



North Tyneside Council

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Appendix



Highway Asset Management Plan 2012 to 2017

Annual Information Report

December 2015



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1) INTRODUCTION

The Council's Highway Asset Management Plan (HAMP) was formally adopted in December 2011 and was implemented on 1st April 2012. This sets out the Council's strategic approach to highway and infrastructure maintenance. In order to provide regular information about highways and infrastructure the HAMP contains a commitment to provide an annual information report to Cabinet.

The Council is currently operating within a challenging national financial climate. Customer expectations are high and these have to be balanced against available resources. The aim of this report is therefore to highlight issues and provide information to support corporate discussions about the maintenance of the highway network.

All highways and infrastructure services are delivered by Capita Property & Infrastructure under the Council's Technical Partnership Contract.

2) VALUE OF THE HIGHWAY ASSET

Under the Whole of Government Accounting procedure, all councils are required to submit an annual detailed valuation of their highways and infrastructure assets. The valuation returns are submitted in July. Each year, independent surveys of roads, footways and structures are undertaken to assess their condition. Unit rates are then applied to calculate a total value of the highway assets. The latest submission showed the following valuations:

Roads: £1008 million
Footways: £218 million
Bridges: £424 million

The total value of highway assets as of July 2015 is therefore **£1,650,000,000**

3) INVESTMENT IN THE HIGHWAY ASSET

The following tables provide a summary of the budgets that have been allocated to highway and infrastructure maintenance over the last 4 years. The focus is on repair budgets and does not include associated highway work such as gully cleansing.

**HIGHWAY MAINTENANCE**

| Budget | Description of Work | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
|------------------------------|---|---------|---------|---------|---------|
| Revenue | Day to day highway repairs (e.g. potholes), patching programme, small planned road and footpath improvement schemes, drainage repairs | £855K | £855k | £855K | £855K |
| Local Transport Plan Capital | Annual resurfacing programme, annual surface dressing and micro-asphalting programmes | £944k | £1.098k | £924K | £996K |
| Council Capital | Area Forum Road & Pavement Recovery Programme | £1m | £1m | - | - |
| Council Capital | Additional Council Capital investment in highway maintenance | - | £674K | £2m | £2m |
| Other Capital | Additional DfT budget | - | £326K | - | - |
| Other Capital | Additional DfT budget – National Pothole Fund | - | - | £324K | - |
| Other Capital | Additional DfT budget – Severe Weather Recovery Fund | - | - | £251K | - |
| TOTAL | | £2.799m | £3.953m | £4.354m | £3.851m |

BRIDGES AND INFRASTRUCTURE MAINTENANCE

| Budget | Description of Work | 2011/12 | 2012/13 | 2013/14 | 2014/15 |
|------------------------------|--|---------|---------|---------|---------|
| Revenue | Day to day bridge repairs, emergency work, graffiti bus partnership, minor planned schemes | £67k | £67k | £67k | £67k |
| Local Transport Plan Capital | Major structural schemes (e.g. bridge replacement / refurbishment) | £683k | £579k | £770k | £900k |

It can be seen that annual revenue budgets for highway maintenance and bridges / infrastructure have remained static for many years. Also, inflation in the construction sector has been disproportionately high and the cost of construction work is substantially higher than it was 5 years ago. Under the technical partnership with Capita, a business objective is to provide efficiency savings in frontline operations over the next few years to help manage this pressure. However, there is a finite limit to efficiency savings and as such the budget provision for this area will remain a challenge and be subject to regular review.



4) CURRENT MAINTENANCE PRIORITIES

HIGHWAY MAINTENANCE

The current priority is to protect and improve where possible the strategic road network (main classified roads). These are the roads that carry the vast majority of local and through traffic. Whilst the strategic highway network remains high priority, additional Council funding invested in recent years has allowed more resources to be allocated to dealing with estate roads. The improvement of estate roads remains a challenge and is almost wholly reliant on additional funding that the Council has provided through the Additional Highway Maintenance capital allocation. Most estate road resurfacing work is now undertaken using this funding stream. This funding has allowed the Council to re-allocate Local Transport Plan funding to undertake more footway improvement schemes when in previous years this has not been possible.

