

# APPENDIX



# Highway Asset Management Plan (HAMP) 2017 to 2032 Annual Information Report October 2020

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## 1) EXECUTIVE SUMMARY

The Highway Asset Management Plan (HAMP) sets out the Council's strategic approach to highway and infrastructure maintenance. In order to provide regular information about the highway and infrastructure, the HAMP contains a commitment to provide an annual information report to Cabinet. The report provides information on work undertaken within the last 12 months (October 2019 to September 2020), future planned activities and other items of general interest.

The report shows that within the last 12 months:

- The backlog of highway repairs remains under control
- Performance is excellent with KPIs being met
- Highway asset work programmes have been completed successfully
- The Council again achieved Band 3 in the DfT Self-Assessment to ensure that it received its full budget allocation under the Incentive Fund
- An additional £400K of housing footway improvements were successfully completed
- The implementation of a new 'risk-based' approach to gully cleaning in North Tyneside has been a success
- The North Tyneside Council/Capita partnership successfully continued to meet its statutory duties for highways as required by the Department for Transport during the Covid-19 lockdown period and services have since recovered to business as usual.

We are currently operating within a challenging national financial climate and in recent years the investment in highway infrastructure and its performance has been increasingly under the spotlight. Asset management has been widely accepted by central and local government as a means to deliver a more efficient and effective approach to management of the highway infrastructure assets through long term planning.

All highway and infrastructure services are delivered by Capita Property and Infrastructure under the North Tyneside Technical Services Partnership arrangements.

On 24 March 2020, following the Government's decision to introduce lockdown restrictions, Capita, in consultation with North Tyneside Council, made the decision to suspend undertaking highway safety inspections and repairs with immediate effect to ensure that it complied with the guidance released by Government.

Following this initial decision a review of the guidance was quickly undertaken by the Technical Services Partnership and a number of risk assessments were undertaken to determine what services would still need to continue during the lockdown to comply with statutory requirements. The first service to have a partial resumption was highway safety inspections and emergency repairs. During this period, senior Capita officers met daily with council officers to ensure that highways decisions were strictly in line

with Government guidance and emergency response decisions being taken by the Authority.

The Technical Services Partnership continued to monitor guidance issued by Government and review what services could be returned with risk assessments and method statements being put in place to protect staff and the public. The Highway Service resumed full operations on the 24 June 2020. Further details on how the Highway Maintenance Service was managed during the coronavirus pandemic are outlined in section 13 of this report.

## **2) THE IMPORTANCE OF HIGHWAY INFRASTRUCTURE**

The national highway network comprises the strategic network of motorways and trunk roads and both major and minor local roads. It totals some 235,000 miles and includes assets such as carriageways, footways, cycle-tracks, structures, highway lighting, street furniture, traffic management systems and similar highway infrastructure.

The local highway network is the responsibility of local highway authorities. The local highway network is the largest, most valuable and most visible infrastructure asset for which the Council is responsible. Well maintained and accessible highway infrastructure is vital and fundamental to the economic, social and environmental wellbeing of the communities of North Tyneside. The aim to maintain a good highway network is important to delivering the Our North Tyneside Council Plan and the Mayor and Cabinet's commitment to making North Tyneside a great place to live, work and visit.

North Tyneside Council is responsible for maintenance of the following assets:

Asset Item	Quantity (Approx.)	Asset Item	Quantity (approx.)
<b>Carriageway (Km)</b>		<b>Street Lighting (managed separately through PFI)</b>	
Principal Roads	105.18 Km	Lighting Columns	29418
B Roads	37.75 Km	Illuminated Signs	998
C Roads	34.29 Km	High Mast Columns	15
Unclassified Roads	684.73 Km	Pole Mounted Lamps	20
Back Lanes	37.2 Km	Wall Mounted Lamps	40
<b>Total Network Length</b>	<b>899.15 Km</b>	Subway Lights	243
		Belisha Beacons	265
Total Road Gullies (approx.)	34,039	Feeder Pillars	418
Total Footways	1239.01 Km		
Total Dedicated Cycleways	6 km		
Total Public Rights of Way	143.74 Km		
<b>Bridges and other Structures (Number)</b>			
Road Bridges	46		
Retaining Walls	73		
Footbridges (inc PROW)	46		
Bridleway Underbridge	1		
Bridleway Overbridge	1		
Culvert	41		
Subway	25		
Tunnel	1		
Underpass	1		
<b>Total</b>	<b>235</b>		

### **3) CURRENT MAINTENANCE PRIORITIES**

#### **3.1 Highway Maintenance**

As in recent previous years, in the last 12 months the priority has been 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 a high priority, additional Council funding has continued to be invested allowing more resources to be allocated to dealing with the condition of residential roads. The improvement of residential roads remains a challenge, but they have benefitted from the 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.

