

**Clackmannanshire Council**  
**Road Asset Management Plan 3**  
**2015 - 2018**

## Foreword

This plan sets out the Council's plans for the management of the Roads Asset for the next 10 years. It has been produced in accordance with national guidance and recommended good practice developed through the SCOTS Roads Asset Management Project.

It is widely recognised that the application of modern asset management practices can enable improved value for money. In these challenging times it is essential that the Council embraces these methods and strives to ensure that all resources are invested prudently. This plan forms a crucial part of the Council's commitment to apply good asset management to the road network.

The plan recognises the views of all stakeholders and the importance that is placed upon our Roads Assets. Recent harsh winters have shown that our roads are susceptible to damage when bad weather occurs. It is essential that an appropriate level of investment is put into the road network to maintain and ultimately improve one of the main principles of the Council, that of the economic wellbeing of the locality.

*Councillor Signature*

Councillor Balsillie  
Roads Convenor

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## Document Control

Version Number	Amendments Made	Date
v1	Nil - Original	4 November 2010
v2	Revised to reflect progress made	Nov 2012
v3	Format of RAMP changed	Dec 2014
<b>Next Review Due</b>		November 2015

## Council Approval

Version Number	Council Committee	Date
v1	Clackmannanshire Council	4 November 2010
v2	Enterprise & Environment Committee	31 January 2013
V3		

## Responsibility for the Plan

The responsibility for the delivery of and updating of this plan are shown below

Council Officer	Responsible for
Charles Norman	Service Asset Management Champion responsible for delivery.
Scott Walker	RAMP Development

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## 1. Introduction

### Overview

The Roads Asset Management Plan (RAMP) records the Council's plans for the maintenance of the Roads Assets, for the period 2015-2018. The "Roads Asset" comprises of carriageways, footways, structures, street lighting, traffic management systems and street furniture.

This Plan is consistent with the Council's corporate approach to asset management as set out in the Corporate Asset Management Strategy.

The purpose of the RAMP is to:

- Formalise strategies for investment in Roads Asset groups
- Define service standards

The Plan aims to improve how the Roads Asset is managed and to enable a better value for money roads service to be delivered. The following information is essential to achieve this:

<b>What we need to know</b>	<b>How we are doing it</b>
What are our assets?	Comprehensive analysis to determine what assets we have and a gap analysis to understand where we were short of asset data.
How many do we have?	We carry out analysis of existing data and complete asset data collection surveys, to gain an accurate count of our assets.
Where are they?	By confirming the accuracy of existing data and adding newly surveyed data. We are producing asset location data in GIS format for mapping purposes.
What condition are they in?	By analysing our various condition surveys and combining them with our safety inspections & customer reports.
Do we still need them?	By identifying those assets that are no longer required and remove them from the network, therefore saving on annual maintenance costs and liability.
What do they cost (install / maintain / replace)?	By identifying and monitoring spend against specific assets, for both reactive and planned maintenance; whole life costs can be determined.
What is an acceptable Level of Service?	By constantly measuring our performance against similar authorities and responding to our customers needs we can achieve an agreed level of service.

