Next Update Due	January 2018

1. Introduction

This section provides a brief introduction to the Transport Asset Management Plan and identifies how it is aligned with other council documents.

Overview

The Government encourages councils to develop asset management plans for their infrastructure assets via the Highways Maintenance Efficiency Programme (HMEP).

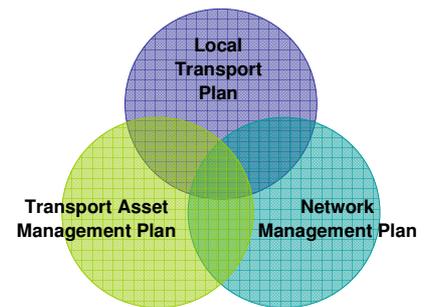
The purpose of the Transport Asset Management Plan (TAMP) is to:

- Formalise strategies for investment in highway asset groups
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Links to Other Plans

This TAMP relates to other council plans as illustrated.

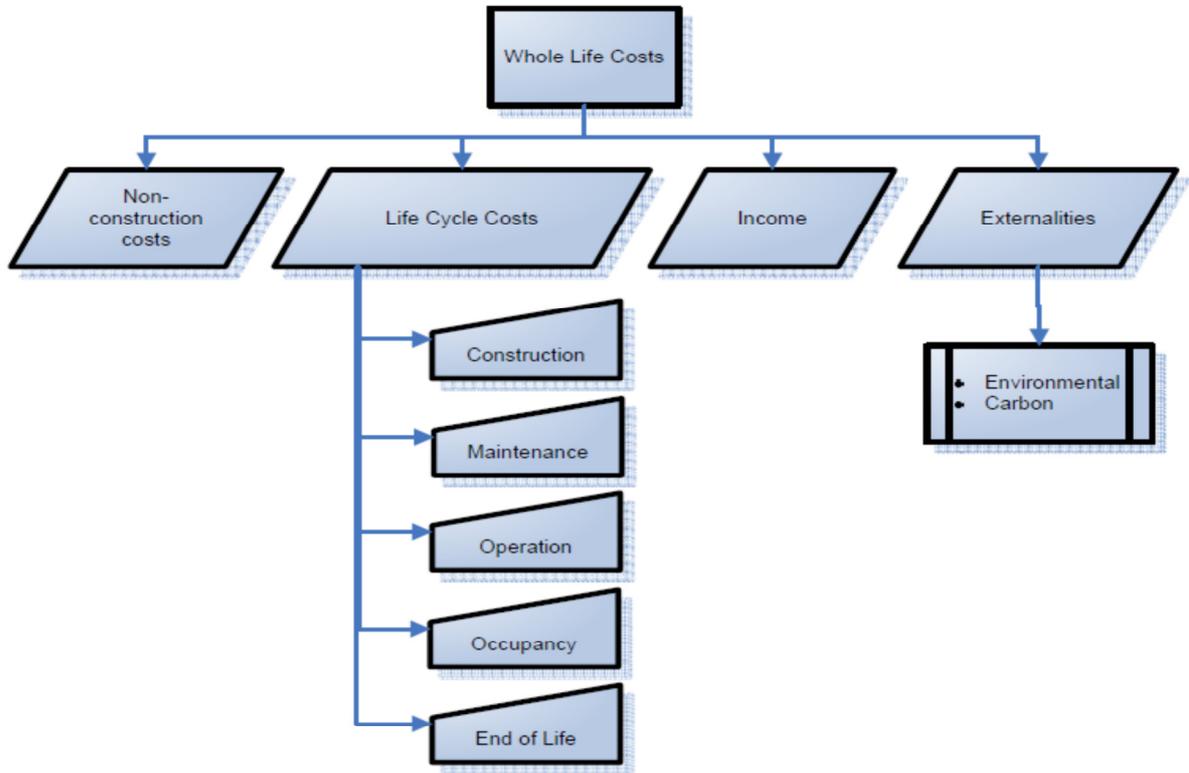
The 2014 Local Transport Plan (LTP) sets out the transport policies for the council and indicates potential financial allocations for Integrated Transport and Highway Maintenance – these being the two funding streams within the LTP award.