We have also continued to focus on improving the condition of our footways. In accordance with meeting the priority of the Elected Mayor, following feedback from North Tyneside residents, additional monies have continued to be invested by the Authority in footways. A programme of improvement works has been implemented focusing on areas such as town centres, key urban routes and residential areas where older flagged constructed footways, which are susceptible to damage, are replaced with lower maintenance bituminous construction.

#### **3.2 Bridges and Infrastructure**

This area of work is undertaken mainly using LTP funding. Maintenance priorities for major work for the next 6 years are set out in the HAMP and its supporting framework documents including Highway Structures – Risk-based Principal Inspections. At present the work can be accommodated provided future LTP allocations remain relatively constant. However, a number of structures have been identified which will require attention within the next 6 years. This may begin to put additional pressure on budgets.

Day to day reactive repairs are undertaken using a revenue budget which is managed by Capita. 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 Authority'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.

### **4) SUMMARY OF WORK UNDERTAKEN DURING THE LAST 12 MONTHS**

During the last quarter of the 2019/20 financial year, the highway maintenance schemes for the current 2020/21 financial year were finalised in accordance with our works prioritisation procedures and in consultation with the lead Cabinet Member and the

Investment Programme Board. The following is a summary of the work that has been done to date and what will be achieved by the end of the current financial year.

#### 4.1 Carriageway Improvement Works

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:

#### Road Repair Work Undertaken in North Tyneside in 2020/21 (and comparison of previous years)

<b>Treatment Type</b>	<b>Area Covered in 17/18</b>	<b>Area Covered in 18/19</b>	<b>Area Covered in 19/20</b>	<b>Area Covered in 20/21</b>
<b>Micro Asphalt</b>	69,422m <sup>2</sup> (5.34 miles)	19,813m <sup>2</sup> (1.65 miles)	46,425m <sup>2</sup> (4.39 miles)	41,831m <sup>2</sup> (3.96 miles)
<b>Full Resurfacing</b>	87,124m <sup>2</sup> (6.70 miles)	84,690m <sup>2</sup> (6.51 miles)	94,320m <sup>2</sup> (7.94 miles)	62,154m <sup>2</sup> (5.25 miles)
<b>Patching Sites</b>	60 No.	46 no.	52 no.	47 no.
<b>Footway Improvement Schemes</b>	112 No.	47 No.	38 No.	50 No.*

\* It can be seen that for 20/21 financial year, although investment has increased, there is a reduction in the number of footway schemes compared to 17/18. This is because previously we have carried out small footway schemes which have been in localised areas within streets resulting in a relatively high number of schemes. In 20/21 there are fewer schemes, but the work has incorporated full streets rather than localised areas. This has resulted in higher quality and more noticeable improvements and maintains our commitment of increased investment in footway improvements.

Structural resurfacing is carried out when the road surface or its underlying layers have deteriorated to the point that they need to be replaced. The damaged layers are removed and new material is laid. Micro-asphalt, which is a cold-applied treatment which seals the road surface to prevent the intrusion of water, a major cause of deterioration.

The following micro asphalt resurfacing works have been completed within the current financial year, all in accordance with the agreed programme:

Amberley Chase, <b>Killingworth</b>	Kirklands, <b>Camperdown</b>
Baird Avenue Link Rd, <b>Riverside</b>	Lesbury Street, <b>Riverside</b>
Baird Avenue, <b>Riverside</b>	Lynholm Grove, <b>Benton</b>
Barrasford Street, <b>Riverside</b>	Matfen Gardens, <b>Howdon</b>
Brinkburn Street, <b>Riverside</b>	Mead Crescent, <b>Benton</b>
Bywell Grove, <b>Valley</b>	Meldon Street, <b>Riverside</b>
Chatton Street, <b>Riverside</b>	Mitford Street, <b>Riverside</b>
Coburn Close, <b>Camperdown</b>	North View, <b>Wallsend</b>

Crumstone Court, <b>Killingworth</b>	Park Gardens, <b>Whitley Bay</b>
Eastwood Close, <b>Camperdown</b>	Park Lane, <b>Valley</b>
Greenlea, <b>Collingwood</b>	Redford Place, <b>Camperdown</b>
Holly Avenue, <b>Whitley Bay</b>	Springfield Gardens, <b>Northumberland</b>
Ilfracombe Gdns Lane, <b>Whitley Bay</b>	Verne Road, <b>Chirton</b>

By the end of the financial year the following structural resurfacing works (full renewal of the road surface) will also have been completed:

Albury Park Rd/Birtley Ave, <b>Tynemouth</b>	Grange Avenue, <b>Valley</b>
Amble Place, <b>Benton</b>	Great North Road, <b>Weetslade</b>
Archer Street, <b>Howdon</b>	Howard Street, <b>Tynemouth</b>
Backworth Lane, <b>Valley</b>	Marden Road South, <b>Whitley Bay</b>
Battle Hill Drive, <b>Battle Hill</b>	Monkseaton Drive, <b>Monkseaton North</b>
Blanchland Terrace, <b>Preston</b>	Park Terrace, <b>Wallsend</b>
Citadel West, <b>Camperdown</b>	Park View, <b>Wallsend</b>
Coniston Road, <b>Howdon</b>	Ridley Avenue, <b>Howdon</b>
Derwent Gardens, <b>Howdon</b>	Southgate, <b>Camperdown</b>
Devonshire Gardens, <b>Northumberland</b>	St Peters Road South, <b>Howdon</b>
Earsdon Road, <b>Monkseaton South</b>	The Byways, The Roundways & Elmsford Grove, <b>Longbenton</b>
Earsdon View, <b>Valley</b>	Thropton Place, <b>Collingwood</b>
Eastbourne Gardens, <b>Monkseaton North</b>	Wilson Terrace, <b>Benton</b>
Eldon Street, <b>Riverside</b>	Windsor Gardens, <b>Preston</b>
Evesham Avenue, <b>Monkseaton North</b>	

#### 4.2 Footway Improvement Work

By the end of the current financial year the following footway refurbishment schemes will have been completed, all in accordance with the agreed programme:

<b>FOOTWAY REVENUE BUDGET</b>	
Ashkirk, <b>Weetslade</b>	Dene Crescent, <b>Wallsend</b>
Amble Avenue, <b>Whitley Bay</b>	Dipton Road, <b>St. Mary's</b>
<b>FOOTWAY IMPROVEMENTS CAPITAL BUDGET</b>	
Agincourt, <b>Camperdown</b>	Bannockburn, <b>Camperdown</b>
Bamburgh Road, <b>Killingworth</b>	Benton Lane, <b>Longbenton</b>
Blenheim, <b>Camperdown</b>	Burwood Road, <b>Collingwood</b>
Canberra Avenue, <b>Monkseaton South</b>	Hailsham Avenue, <b>Longbenton</b>
Hall Drive, <b>Camperdown</b>	Links Avenue, <b>St. Mary's</b>
Middle Green, <b>Monkseaton South</b>	Mills Gardens, <b>Wallsend</b>
Sycamore Avenue, <b>Monkseaton South</b>	Thorneyburn Avenue, <b>St. Mary's</b>
Wallington Avenue, <b>Cullercoats</b>	Whitley Road, <b>Whitley Bay</b>

The following Housing Renewal schemes have been identified to be completed in 2020/21 and 2021/22, all in accordance with capital budgets identified for the improvement of Housing assets:

**HRA FOOTWAY IMPROVEMENTS CAPITAL BUDGET**

Brandon Avenue, <b>Shiremoor</b>	Bywell Grove, <b>Shiremoor</b>
Chesters Avenue, <b>Longbenton</b>	Eden Street, <b>Wallsend</b>
Elizabeth Drive, <b>Palmersville</b>	Drury Lane, <b>North Shields</b>
Stoneleigh Avenue, <b>Longbenton</b>	Kirkwood, <b>Burradon</b>
Garth 24, <b>Killingworth</b>	Buxton Close, <b>Wallsend</b>
Belford Close, <b>Wallsend</b>	Bourtree Close, <b>Wallsend</b>
Phoenix Chase, <b>North Shields</b>	Kenton Road, <b>North Shields</b>
Edenbridge Crescent, <b>Benton</b>	Tenbury Crescent, <b>Benton</b>
Coquet Terrace, <b>Dudley</b>	Bamburgh Crescent, <b>Shiremoor</b>
Bowness Avenue, <b>Wallsend</b>	Brandon Avenue, <b>Shiremoor</b>
Halton Drive, <b>Wideopen</b>	Knotts Flats, <b>North Shields</b>
Margaret Cottages,	River View, <b>Tynemouth</b>
Sams Court, <b>Dudley</b>	Shields Road, <b>Whitley Bay</b>
St. Aidans Square, <b>Holystone</b>	Trinity Court, <b>North Shields</b>
Valehead, <b>Whitley Bay</b>	Palm Court, <b>Palmersville</b>

### 4.3 Drainage Works

We have two gully wagons, one 18 tonne and the other 26 tonnes, which operate across the borough carrying out gully maintenance and dealing with reported flooding problems on the highway. We operate our gully services on a system from KaarbonTech called Gully Smart. Gully Smart provides us with a sophisticated recording system for collecting information on site to inform future programmes of work.

Gully Smart can record the type of asset i.e. gully, linear kerb drainage or manhole, whether it is blocked or broken and most importantly the silt level. The silt level is the key element required to generate an intelligence-led maintenance programme and with this information we are developing a risk-based gully cleaning strategy for the borough. Since we implemented the Gully Smart system approximately 44,000 assets have been cleaned and recorded on 2 occasions in the last 3 years of operation.