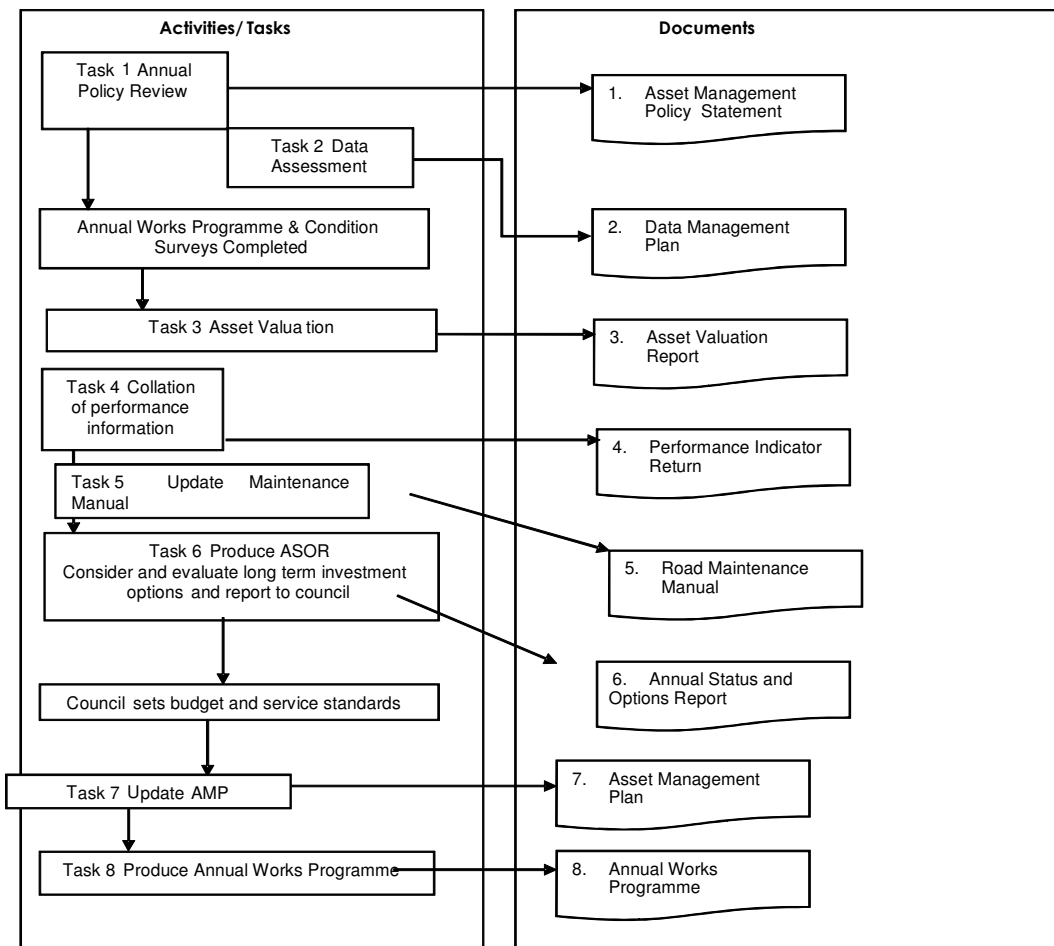
## Corporate Asset Management

The Council's Corporate Plan 2012/17, Taking Clackmannanshire Forward was approved by the Council in October 2012. The Corporate Plan incorporates all assets managed by the council:

- Buildings and Property
- Roads Infrastructure
- Council Housing
- Open Space
- Vehicle Fleet
- Information and Communications Technology (ICT)

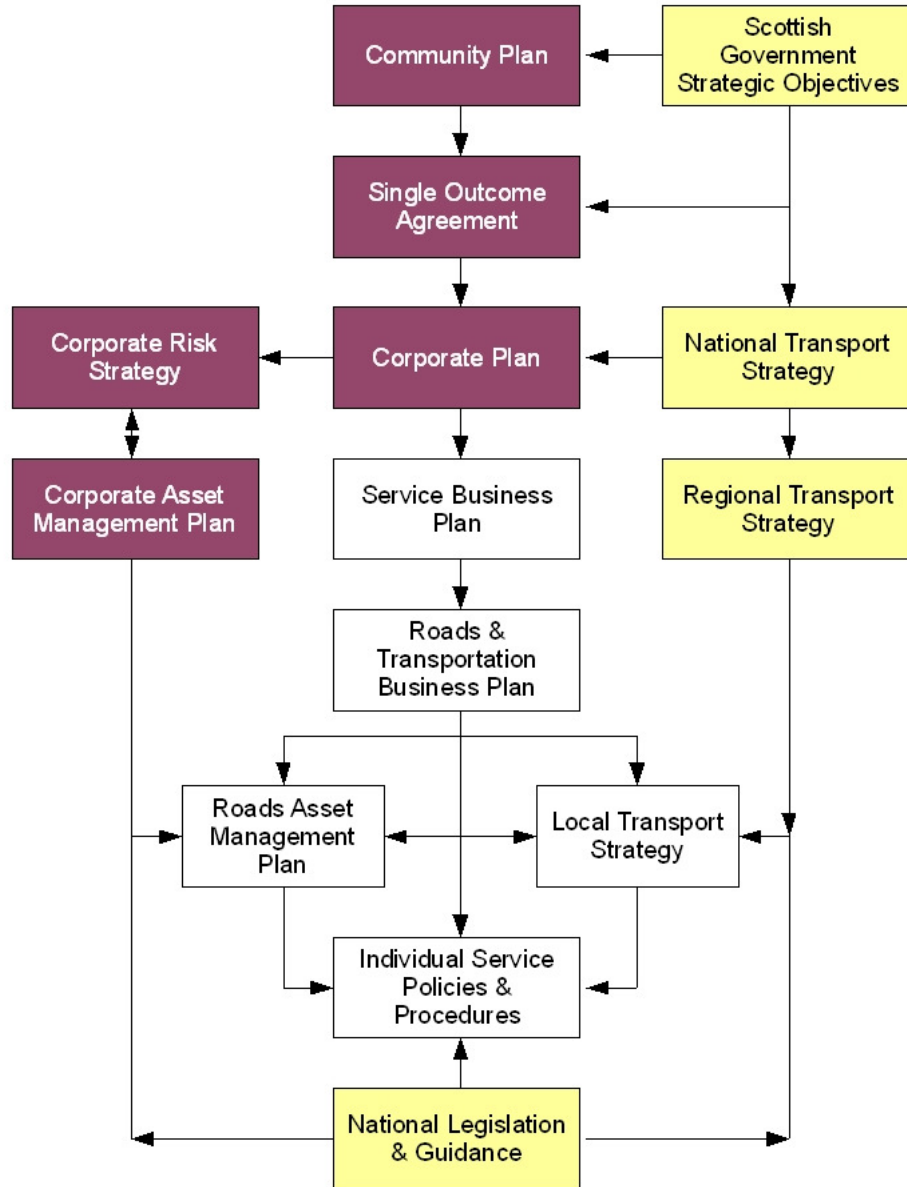
## Society of Chief Officers for Transportation in Scotland (SCOTS)