The Network Management Plan (NMP) is produced to document our arrangements in respect of carrying out our network management duty in relation to the Traffic Management Act 2004. The NMP has a direct bearing on our way of working and the allocation of funding for management of the highway network.

The adoption of asset management for highway assets is an on-going process of the use of more structured management processes and adopting a long term planning approach.

The long term planning process requires the assimilation of all information, together with the whole life costs, for each and all of the assets being considered. These whole life costs include not only the 'life cycle' costs for each of the assets, but also the non-construction costs, income from the asset and externalities associated with the asset. This can be seen in the flow chart on the following page.



2. Asset Description

This section outlines the size and extent of the asset that is included within this Management Plan.

2.1 Highway Assets Covered by the Transport Asset Management Plan

The highway assets covered by this plan are wide ranging and comprise of the following elements:

Asset Group	Element	Quantity
Carriageway	Road construction including lay-bys, bus lanes etc.	1,392 km.
	The carriageway group also includes: Kerbs, line markings and studs, traffic calming features – including tables, humps, chicanes etc., hard strip / shoulder / verges / vegetation, boundary fencing	
Footways and footpaths	Footway – adjacent to the carriageway	960 km.
	Public Rights of Way remote from the carriageway including byways, restricted byways, bridleways and footpaths.	534 km.
	The footway and footpaths group also includes; Roadside signposts (207), waymark posts (1,593), small pedestrian bridges (192), stiles (212), gates (135), flights of steps (25), countryside car parks (7), Interpretive panels (10) and boardwalks (6).	
Cycleways	Cycleways – either on carriageways or shared with footways included in carriageway section	N/A
	Cycleways - remote from the carriageway – included in carriageways and/or footways	N/A
Structures	Bridges	144
	Footbridges	5
	Culverts (large diameter piped drains under the road)	131
	Retaining Walls	2
	Underpasses / Subways	1
Street Lighting	Lighting columns	23,659
	Illuminated signs	1,213
	Illuminated bollards and beacons	535
	Feeder pillars (council owned)	133
	Cabling for street lighting	142 km
Traffic Management Systems	Signal installations at junctions	36
	Signal installations at pedestrian, pedestrian/cycle, pedestrian/horse crossings	17
	Variable message signs	15
	Vehicle activated signs	20
	Safety and speed camera equipment	1
Drainage	Gullies	22,519
	Manholes and catchpits	44,680
	Piped drains	1,840 km
	Pumping stations	6
	Oil interceptors	6
	Hydrobrakes	4
	The drainage group also includes; Balancing ponds, roadside ditches, swales, soakaways, inlets and outfalls etc	
Street Furniture	The street furniture group includes; Vehicle safety fences, non-illuminated signs (warning, regulatory and local direction/information signs/posts), bollards, pedestrian guardrail, street name plates, litter and grit bins, seating, bus stops (1,102), highway trees (approx 8,000) etc.	

2.2 Assets not covered by this plan

Some highway related assets are the responsibility of other council departments for maintenance purposes. The assets that are not covered by this TAMP are:

- Scunthorpe bus station
- Barton Interchange (bus station)
- Car Parks

3. Community Requirements

This section describes information about the community's requirements for the transport/highways asset. It outlines how this information is obtained and what it says in relation to community preferences.

3.1 Customer Consultation

The consultation process for LTP3 allowed us to build on the extensive consultation exercises we undertook with the community as part of the LTP2 midterm review. Various community groups and local forums were consulted. The key issues raised as part of this process related to winter maintenance & safety of roads in bad weather and the condition of footpaths. Both of these issues have been addressed over the early part of the Plan period.

Individual schemes are consulted on with various stakeholders and their view is often incorporated within the design. Some schemes are designed directly from customer consultation.

In general terms - members of the public can contact us 24 hours a day, seven days a week, through various formats, to provide any comments on the highway network. All carriageway complaints are monitored through the Confirm Customer Service Database.