BRIDGES AND INFRASTRUCTURE

This area of work is undertaken mainly using Local Transport Plan (LTP) funding. Maintenance priorities for major work for the next 5 years are set out in the HAMP. At present the work can be accommodated provided future LTP allocations remain relatively constant. Other than major planned schemes, repair work is reactive due to a relatively modest revenue budget. The current programme is focussed and prioritised on locations and schemes which have been identified as requiring maintenance work or have been identified as requiring work in the next 12 – 18 months following statutory general and principal condition inspections of the Council's bridges and other infrastructure assets. These inspections are critical in ensuring that the Council's bridge stock remains in a safe and usable condition for all who use them.

5) SUMMARY OF WORK UNDERTAKEN DURING THE LAST 12 MONTHS

The I-Roads computer system is a specialised highway asset management program which supports the HAMP and has improved the way work can be planned. As such, the Highways Team was able to develop and finalise the full programme of highway improvement work in advance of the commencement of the current 2015/16 financial year allowing road resurfacing schemes to start at the earliest opportunity.



This included some difficult locations such as New York Road / Park Lane junction, Preston North Road outside Morrisons, Salters Lane and Great North Road. However, these schemes were well co-ordinated and carried out with very little disruption to the travelling public and feedback from customers has been very positive with no complaints received. In order to achieve better value for money we have continued to use alternative construction products including micro-asphalt surfacing treatments on the highway network. By the end of this financial year we will have completed the following works:

| Treatment Type | Area Covered in 14/15 | Area Covered in 15/16 | Difference (+/-) |
|------------------------------------|-------------------------------------|-------------------------------------|-------------------------|
| Micro Asphalt | 170,843m ² (13.15 miles) | 190,778m ² (14.67 miles) | +19,935m ² |
| Full Resurfacing | 81,360m ² (7.12 miles) | 44,627m ² | -36,733m ² |
| Patching Sites | 122 no. | 123 no | +1 no. |
| Footway Improvement Schemes | 102 no. | 105 no | +3 no. |

FOOTWAY IMPROVEMENT WORK

By the end of the current financial year the following footway refurbishment schemes will have been completed:

- Colwell Road, Shiremoor
- Grosvenor Drive, Whitley Bay
- Studley Villas, Forest hall.
- Teesdale Grove, Forest Hall
- Kingsley Avenue, Whitley Bay
- Station Road, Wallsend
- Coast Road, Wallsend
- Windsor Drive, Howdon
- Nicholson Terrace, Forest Hall
- Preston Avenue, North Shields
- Eden Place, Marden
- Malton Gdns, Howdon



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- Tanners Bank, North Shields
- Brunswick Green, Wideopen
- Burnside Ave, Annitsford
- Beverley Gardens, Cullercoats
- Beacon Drive, Wideopen
- Clovelly Gardens, Whitley Bay
- Kensington Gardens, Monkseaton
- Rocket Way, Forest Hall
- Blandford Avenue, Chirton Grange
- Preston Avenue, North Shields
- Dene Avenue, Tynemouth
- Dees Avenue, Wallsend
- Bracken Avenue, Battle Hill
- Eastbourne Gardens, Whitley Bay
- Bardsley Place, Longbenton
- Forest Avenue, Forest Hall
- Park Avenue, Shiremoor
- Fern Drive, Annitsford
- Elmsford Grove, Benton
- Seatonville Road, Monkseaton
- Wallsend Road, North Shields
- East View, Wideopen

Although these footway schemes have made tangible improvement to communities, they are addressing a very small percentage of the footway network and the approach to footway improvements remains mainly reactive.