This plan has been developed in accordance with the SCOTS recommended asset management planning practices and is informed by the tasks and documents illustrated.



**The RAMP relates to other council plans as illustrated below:**

The RAMP is informed directly by the Local Transport Plan, the Service's Business Plan and associated asset management planning documents. Targets and strategies contained in the RAMP are used to develop annual works programmes based upon the council's roads budget allocation.



Relationship between RAMP & other Strategy documents

## 2. Roads Assets

### Roads Assets

The Council's Roads Assets covered by this plan are:

- Carriageways 289 km (plus 17 car parks)
- Footways, footpaths & cycleways 431 km
- Structures 43 Road Bridges, 10 Footbridges & 70 Culverts
- Street Lighting 8,819 Lighting Columns
- Traffic Management Systems 19 Signalised Junctions and Pedestrian Crossings
- Street Furniture Not yet fully quantified.

### Assets Not Covered

Assets not included in this plan but which will be included in a future revision to the plan:

- Road Drainage Infrastructure (data capture currently in progress)
- Retaining Walls
- Street Furniture (currently being recorded)

Some related assets are the responsibility of other Council Services. The Council owned Roads Assets not covered in this RAMP are:

- Cycleways (remote from the adopted carriageway)
- Footpaths and garage parking areas managed by Housing Association
- Public Rights of Way

Assets that have been specifically excluded from this plan are:

- Private Roads
- Private Bridges
- Council owned bridges, not on or crossing the road network.
- Assets relating to the other five key areas of Council asset ownership (e.g. Buildings and Property, Council Housing, Lands Services, Fleet Services and Information and Communications Technology)

## **Inventory Data**

This Plan is based upon currently available inventory data for Roads Assets, i.e. carriageway, footway, structures, street lighting, traffic signals and street furniture (as per CIPFA's Transport Infrastructure Assets guidance). For some minor asset components, inventory data is not currently held, however, an attempt has been made to incorporate these within this Plan using local estimates and sample surveys. Actions to improve asset data are outlined within the Roads Asset Data Management Plan.