4. Future Demands

This section outlines the anticipated demands that will be placed on the asset over the duration of the plan. These have been considered when formulating the plan and presenting the risks associated with it.

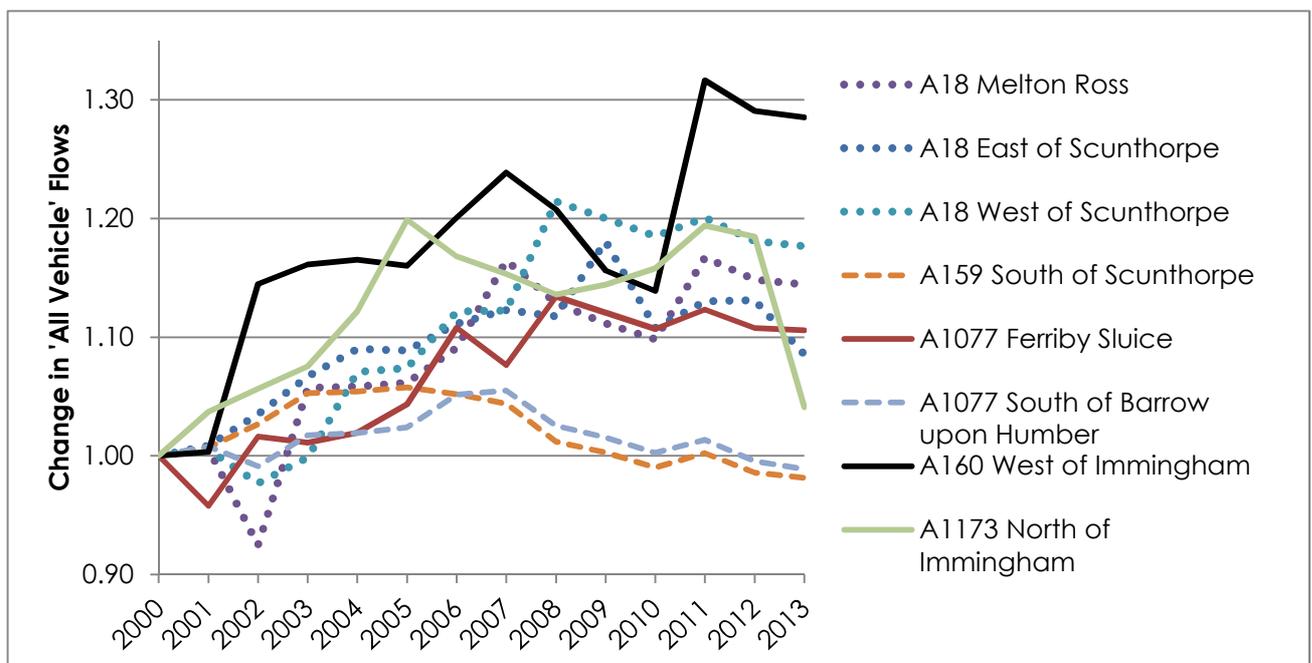
4.1 Asset Growth

New highway assets are continuing to be added thereby creating an additional need for maintenance and management. The asset is growing marginally year on year due to the adoption of additional roads into the network and through improvement activities such as traffic safety schemes and construction of new road links.

In addition to this our obligations in relation to the drainage network have been significantly increased as a result of the Flood and Water Management Act 2010. The council are now the new sustainable urban drainage systems approval body and this will allow us to manage more closely the potential impact of drainage issues relating to new development schemes.