BRIDGES AND INFRASTRUCTURE

The following work will have been completed by the end of 2015/16:

- Wallsend Road, North Shields - Bridge Refurbishment Construction Phase 1
- Station Road, Backworth – Road over rail protection scheme
- Abnormal load route review
- Inspection regime review



6) CONDITION OF CARRIAGEWAYS (ROAD SURFACES AND NOT FOOTWAYS)

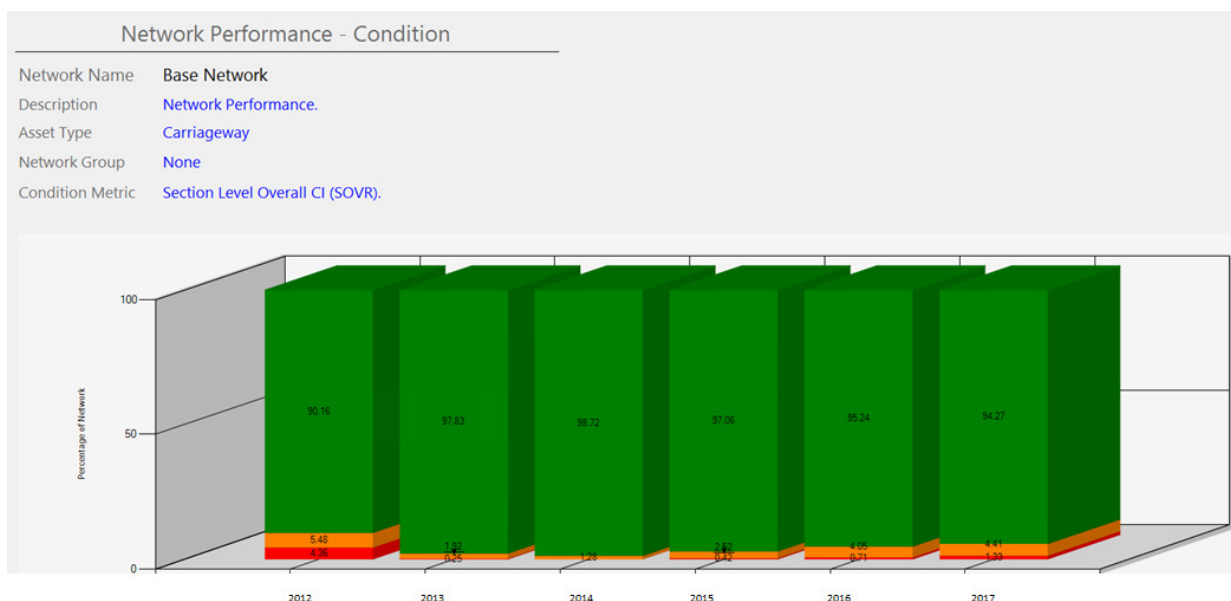
The Council's I-Roads System is an advanced computer application that has the ability to make accurate cost forecasts based on any number of time and budget scenarios. The system is based on whole life highway maintenance and is able to model the performance of the highway network taking into account the ideal maintenance regime i.e. undertaking preventative maintenance treatment at the most appropriate time to extend the life of the asset.

The system gives each road in North Tyneside a red, amber or green rating. Roads shown green have minor defects and require no structural maintenance. Roads shown as amber are in a condition where maintenance needs to be considered and these roads can be "saved" by undertaking preventative maintenance such as micro asphaltting which will avoid much costlier structural repairs further down the line. The roads shown red are structurally defective – they are beyond the point where they can be saved by preventative maintenance.

The following shows two alternative budget scenarios for the lifetime of the current HAMP (2012 to 2017). The purpose of this is to illustrate the positive impact of recent additional Council capital investment in highways.