### 3. Customer Expectations

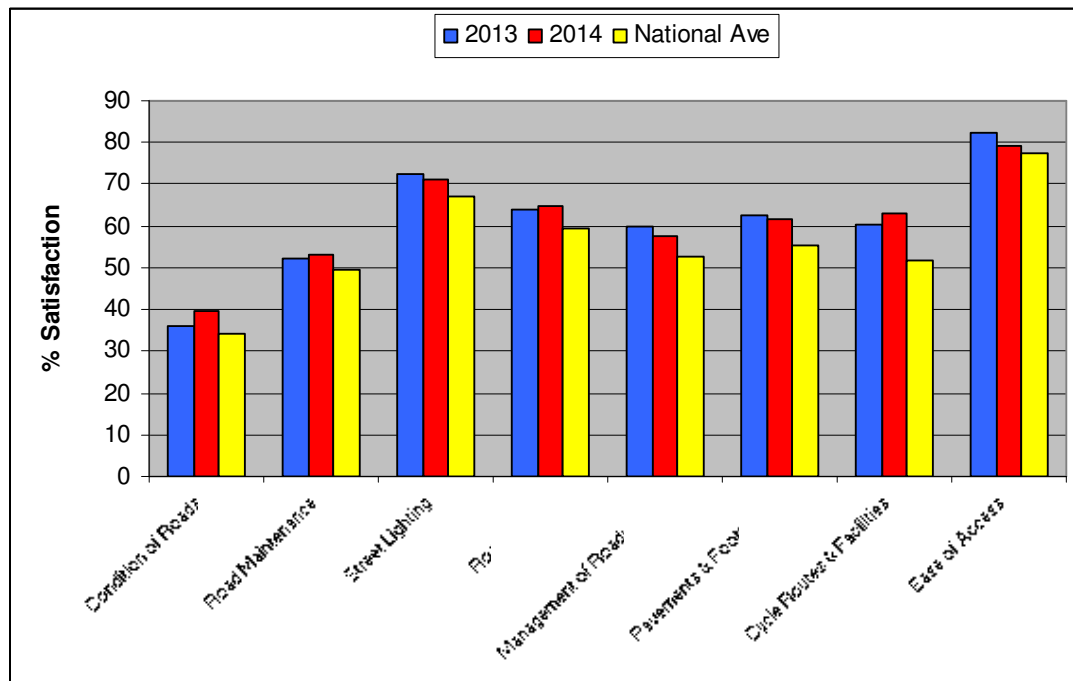
#### Customer Preferences

Clackmannanshire Council has been involved in both the 2013 and 2014 National Highways & Transportation Surveys (NTH) to understand the level of public satisfaction in regard to the Roads Assets. The NHT is an annual postal survey, undertaken by Ipsos Mori, where a minimum of 3,300 questionnaires are distributed in each local Authority area. Five Scottish Authorities took part in 2014, alongside 73 English Authorities. Full results are available at <http://nhtsurvey.econtrack.co.uk/>.

1. The 'Condition of Road Surfaces' has the lowest level of satisfaction (in Clackmannanshire) amongst the asset groups, with lighting and cycle routes receiving good ratings.
2. Not all asset groups are covered within the Survey.
3. Clackmannanshire scored the highest level of satisfaction in all indicators combined in 2013 and were ranked second overall in 2014.

A few of the findings from the survey are shown below.

1. The survey identifies some perceived issues in regard to the maintenance / condition of the carriageways. This reflects the Services own view that residential routes in particular are in need of improvement.
2. The public are generally not satisfied with the volume of potholes, although satisfaction with the speed and quality of repair being undertaken has recently improved.
3. The condition of footways, cycleways, bus shelters, the speed of repair to street lights and our efforts to minimise congestion are regarded as acceptable by the majority.



This information is currently used only as an Outcome Measure for Community & Regulatory Services. In future years it will also be used to reassess what Levels of Service are required to be provided to achieve the customer related priorities in the Corporate and Service Plans.

### Customer Contacts

Customer contacts in relation to the Roads Assets are recorded in the Council's customer services management system (CSM). A summary of the contacts received by category is shown below.

Year	C'way	F'way	Grit Bins	Winter Maintenance	Street Lighting	Total (all assets)
2006-07	359	265	55	29	1135	2271
2007-08	278	177	18	34	1307	2219
2008-09	320	174	101	57	936	1982
2009-10	322	210	377	330	736	2396
2010-11	440	155	417	801	935	3017
2011-12	542	157	104	36	1002	2145
2012-13	505	131	186	139	861	2158
2013-14	376	155	28	3	1217	2092
2014-15	368	144	82	58	1255	2281

Calls in relation to winter maintenance are obviously dependant of weather conditions, with the notable spike in volume in 2009/10 and 2010/11.

Many other requests are received by e-mail and passed to staff for action but these are not presently quantified. Procedures have been implemented in an attempt to ensure all requests are recorded within the Roads & Lighting Management Software.

## 4. Demands

### Asset Growth

The asset grows each year due to the adoption of new roads and construction of new road links. The national financial crisis over the last few years has reduced the speed of the accumulation of assets, however over the last 15 years the following additional assets have been adopted by the Council:

- Carriageways, over 30km
- Footways and footpaths, around 44km
- Street Lighting, around 1200 columns (since 2005).

New assets create the need for maintenance, management and associated funding in future years as these additional assets age. This is particularly relevant to street lighting as energy costs increase immediately.

### Traffic Growth

Traffic growth places increasing pressure on the road network due to the significant increase in the general volume of traffic and in particular, large commercial vehicles. Many of the council's roads were not designed to accommodate this level of traffic. This creates a growing need for investment in maintenance.

The Council's objectives through the Road Traffic Reduction Act are outlined within the Local Transport Strategy.

### Environmental Conditions

Pressure is also being placed upon the asset as a result of environmental conditions including:

- Severe winters: recent harsh winters (2010 and 2011) caused significant damage to road surfaces resulting from freeze / thaw action.
- Flooding: there are currently three main areas within Clackmannanshire that are prone to flooding which pose risk to property (Burnside Road in Menstrie, Cochrane Crescent / Grodwell Drive in Alva and Princess Crescent / The Ness in Dollar). Further there are a number of local distributor roads which are regularly affected by fluvial events (B908, C99 and C101). The Service's Flood Risk Management Plan Works Programme outlines the main issues and the planned mitigation measures.

## 5. Service Standards

This Plan is based upon delivering the service standards below. The Standards reflect the funding levels in section 6. They are the standards that users (customers) can expect from the Council's roads assets during the Plan period. Details of how the specific measures shown below are calculated are included in the road maintenance manual (or other appendices as directed).