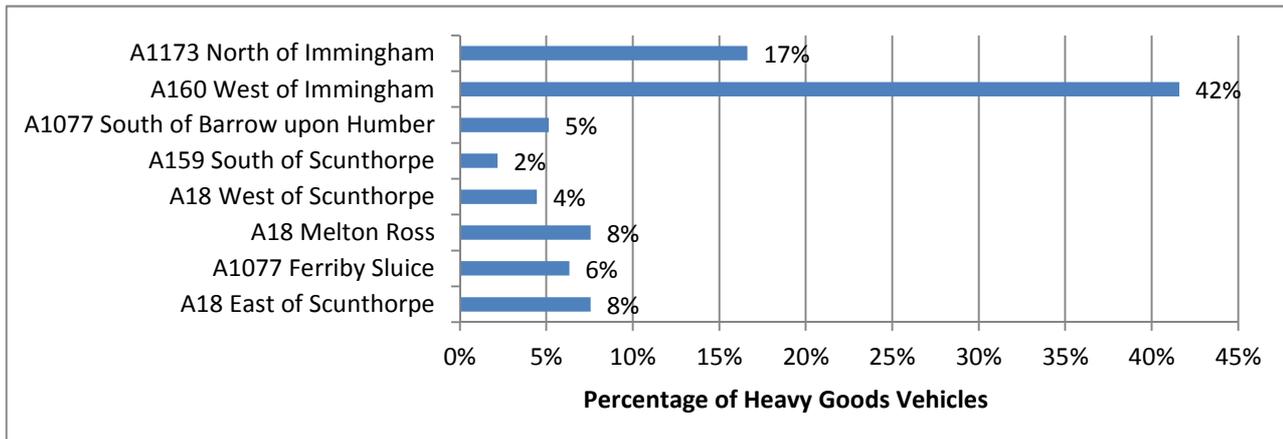
4.2 Traffic Growth

Traffic growth is monitored on major and 'A' class roads by the Department for Transport. A graph showing the changes in traffic flows on roads in North Lincolnshire since 2000 is shown below. There is clear indication that traffic growth on some parts of the road network greatly exceeds that on others with the greatest growth being on the A160 West of Immingham.



4.3 Traffic Composition

Traffic composition is a major factor affecting the rate of deterioration of our highway infrastructure. Where there are heavy wheel loadings the damage and deterioration of the road surface is much greater. The graph below is an indication of the percentages of Heavy Goods Vehicles, of total traffic flows, travelling on major roads on our highway network.



4.4 Environmental Issues

In addition to the need to consider climate change in terms of maintenance methods and materials used there is also the real issue of impact on the carriageway infrastructure of long periods of very wet or dry conditions. These have a particular impact on roads in the Isle of Axholme, which are constructed on a water sensitive base material which, on drying, shrinks significantly and unevenly. This has the effect of significantly reducing the carrying capacity of the road construction and of creating surface alignments that are not consistent with high or medium speed traffic requirements.

Looking at the bigger picture, recycling of road construction material during maintenance schemes is a significant part of our contribution to minimising the impact of highway maintenance issues on the environment. This aligns with our accreditation to ISO 14001: Environmental Management Systems.

5. Service Standards

This section outlines standards that users can expect from the council's transport assets. It records how these are measured and presents the targets that have been set for the duration of the plan.

5.1 Purpose

The TAMP is based upon delivery of identified service standards. We measure and monitor performance against the service standards in order to determine if the levels of service being provided match up with customer expectations and are in line with both national and local goals and objectives. Therefore, there is a direct link between levels of service, corporate objectives, LTP priorities and funding levels. Publishing these standards enables everyone to understand what they can expect from our highway assets.

5.2 Service Standard Targets

The service standards are given in the TAMP and these are set to deliver a road network that is as safe, reliable and as fit for purpose as possible within current funding and resource constraints.

5.3 New Well-Managed Highways Code of Practice

October 2016 saw the introduction of the updated Well-Managed Highway Infrastructure Code of Practice. This document is a new combined version of three previous codes of practice.

The code is designed to promote the adoption of an integrated asset management approach to highway infrastructure management based on establishing local levels of service through risk based assessment. There will be an 18 month period for North Lincolnshire to adopt its own risk based approach (deadline April 2018).

North Lincolnshire has been working with the East Riding of Yorkshire in producing an area wide document, as recommended in the code, and hopes to bring Hull City and North East Lincolnshire on board. It is hoped to have a version of the code relating to highways only approved for April 2017.

6. Asset Management Practice

This section defines the asset management practices and documentation that the council uses. The application of good practice and its documentation is essential to the achievement of this plan.