Scenario 1 : Current Investment - LTP plus additional £2m Council contribution in the agreed Investment Programme

Graph showing condition of roads over the lifetime of the current HAMP (2012 -2017) with the agreed annual £2m investment on top of regular LTP funding





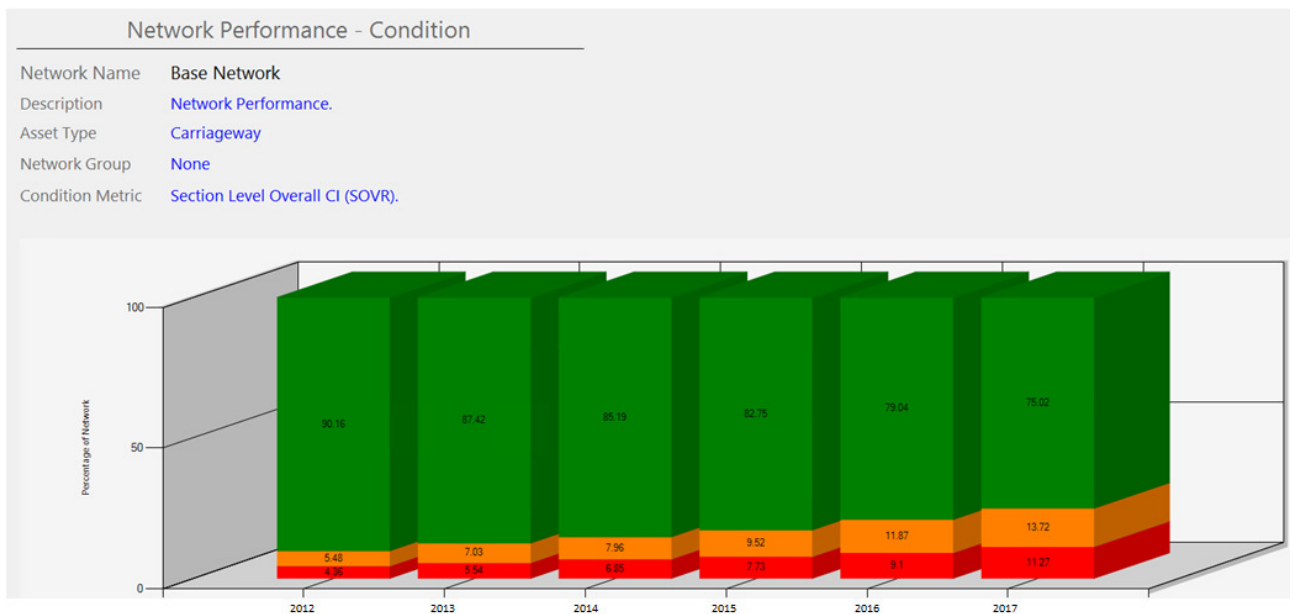
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The graph demonstrates that under current funding arrangements, the quality of the highway asset will be maintained at a manageable level and with a good proportion of roads in good condition by the end of the 2017 (more green roads).

Scenario 2 : Regular LTP funding only (£750k) without the additional agreed annual £2m Council contribution



The above graph shows that with LTP funding only (a yearly investment of around £750K) there would have been a deterioration of the highway asset with many more roads turning from green to amber and red. In short, the additional historic and planned investment has made a significant difference to the condition of North Tyneside's roads