Service	Measured By	Target Standard	
		Standard	Compliance
<b>Carriageways</b>			
Safety	Undertake routine safety inspections on Category 2 / 3(a) / 3(b) [Strategic Routes / Main Distributers / Secondary Distributers] at intervals of	3 month	100%
	Undertake routine safety inspections on Category 4(a) Link Road at intervals of	6 months	100%
	Undertake routine safety inspections on Category 4(b) Local Access roads at intervals of	Annually	100%*
	Category 1 defects shall be rectified or made safe within	24 hours	100%
	Category 2H defects shall be rectified or made safe within	7 Days	90%
	Category 2M defects shall be rectified or made safe within	28 Days	80%
	Category 2L defects shall be rectified or made safe within	2 Months	50%
Condition	Maintain the condition of all 'A' roads such that the percentage in a RED condition remains below	4%	N/A
	Maintain the condition of all 'A' roads such that the percentage in a RED and AMBER condition remains below	25%	N/A
	Maintain the condition of all 'B' roads such that the percentage in a RED condition remains below	4%	N/A
	Maintain the condition of all 'B' roads such that the percentage in a RED and AMBER condition remains below	30%	N/A

	Maintain the condition of all 'C' roads such that the percentage in a RED condition remains below	5%	N/A
	Maintain the condition of all 'C' roads such that the percentage in a RED and AMBER condition remains below	30%	N/A
	Maintain the condition of all 'U' roads such that the percentage in a RED condition remains below	10%	N/A
	Maintain the condition of all 'U' roads such that the percentage in a RED and AMBER condition remains below	40%	N/A

\*note - Compliance is with survey occurring during the period, not necessarily within 12 month timescale of previous survey.

Service	Measured By	Target Standard	
		Standard	Compliance
<b>Footways</b>			
Safety	Undertake routine safety inspections on Primary Walking Routes at intervals as described	3 month	90%
	Undertake routine safety inspections on Secondary Walking Routes and Link Footways at intervals as described	12 months	100%
	Undertake routine safety inspections on Local Area Footways at intervals as described [Footpaths every 2 years - alternating with condition surveys]	Annually	100%*
	Category 1 defects shall be rectified or made safe within	24 hours	100%
	Category 2H defects shall be rectified or made safe within	7 Days	90%
	Category 2M defects shall be rectified or made safe within	2 Months	50%
Condition	Maintain the condition of all footways such that the percentage meeting the condition rating level 4 remains below	2%	N/A
	Maintain the condition of all footways such that the percentage meeting the condition rating level 3 & 4 remains below	40%	N/A

Service	Measured By	Target Standard	
		Standard	Compliance
<b>Street Lighting</b>			
Safety	Electrical testing of all equipment shall be undertaken at a frequency of	6 years	100%
	Emergency faults shall be made safe or repaired within	2 hours	100%
Condition	The percentage of street light columns exceeding their ESL should be no more than	22%	N/A
	A non-emergency fault s shall be rectified within	7 work days	93%

Service	Measured By	Target Standard	
		Standard	Compliance
<b>Structures</b>			
Safety	Carry out General Inspections at a maximum frequency of X years (Excluding structures programmed for a Principal Inspection).	2 years	100%
	Carry out Principal Inspections at a maximum frequency of X years.	6 years	100%
	Attend emergency maintenance call outs within	2 hours	100%
	Attend non-emergency maintenance call outs within	3 days	95%
Condition	Maintain all Structures such that the BSCLav remains above	90%	N/A
	Maintain all Structures such that the BSCLcrit remains above	80%	N/A

Service	Measured By	Target Standard	
		Standard	Compliance
<b>Traffic Signals</b>			
Safety	Attendance at Major faults shall be within	4 hours	95%
	Attendance at Minor faults shall be within 'X' hours	48 hours	95%
	Undertake electrical inspections for electrical assets	6 years	100%
Condition	Initial repair of major faults shall be within	24 hours	100%
	Initial repair of minor faults shall be within	7 Days	100%



## 6. Financial Summary

### 6.1 Planned Funding

The service standard targets shown in section 5 are based upon the following predicted funding levels. In future years information and options supplied in the complimentary ASOR will allow decisions to be taken upon the level of funding provided. Any updates required to the RAMP will then be made.

Section 5 of this RAMP is based upon the assumption that the funding levels remain the same for the next 3 years. Figures exclude Capital Improvements (new infrastructure costs).