6.1 Asset Management Policy

Our asset management policy, the principles of which are, to:

- Apply asset management systems to manage transport assets
- Publish a Transport Asset Management Plan
- Report achievements and performance annually (outcomes)

6.2 Highway Asset Management Manual

The systems used to manage our transport assets are set out in the Highway Asset Management Systems Manual. The manual defines how and when we:

- i. Inspect
- ii. Categorise and prioritise reactive repairs
- iii. Assess condition
- iv. Identify and prioritise sites for resurfacing (or reconstruction)
- v. Choose the materials used
- vi. Prepare works programmes
- vii. Procure and manage works
- viii. Record and report costs
- ix. Record and respond to customer contacts

6.3 Asset Investment Strategies

Specific investment strategies have been compiled for the major asset groups of carriageways, footways, structures, street lighting, drainage and traffic signals. Each strategy defines how the target service standards are to be delivered. In particular they address the types of works that are planned and state where a “prevention is better than cure” approach has been adopted.

6.4 Annual Status and Options Report

This report annually summarises the status of each asset group. The report describes the result of the previous year's investment in terms of meeting the target service standards. A more detailed report also includes long term predictions of levels of defects and condition and is used to enable the council to choose how to best allocate the following years' budgets and to decide whether any of the service standards contained in the plan need to be revised. At the date of this summary report detailed draft strategy options have been produced for carriageways, footways and structures. Reports for other assets will be produced in due course.

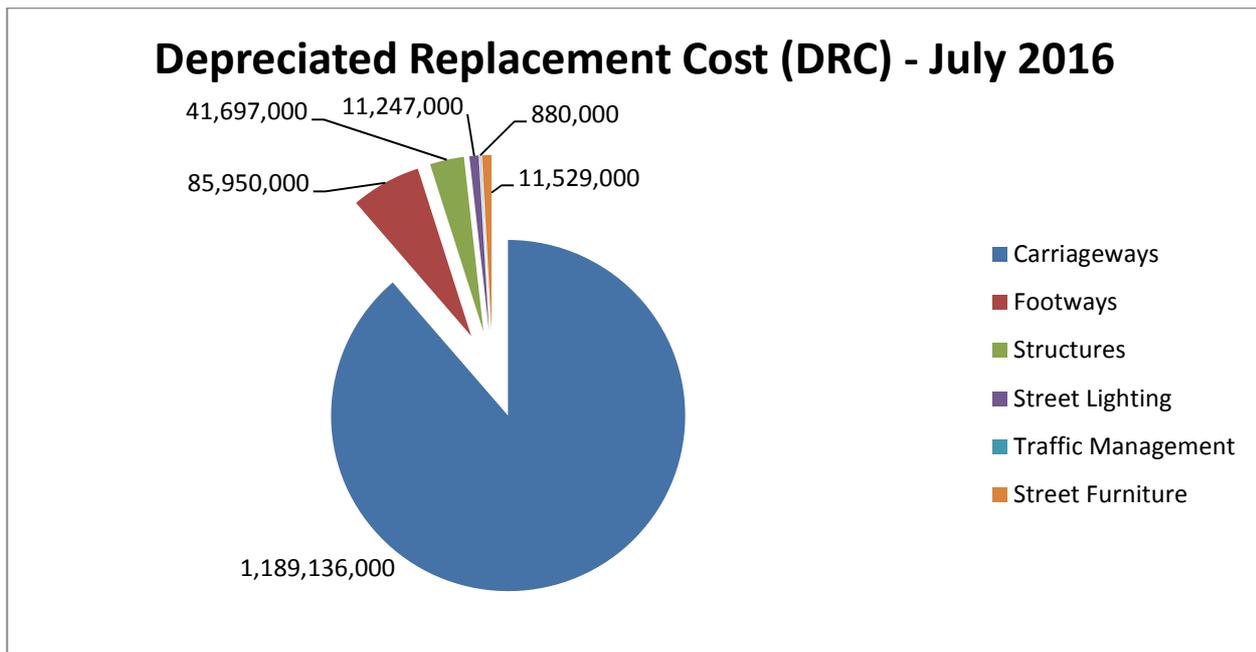
7. Value of the Highway Asset and the financial strategy for its management

This section describes the financial issues associated with asset management practices. Effective financial management and its documentation are both essential to the achievement of this plan.