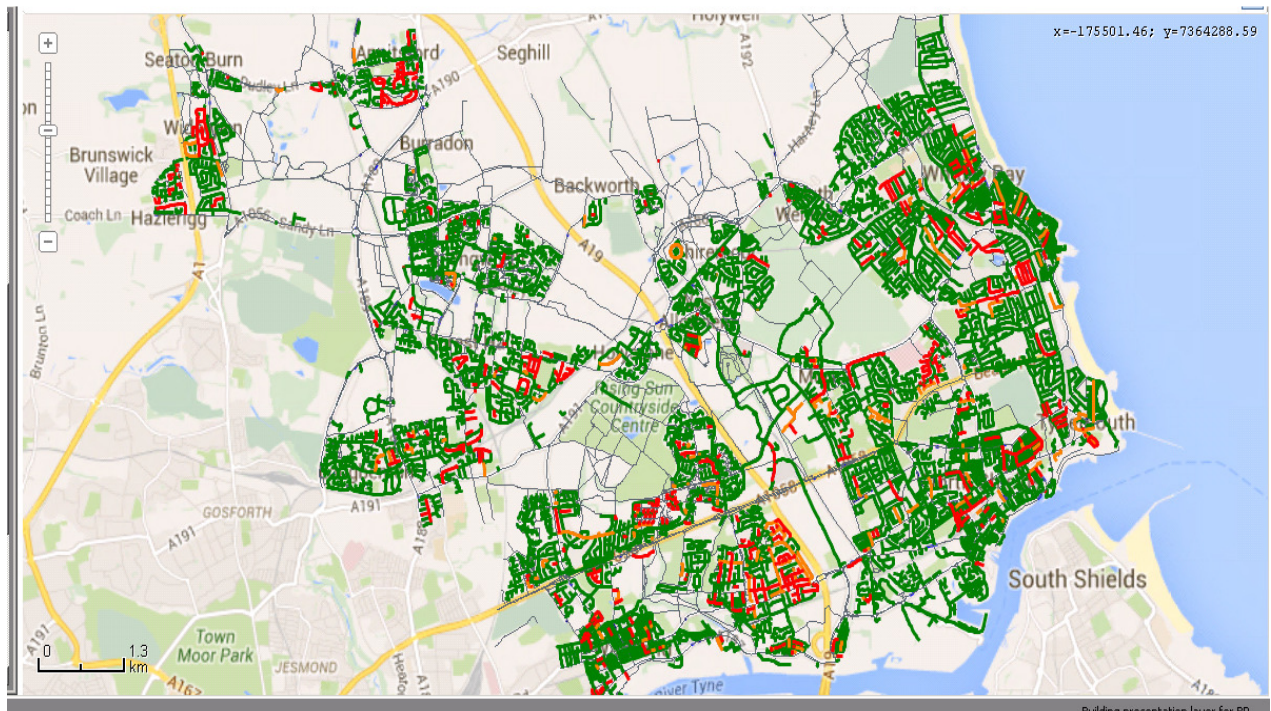


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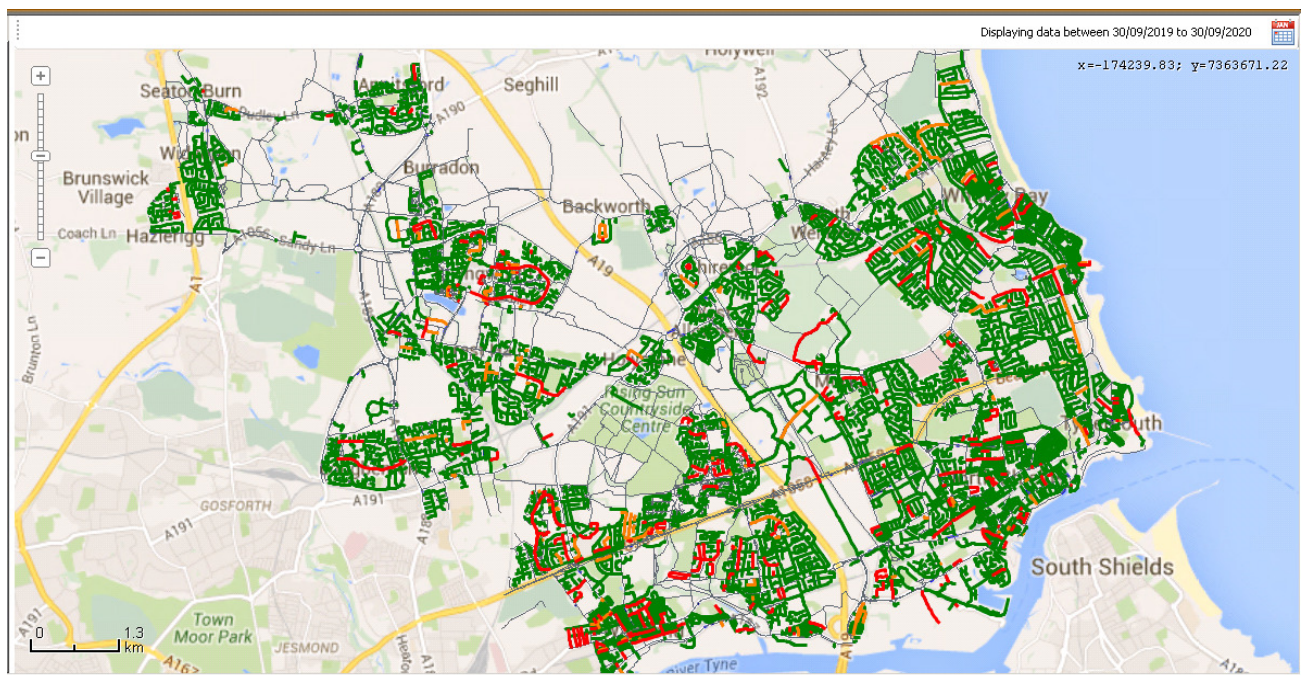
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Plan showing current condition of highway network