Asset	Works	Funding Required £k				Long Term Funding Assumed £k
		14/15	15/16	16/17	17/18	Y3-Y20 pa
Carriageways	Reactive	£600	£700	£700	£700	*Rev assuming 'normal' winter
	Planned	£1,679	£1,650	£1,650	£1,550	£1,550
Footways	Reactive	£210	£270	£270	£270	*Rev assuming 'normal' winter
	Planned	£317	£320	£320	£320	
Structures	Reactive	£23	£20	£20	£20	
	Planned	£23	£142	£96	£96	
Street Lighting	Energy Costs	£348	£350	£350	£350	To be calculated (spend to save)
	Reactive	£206	£200	£200	£200	
	Planned	£863	£335	£1,225	£1,125	£250 (after spend to save initiative completed)
Traffic Signals	Energy/ Communication Costs	Included in Street Lighting Energy Costs				
	Reactive	£11	£11	£11	£11	

Asset	Works	Funding Required £k				Long Term Funding Assumed £k
		14/15	15/16	16/17	17/18	Y3-Y20 pa
	Planned	£50	£50	£50	£50	
Street Furniture	Reactive	£21	£20	£20	£20	
	Planned	£42	£40	£40	£40	

## 6.2 Historical Expenditure

Historical expenditure invested in works on the Roads Asset is shown below (includes improvements):

Asset	Works	Historical Expenditure £'000			
		11/12	12/13	13/14	14/15
Carriageways	Capital	£879	£717	£1514	£1467
	Improvements	£50	£255	-	£126
	Revenue	£1,141	£785	£743	£583
Footways	Capital	£0	£100	£134	£318
	Improvements	£528	£155	£397	£534
	Revenue	£210	£74	£108	£68
Structures	Planned	0	£57	£119	£23
	Routine & Reactive	£73	£70	£15	£26
Street Lighting	Energy Costs	£339	£352	£344	£348
	Planned	£233	£201	£467	£863
	Routine & Reactive	£343	£398	£237	£206
Traffic Signals	Energy/Communication Costs	Included within Street Lighting			
	Routine, Planned & Reactive	£10	£11	£11	£10
	Improvements	£124	£86	£56	£151
Street Furniture	Routine, Planned & Reactive	£67	£67	£68	£63

Asset	Works	Historical Expenditure £'000			
		11/12	12/13	13/14	14/15
	Improvements	£173	£110	£97	£32
Operating Costs		£751	£448	£279	£731
Overheads		£754	£898	£968	£844
<b>Totals:</b>		<b>£5,675</b>	<b>£4,785</b>	<b>£5,558</b>	<b>£6,045</b>
<b>Totals Excluding Improvements:</b>		<b>£4,800</b>	<b>£4,179</b>	<b>£5,008</b>	<b>£5,199</b>

The above information shows that there has been an increase in expenditure on planned maintenance of the asset groups in 2014/15. The Council is committed to maintaining this level of investment over the next few years.

### 6.3 Asset Valuation

As at April 2015 the Road/Highway Asset is valued as follows:

Asset Type	Gross Replacement Cost (GRC) £0,000's	Depreciated Replacement Cost (DRC) £0,000's	Annualised Depreciation Cost (ADC) £0,000's	Comments
Carriageways	£350,273	£311,898	£3,018	
Footways & Cycleways	£53,900	£39,059	£662	
Structures	£50,952	£49,767	£160	
Street Lighting	£26,415	£14,622	£638	
Street Furniture	£2,234	£1,114	£109	
Traffic Management	£669	£443	£33	

Land	£174,239			Land valuation supplied centrally
<b>Total</b>	<b>£658,683</b>	<b>£416,902</b>	<b>£4,620</b>	

## 7. Asset Investment Strategies

The strategies in this section are developed using predictions of future condition over a longer term period. Work is ongoing to develop a detailed 20 year prediction model. The predictions will enable strategies to be created to look at the whole life cost of maintaining the asset. Using long term predictions means that decisions about funding levels can be taken with due consideration of the future maintenance funding liabilities that are being created. Investment strategies for the major asset types are summarised below. These strategies are designed to enable the service standards in section 5 to be delivered.

### Investment between Asset Types

Priority will normally be given to schemes where best value can be obtained from carrying out works on multiple asset groups at the same time. For example we will endeavour to tie any street lighting improvement schemes to footway improvements (where appropriate).

### Carriageways

The strategy for carriageways is to develop a more balanced approach in focussing investment on both preventative and planned maintenance in order to reduce the rate of deterioration of the asset.

Focus will be on increasing the amount of preventative surface treatments undertaken on the classified network in order to maintain these routes in a reasonable condition going forward. There is concern that the condition of the unclassified network is declining quickly therefore we will focus significant resources on carrying out resurfacing treatments on those routes most requiring treatment while continuing to trial preventative treatments on our unclassified routes.

**Over the next three years, spending on reactive maintenance will have to be reduced significantly if efficiencies are to be achieved (this policy is also required due to a likely year on year reduction in revenue funding). It is likely that this will generate significant numbers of customer complaints.** The Service will attempt to balance this by improving the coordination of reactive maintenance activities and carrying out treatments on a programmed basis.