7.1 Asset Valuation

As of July 2016 the transport asset is valued as shown in the chart below:

Total Asset Depreciated Replacement Cost (DRC) **£1,340,440,000** (excluding land)



Typically assets are carried on local authorities Balance Sheet at their market value, which is known as their current value. For property, plant and equipment, where a market exists, this is based on the estimated market value in existing use. For Highways Network Asset, there is no market and it is not usually possible to sell the asset. For assets where no market exists, the Accounting Code requires the use of depreciated replacement cost (DRC).

7.2 Long Term Funding Needs - Asset Investment Strategies

Long Term Cost Prediction modelling enables the authority to understand the relationship between future funding needs and resulting condition / performance levels. The level of complexity of each asset model is dependent on the asset data available and the deterioration mechanism used.

The following outlines the asset investment strategies being developed for each of the main asset groups as part of the TAMP;

Carriageways:

For the carriageway asset we are concentrating on a process of surface repair where possible and only using deeper strengthening treatments where the carriageway construction has failed. Examination of condition trends and combining this with local knowledge indicates that our unclassified roads are those that need the greatest attention in the short to medium term.

Alongside the maintenance issues there are a number of carriageway infrastructure development schemes either under way or in the pipe line as detailed in the LTP, these being;

- Highway improvement schemes associated with South Humber Gateway
- Humberside Airport access improvements, including A18 Melton Ross Bridge
- Lincolnshire Lakes infrastructure, creating six new villages, as well as including the de-trunking of the M181
- Local infrastructure schemes, A1077/B1216 Junction improvements and the A1077 South Ferriby realignment.

Once these have been built their maintenance will contribute to the asset management planning process.

Footways:

We have recently completed a footway network survey that allows identification of specific elements and sections of the footway network where the condition is below standard. This information, when allied to use and importance of the sections of the footway network allow us to identify and select those sections of footway that are in greatest need of attention.

Street Lighting:

We are currently investing in replacement of time expired and faulty lighting columns. This work is being carried out in conjunction with replacement of lighting units, where this is suitable, with modern Light Emitting Diode (LED) units that are considerably more energy efficient and in reducing maintenance costs.

Drainage:

Drainage assets have the problem some being buried and therefore we may not know exactly what we have, where it is and in what condition it is in. Because of this we are limited to maintaining that which we know about and developing a record of what exists within the highway. We recognise the increased risk of flooding damage and safety issues resulting from water on the carriageway and our plan is to invest in developing a system that more effectively deals with management of drainage issues.

Structures (Bridges):

Our long term strategy with our structures asset is to maintain them such that significant costs do not arise there are instances – as at present – where a bridge on a strategic route is showing signs of distress and requires urgent attention. Currently our main issue is with the A18 railway bridge just to the west of Humberside Airport. This is on a section of the A18 that provides a critical connection between the airport and the strategic road network at Junction 5 of the M180.

Traffic Management (Traffic Signals):

We are currently updating the inventory for traffic signals. From this we can develop schemes based on the information obtained. So far we have identified schemes for the oldest asset, most frequently

maintained and are currently working towards identifying options for better connectivity and communication between sets of signals to improve traffic flows.

8. Risk Management

Risk management and control is essential to the effective delivery of this Plan.