Plan showing projected condition of the highway network in circa 5 years time if current investment is continued



The above maps show that current performance is satisfactory.



7) CONDITION OF FOOTWAYS

We are currently gathering detailed condition data for the whole of the adopted footway network through the use of the nationally approved Footway Network Survey (FNS) methodology which is being undertaken by Capita. FNS involves a walked inspection which results in a detailed assessment of the footway network. At the time of publishing this report; approximately 90% of the footway network has been surveyed. The results from these surveys are detailed in the following table:

| Type of Footway | Description | Total length of asset | Length surveyed to date |
|-------------------------|---|-----------------------|-------------------------|
| Primary Walking Route | Busy urban shopping and business areas, and main pedestrian routes linking interchanges between different modes of transport, such as railways and bus stops etc. | 189 Km | 181 Km (96%) |
| Secondary Walking Route | Medium usage routes through local areas feeding primary routes, local shopping centres, large schools and industrial centres etc. | 63 Km | 61 Km (98%) |
| Link Footway | Linking local access footways through urban areas and busy rural footways. To include flagged Local Access Footways. | 57 Km | 56 Km (98%) |
| Local Access Footway | Footways associated with low usage, short estate roads to the main routes and <i>cul de sac</i> . | 1220 Km | 1098 Km (90%) |

From the surveys undertaken to date, the results show the following works required:

| Defect Category | Defect Description and Repair work Required | % of Network |
|----------------------------|--|--------------|
| No Defects | Footway surface is free of defects due to being new or nearly new. No repair work required | 0.58 |
| Aesthetic or minor defects | Minor defects that don't affect integrity of the footway construction such as small cracks. Minor localised repairs only to restore visual quality of footway. | 15.25 |
| Surface Defects | Common surface defects such as cracked paving stones, spalling areas of tarmac etc. More substantial repair required eg. lifting and renewal of flagstones, overlay with new tarmac surfacing course. | 66.76 |
| Structural Defects | Serious defects to whole of the footway construction. Full reconstruction of footway required | 17.41 |



It can be seen that, from the 95% of the network surveyed, around 67% is defective and around 17% is seriously defective. Given national funding constraints, it is not possible to undertake all these repairs with current revenue and capital budgets. At present, repair work is undertaken on a worst-first basis. These figures do suggest further investment in footways is needed. However, from a risk point of view the Council's highway inspection regime is currently robust enough to adequately defend public liability insurance claims and the repudiation rate remains high. In summary, the Council has the resources in place to maintain an effective highway claims defence.

8) HIGHWAY MAINTENANCE BACKLOG

The I-Roads system can also be used to calculate the current backlog of highway repairs i.e. the one-off cost of rectifying all highway defects and bringing the network back to an "all green" condition.