Category	Strategy	Comments
Routine and Reactive Repair	It is unlikely that current intervention standards and	The strategy is based on the likely continual reduction in revenue funding. Repairs will be focused by defect priority rating therefore it is likely that the Service will

	response times can be maintained.	struggle to repair Cat 2L defects (except during planned maintenance schemes). Cat 2M defects response times may also be affected.				
Planned Maintenance Preventative	To increase the proportion of routes treated in the initial stages of deterioration and prevent further deterioration.	The strategy is predicted to require the following annual approximate lengths of surface treatment: <b>(Note - Projections from 2015 onwards taken from SCOTS Cost Projection Model but amended to factor in the current condition of the lower hierarchies).</b>				
		Road Class	2013/14	2014/15	2015/16	2016/17
		A	1.7km	0.9km	5.7km	6km
		B		3.0km	1.9km	3.2km
		C		0.3km		1.5km
U	1.9km	2.5km	2.8km	10km		
Planned Maintenance Corrective	Programme of resurfacing where the carriageway condition means a preventative treatment cannot be applied	The strategy is predicted to require the following annual approximate lengths of resurfacing:				
		Road Type	2013/14	2014/15	2015/16	2016/17
		A	1.7km	2.4km	4.0km	0.6km
		B	2.7km	0.7km	0.25km	0.25km
		C	0.1km	2.0km	1.2km	0.7km
U	3.6km	3.2km	4.3km	4.0km		

### Footways

The overarching strategy for footways is to continue upgrading the remainder of the flagged footways and ensure that the most heavily trafficked routes are maintained in a safe and reasonable condition.

Bituminous footways require ongoing investment in resurfacing works in order to bring them up to the target standards, prior to focussing on any significant preventative maintenance strategy. Significant strengthening works are required where constant overriding of the footway is causing severe damage and a higher standard of construction will reduce this. The strategy of increasing the standard of construction in areas affected by overriding is already in place.

Routine and reactive repairs **will be affected** by the reduction in revenue funding.

Category	Strategy	Comments															
Routine and Reactive Repair	It is unlikely that current intervention standards and response times can be maintained.	The strategy is based on the proposed reduction in revenue funding. Repairs will be focused by defect priority rating therefore it is likely that the Service will struggle to repair Cat 2L defects (except during planned maintenance schemes). Cat 2M defects response times may also be affected in future years.															
Planned Maintenance Corrective	Programme of resurfacing/renewal of footways.	The strategy is predicted to require the following annual approximate areas of footway renewals:															
		<table border="1"> <thead> <tr> <th>Footway Material</th> <th>2013/14</th> <th>2014/15</th> <th>2015/16</th> <th>2016/17</th> </tr> </thead> <tbody> <tr> <td>Flagged</td> <td>0.3km</td> <td>1.0km</td> <td>1.0km</td> <td>1.0km</td> </tr> <tr> <td>Bituminous</td> <td>2.0km</td> <td>0.5km</td> <td>1.0km</td> <td>1.0km</td> </tr> </tbody> </table>	Footway Material	2013/14	2014/15	2015/16	2016/17	Flagged	0.3km	1.0km	1.0km	1.0km	Bituminous	2.0km	0.5km	1.0km	1.0km
		Footway Material	2013/14	2014/15	2015/16	2016/17											
		Flagged	0.3km	1.0km	1.0km	1.0km											
Bituminous	2.0km	0.5km	1.0km	1.0km													

### Street Lighting

The aim of the maintenance strategy is to ensure that all street lights are operating 99% of the time and all columns are in a safe condition.

The structural testing programme enables columns in poor condition to be identified and replaced before an incident occurs.

The Council has developed a Carbon Management / Energy Reduction Plan which has highlighted major CO2 emission savings available through improved street lighting management. All street lights are to be considered in a programme of lantern replacement with new energy efficient (LED) lanterns.

Category	Strategy	Comments										
Routine and Reactive Repair	Repair of defect to current intervention standards and response times.	The strategy requires the deployment of 3 number works gangs on emergency and other non-emergency repairs.										
Planned Maintenance Preventative	Bulk lamp change	The strategy is predicted to require the approximate annual quantities of lamp replacements per year:										
		<table border="1"> <thead> <tr> <th></th> <th>2013/14</th> <th>2014/15</th> <th>2015/16</th> <th>2016/17</th> </tr> </thead> <tbody> <tr> <td>Lamps</td> <td>3500</td> <td>3500</td> <td>3200</td> <td>3200</td> </tr> </tbody> </table>		2013/14	2014/15	2015/16	2016/17	Lamps	3500	3500	3200	3200
			2013/14	2014/15	2015/16	2016/17						
Lamps	3500	3500	3200	3200								
Planned Maintenance Corrective	Programme of structural renewal	The strategy is predicted to require the approximate annual quantities of columns to be renewed:										
		<table border="1"> <thead> <tr> <th></th> <th>2013/14</th> <th>2014/15</th> <th>2015/16</th> <th>2016/17</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		2013/14	2014/15	2015/16	2016/17					
	2013/14	2014/15	2015/16	2016/17								