8.1 Risk Management Strategy

The Corporate Risk Management Strategy sets out how the council manages risk corporately. This strategy is also applied to managing the council's transport assets. A risk register is compiled for the risks associated with the transport/highway asset. The methods used to create and manage this transport risk register are set out in the asset management manual. The highest rates risks that were considered when compiling this plan as shown in the table below:

The risks that could prevent the achievement of the targets set by this plan are:

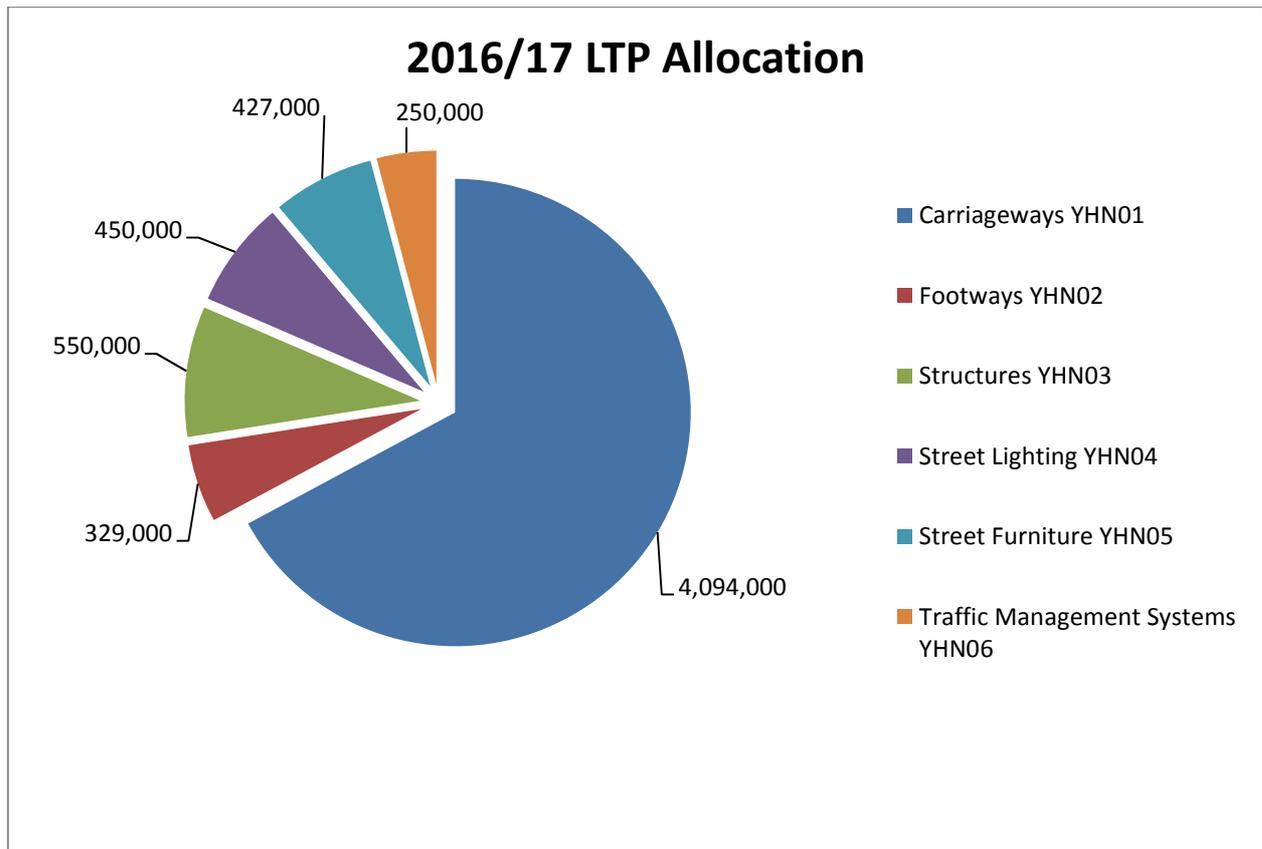
Plan Assumption	Risk	Action
The plan is based upon winters being normal.	Adverse weather will create higher levels of defect occurrence and deterioration than have been allowed for.	Budgets and predictions will be revised and this plan updated if abnormally harsh winters occur.
Available budgets are as assumed.	External pressures may mean that government will reduce the funding available for highways.	Re-assess budget allocation annually to reflect external pressures. Prepare business cases to request additional funding from other authority budgets.
Construction inflation will steadily increase.	Exceptional inflation of construction costs may increase the cost of works (particularly oil costs as they affect the cost of road surfacing materials).	Re-assess budget allocation annually to reflect external pressures. Prepare business cases to request additional funding from other authority budgets.
Levels of defect occurrence and deterioration are based on current condition data.	Continuing collection of condition data may identify that asset condition is worse than predicted and the investment required to meet targets may be insufficient.	Re-assess budget allocation annually to reflect improved extent of condition data.
Resources are available to deliver the identified improvement actions	Pressures on resources may mean that staff is not allocated to service improvement tasks.	Monitor the situation regularly and advice council accordingly.