The estimated current carriageway repairs backlog is **£20.7 million**. This is a decrease of £300K compared to the figure from 12 months ago which was £21 million. This decrease is a modest but notable achievement. It is the first time within the lifetime of the HAMP that the backlog has fallen. This is due to the additional highways capital investment made in recent years and the increasing use of preventative maintenance treatments which have been funded through this investment. If the Council was solely reliant on LTP funding then the backlog would be substantially higher and would rapidly increase from year to year.

Detailed data in relation to the calculation of the footpath network maintenance backlog is still being gathered and developed. The early indications are that the footpath maintenance backlog will be a similar figure to that of carriageways.

9) CUSTOMER ENGAGEMENT

In recent years, corporate resident satisfaction surveys have shown that a well maintained highway network is very important to our residents and customer satisfaction in this area has proved to be a challenge. The Highway Asset Management Plan (HAMP) recognises that improvement to the network will always be constrained by available resources and so there is a need to prioritise.

In 2012 the Highway Maintenance Team undertook a bespoke a postcard customer survey. This has assisted greatly in understanding the views of customers and how they believe spending should be prioritised. The results of this survey analysis are not shown in this report but can be viewed if requested.



The intention is to repeat the postcard survey in 2016. This will determine whether customers believe there has been any improvement in the condition of highways and will allow the Highways Team to continue to set maintenance priorities in line with customer needs.

The Highway Maintenance Team soon intends to introduce a customer feedback card system to gauge public satisfaction with resurfacing work and other schemes. These will be posted into adjacent properties on completion of schemes.

10) PERFORMANCE

The Council gathers performance data in relation to the condition of its main classified roads. Independent condition surveys are undertaken and the data is used to calculate a performance indicator figure. The results for recent years are shown in the table below (lower the figure the better). The latest data gathered during the 2014/15 year has been analysed and performance figures for the last 3 years are shown below.

| Performance Indicator | Target | 2012/2013 | 2013/14 | 2014/15 |
|--|--------|-----------|---------|---------|
| Percentage of A class roads that should be considered for structural maintenance | 5% | 4% | 3% | 3% |
| Percentage of B and C class roads that should be considered for structural maintenance | 5% | 3% | 4% | 5% |

The above figures represent good performance when compared nationally. The latest figure for A class roads (3%) represents good performance and this is expected to continue as long as current funding levels are maintained. This is due to the continued use of lower cost preventative maintenance treatments such as micro-asphalt and surface dressing that have allowed more work to be completed on the ground. The increased level of preventative treatment has been enabled through the continuous additional Council capital funding which this year has resulted in a substantial slow-down in the deterioration of the network. Performance for B and C class roads has fallen slightly but is still good and is within the target set out in the HAMP which is to achieve 5% or below from 2012 to 2017.



As part of the ongoing partnership between North Tyneside Council and Capita, a suite of key performance indicators has been produced to ensure that the Council continues to address its statutory duties. These KPIs are detailed below:

- *Percentage of routine safety inspections completed within the required time limits by the Council's street care officers – this has consistently achieved 100% over the last 12 months*
- *Percentage of hazardous highway defects made safe within 24hours – this has consistently achieved 100% over the last 12 months.*
- *Percentage of non-urgent highway defects completed within 10 working days – this has averaged at 98 – 99% over the last 12 months, above the expected rate of 96%.*
- *A new key performance indicator which will monitor the quality of highway repairs is being developed and will be formally introduced in April 2016.*

These figures represent good performance from the Partnership with regard to undertaking the Council's statutory maintenance duties and undertaking repairs in a safe and timely manner, reducing the risk of any harm occurring to users of the highway network.

11) OTHER INFORMATION

This section of the report outlines items of general interest in relation to highway maintenance services.

SERVICE IMPROVEMENTS

The following are some examples of the type of service improvement work that the Technical Partnership has undertaken in the last 12 months:

- A street works permitting scheme has been introduced and is now working well.
- Improved ICT with regards to highway maintenance and pavement management systems.
- In response to the Elected Mayor's policy direction, an order has been placed for 2 new gully cleansing vehicles along with a new computerised management system.