		Columns Renewals	100	100	100	100
Carbon / Energy Reduction	Programme of lantern replacement	The strategy is predicted to require the approximate annual quantities of lanterns to be replaced with LED units:				
			2013/14	2014/15	2015/16	2016/17
		Lantern Renewals	300	300	300	300

### Structures

The Council has identified 65 structures that require strengthening or major refurbishment works the strategy developed is to undertake all of these works over a 10 year period focussing initially on those structures that are considered to be a high priority. The nature of the schemes means that funding requirements will change each year and this has been allowed for in the funding allocation above.

Routine maintenance needs are different for each structure type these have been identified and estimated average amounts of annual work have been used to identify the works and funding requirement.

Category	Strategy	Comments				
Routine and Reactive Repair	Routine repair of defects to current intervention standards and response times.	The strategy requires the deployment of 5 work gangs/other agencies on emergency and other non-emergency repairs. (Bearing replacement, Waterproofing replacement, Painting, Joint repair/ replacement, Pointing etc.)				
Structure Type	Work Type	Total No of Structures Requiring Works	Works for 2013/14	Works for 2014/15	Works for 2015/16	Works for 2016/17
Road Bridges	Structure Strengthening Works	6	1	1	0	0
	Parapet Upgrade Works	13	0	2	1	0
Pedestrian Bridges	Structure Strengthening Works	2	1	0	0	1
	Parapet Upgrade	9	1	0	0	2



	Works					
	Support Upgrade Works	<b>0</b>	0	0	0	0
Culverts and Subways	Structure Strengthening Works	<b>13</b>	1	2	3	1
	Parapet Upgrade Works	<b>21</b>	2	2	3	2

### Traffic Signals

The aim of the traffic signals maintenance strategy is to ensure that all traffic signals are operating 99% of the time and all equipment remains in a safe condition. Installations are replaced only following obsolescence due to life expiry or external damage.

Where possible installations are replaced as a whole rather than replacing individual items of equipment.

Category	Strategy	Comments				
Routine and Reactive Repair	Repair of defect to current intervention standards and response times.	The strategy requires the deployment of 2 work gangs/other agencies on emergency repairs and other non-emergency repairs.				
Refurbishment of signalised junctions	Refurbishment of junction that have deteriorated or the equipment has become obsolete/unreliable	The strategy is predicted to require the approximate annual quantities of junctions to be renewed:				
			2013/14	2014/15	2015/16	2016/17
		Junction Renewals	1	0	1	0
Refurbishment of signalised crossings	Refurbishment of junction that have deteriorated or the equipment has become obsolete/unreliable	The strategy is predicted to require the approximate annual quantities of pedestrian crossings to be renewed:				
			2013/14	2014/15	2015/16	2016/17
		Pedestrian Crossing Renewals	0	1	0	2



## 8. Risks to the Plan

The risks that could prevent achievement of the standards specified in this plan (section 6) are:

<b>Plan Assumption</b>	<b>Risk</b>	<b>Action If Risk Occurs</b>
The plan is based upon winters being normal	Adverse weather will create higher levels of defects and deterioration than have been allowed for.	Budgets and predictions will be revised and this plan updated if abnormally harsh winters occur.
Available budgets have been assumed as shown in section 7	External pressures mean that government reduce the funding available for roads	Target service standards will be revised to affordable levels
Construction inflation will remain at level similar to the last 5 years.	Construction inflation will increase the cost of works (particularly oil costs as they affect the cost of road surfacing materials)	Target service standards will be revised to affordable levels.
Levels of defect and deterioration are based on current data which is limited for some assets (e.g. footways)	Assets deteriorate more rapidly than predicted and the investment required to meet targets is insufficient.	Split between planned and reactive maintenance budgets will be revised.
Resources are available to deliver the improvement actions	Pressures on resources mean that staff are not allocated to service improvement tasks such that the predicted benefits cannot be fully achieved	Target dates will be revised and reported.
Full Senior Management & Elected Members buy-in to the adopted strategy	Pressure from individual constituents resulting in members instructing unplanned / low priority works to be undertaken.	Target service standards will be revised to achievable levels

The risk has been evaluated in accordance with the Council's Corporate Risk Management Strategy. In addition to the risks above a Road Asset Risk Register is maintained recording the risks associated with each asset type. A review of this register is used annually when programmes of works are developed.

## References

- 1) Local Transport Plan
- 2) Asset Management Policy
- 3) Network Management Plan
- 4) Road Asset Management Manual
- 5) Annual Status and Options Report
- 6) Road Asset Data Management Plan
- 7) Service Improvement Action Plan