9. Funding Allocations

This section outlines existing funding and future funding streams from government. Effective financial management and its documentation are both essential to the achievement of this plan

9.1 Current Allocations

The LTP capital funding allocations identified are as follows:



Note: Surface Treatments includes work on the Principal Road Network (PRN) and the Non Principal Road Network (NPRN). It comprises of reconstruction schemes, surface dressing, micro asphalt, plane and inlay and recycling schemes.

There are further funding sources that are used, where possible, to fund other transport related issues. In addition to this the council has committed capital funding specifically for larger highway construction schemes, drainage and flood defence, street lighting works and general highway works, including pothole repair.

9.2 Future Allocations

Future funding will now be determined by two methods

- Highways Maintenance Funding Formula (Needs Based Formula)
- Indicative Incentive Allocations

The Department for Transport (DfT) have presented multiyear funding figures that are subject to data being refreshed in 2018/19 and beyond. The tables below show this Highway Maintenance Funding Formula along with the possible money available subject to which "Band" North Lincolnshire fits into, for the incentive funding element.

The incentive funding element is produced from a self-assessment ranking questionnaire that is to be presented to DfT on an annual basis. There are three possible "Bands". North Lincolnshire Council was a "Band 2" at time of submission for the deadline of 31 January 2016. It is looking like North Lincolnshire will still be a "Band 2" on submission in January 2017.

Year	Total Needs Based Allocation	Band 3 - Highest = 100% of max incentive	Band 2 – Medium = 100% of max incentive	Band 1 – Lowest = 90% of max incentive
2016/17	£4,218,000	£255,000	£255,000	£230,000

Year	Total Needs Based Allocation	Band 3 - Highest = 100% of max incentive	Band 2 – Medium = 90% of max incentive	Band 1 – Lowest = 60% of max incentive
2017/18	£4,090,000	£383,000	£345,000	£230,000

Year	Total Needs Based Allocation	Band 3 - Highest = 100% of max incentive	Band 2 – Medium = 70% of max incentive	Band 1 – Lowest = 30% of max incentive
2018/19	£3,702,000	£771,000	£540,000	£231,000

Year	Total Needs Based Allocation	Band 3 - Highest = 100% of max incentive	Band 2 – Medium = 50% of max incentive	Band 1 – Lowest = 10% of max incentive
2019/20	£3,702,000	£771,000	£386,000	£77,000

Year	Total Needs Based Allocation	Band 3 - Highest = 100% of max incentive	Band 2 – Medium = 30% of max incentive	Band 1 – Lowest = 0% of max incentive
20/21	£3,702,000	£771,000	£231,000	£0

10 Collaborative Working

In 2016 it was announced there would be a £450 million devolution package for the creation of Greater Lincolnshire comprising of 10 councils.

As part of this work there have been several meetings with North Lincolnshire, Lincolnshire County Council and North East Lincolnshire Council with regard to asset management planning and the incentive fund.

Lincolnshire County Council was one of two councils in the country to obtain a Band 3 in the Incentive Fund and we are working closely with them in order to improve our Band from a Band 2 to a Band 3. A series of meetings have been undertaken assessing the gaps to each of the 22 questions across the three authorities. The process is on-going and is already showing signs of improvement for all involved.

North Lincolnshire and the East Riding of Yorkshire Council are currently working towards implementing a single shared Code of Practice for Well Managed Highways. It is hoped to extend this code to cover street lighting and structures in the future.

North Lincolnshire and North East Lincolnshire currently have a framework for the collection of highway survey data and are also working closely together on the whole government accounts aspect of the highway asset.