The following are some examples of further work we intend to undertake over the next 12 months:

- Improvements to the gully cleansing service requested by the Elected Mayor based on public feedback. We will do this through use of new vehicles and ICT.
- Looking at more permanent solutions to pothole repairs and emergency call-outs.
- Further improvements to ICT systems, in particular bridge and other infrastructure asset management systems and incorporating into I-Roads.
- Introduction of hand-held data management equipment to frontline operatives to improve efficiencies in working. (Removal of paper job cards with works being submitted electronically to operatives)

The Technical Partnership will look to achieve further efficiency savings throughout the life of the partnership by:

- Better management of the supply chain
- More productive use of plant and labour
- Securing more favourable unit rates for construction work

These efficiency savings are likely to increase the amount of work that can be done on the ground and stretch available resources further.

HIGHWAYS MAINTENANCE EFFICIENCY PROGRAMME

In 2011 the Government launched its Highways Maintenance Efficiency Programme (HMEP). The HMEP is a sector-led initiative which aims to maximise efficiency in highway maintenance through collaboration and development of best practice. The Council is continuing to support this initiative and is acting on the associated guidance and recommendations.

NORTH EAST HIGHWAYS ALLIANCE

The North East Highways Alliance brings together the 12 north east highway authorities and the aim is to work collaboratively in order to share best practice and improve efficiency. North Tyneside's Highways & Infrastructure Manager represents the Council at board level. There are a number of theme groups that report to the Board including the Knowledge Sharing Group. This is supported by a new website called the Knowledge Hub which allows group members to share information. Since its inception, some good work has been undertaken in relation to highway



maintenance including the development of common materials specifications and joint procurement initiatives.

HIGHWAY INSPECTION REGIME

Following on from improvements to the Council's highway inspection regime in 2013, the Highways Team has continued its successful work in supporting the defence of third party insurance claims and the repudiation rate is currently around 93%. Every street in the Borough receives a certain number of routine highway inspections per year at which point any localised necessary safety repairs are attended to.

CHANGES TO NATIONAL CODE OF PRACTICE

The national code of practice that provides guidance on highway inspections is currently being revised and changes will come into force within the next 18 months. Councils will be advised to take a more risk based approach to highway inspections. For example, targeting inspections around areas of high footfall rather than routinely following a set frequency based on the type of road. A working group has been set up to look at what changes North Tyneside Council may make to its current inspection regime and the impact. Further details will be reported in due course.

12) CONCLUSIONS

The following conclusions can be drawn from this report:

- The highway network is the most valuable asset in the Council's ownership. The current total value of highway assets is **£1.65 billion**.
- The additional capital investment in highway maintenance is continuing to allow the Council to maintain a steady state across the entire highway network and manage the repair backlog.
- Generally, the highway network is in a serviceable condition and the Council is able to discharge its statutory maintenance responsibilities.
- If investment levels for highways maintenance fall then the condition of highway network will deteriorate and do so at an ever increasing rate. This will occur even when a perfect theoretical long term asset management strategy is applied i.e. full use of whole life planning, best value and preventative maintenance regimes.
- The Council is performing well in relation to the maintenance of classified main roads. This would indicate that the increased use of preventative maintenance treatments and a relatively healthy financial investment in main roads is producing the expected benefits.



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- The Council is performing less well in the maintenance of estate roads and footpaths. This is reflected in the maintenance backlog but the situation will improve as we continue to roll out large swathes of micro-asphalting work.
- Continued customer engagement is providing better intelligence on what the public want us to focus our highway maintenance efforts on. These include continuing our improvements of residential and strategic roads and footways, improving the gully cleaning service and addressing issues of parking on footpaths.
- Bridge maintenance is currently under control and can be managed within existing LTP budgets
- Imminent changes to the Code of Practice for Highway Inspections constitutes a potential risk to the Council. The implications of introducing a revised inspection regime are currently being looked at and will be known in due course.