Historically, the approach in North Tyneside to repairing and improving highway drainage assets has been cyclic, rather than needs-based. We have redesigned the service to follow a risk-based approach, in accordance with the 'Well-Managed Highway Infrastructure: A Code of Practice'. This will ensure better use of resources, a more effective gully cleansing regime and the controlled management of surface water to allow safe passage and promote network resilience.

In July 2020, we began the implementation of the new 'risk-based' approach to gully cleaning in North Tyneside. Up to March 2021, the gully cleaning service will clean all gullies that have met the following criteria: -

- Recorded silt levels from last 2 cleaning cycles of 50%
- Recorded silt levels from last 2 cleaning cycles of 75%
- Recorded silt levels from last 2 cleaning cycles of 100%
- All gullies located in areas identified by the Environment Agency which are susceptible to flooding from a 1 in 30 year flood event

All gullies on our routine high speed road closures (which are undertaken 4 times per year) will be cleaned twice per year.

The following is a summary of the ongoing activities associated with improving the highway drainage service:

- Continued identification of assets which require more frequent cleansing and assets which require less frequent cleansing
- Maintenance of the highway drainage asset to a condition in which it remains functional for draining the highway
- Design, construction and maintenance of highway drainage assets to meet current and future needs in a changing environment while making effective use of limited budgets
- Prioritisation of our maintenance activities based on the areas of the network in most need of maintenance in line with available budgets.
- Identification and prioritisation of linear drainage assets ((kerb drainage (Beaney Blocks), ACO drains, safety channels etc) which require cleaning and development of cleaning regimes for these assets

In addition to gully cleansing and asset collection, by the end of the current financial year the following drainage schemes will have been completed, all in accordance with the agreed programme:

- Camera surveys
  - Bradford Avenue, Battle Hill
  - Front Street, Benton
  - Charles Avenue, Forest Hall
  - Crescent Way North, Forest Hall
  - Great Lime Road, Forest Hall
  - Headlam View, Howdon
  - The Paddock, Killingworth
  - Hailsham Avenue, Longbenton
  - Birtley Avenue, North Shields
  - Blandford Road, North Shields
  - West Avenue, North Shields
  - Brenkley Avenue, Shiremoor
  - Tynemouth Road, Tynemouth
  - High Street West, Wallsend
  - Point Pleasant Terrace, Wallsend

- Alexandra Terrace, Whitley Bay
- Hillheads Road, Whitley Bay
- Great North Road, Wideopen
- Drainage repairs
  - Boldon Close, Battle Hill
  - Kings Road North, Benton
  - Whitfield Drive, Benton
  - Foxtan Avenue, Cullercoats
  - Wansbeck Road, Dudley
  - Clifton Terrace, Forest Hall
  - Angus Close, Killingworth
  - Sandy Lane, Killingworth
  - Grosvenor Drive, Monkseaton
  - Sherwood, Murton
  - Elm Street, North Shields
  - Malvern Road, North Shields
  - Mowbray Road, North Shields
  - Orlando Road, North Shields
  - Canterbury Avenue, Wallsend
  - Kings Road North, Wallsend
  - Central lower Prom, Whitley Bay
  - B1325 Hartley Lane, Whitley Bay

#### **4.4 Bridges and Infrastructure**

##### Works Undertaken October 2019 to September 2020

Below is a summary of the bridge/highway structures maintenance inspection works undertaken to date within the 2019/20 year:

- Principal Bridge Inspections – 6 no.
- Principal Retaining Walls and Culverts Inspections – 11 no.
- General Inspections – 43 no.
- Bridge Assessments - 1 no.

Below is a summary of the structural improvement works progressing or planned for the current 2020/21 year:

- Pier Road Bridge strengthening
- Borough Road Bridge demolition planning and PROW processing
- Principal Bridge Inspections – 6 no.
- Principal Retaining Walls and Culverts Inspections – 11 no.
- General Inspections – 56 no.
- Bridge Assessments – 1 no.

## 5) INVESTMENT IN THE HIGHWAY ASSET

The following tables provide a summary of the budgets that have been allocated to highway and bridges over the last 5 years.

### Highway Maintenance

Budget	Description of Work	2016/17	2017/18	2018/19	2019/20	2020/21
Revenue	Day to day highway repairs (e.g. potholes), patching programme, small planned road and footpath improvement schemes	£1,049,000	£1,049,000	£1,049,174	£1,049,174	£1,049,174
Local Transport Plan Capital - Roads	Annual resurfacing programme, annual surface dressing and micro-asphalting programmes	£600,000	£750,000	£678,000	£695,500	£500,000
Council Capital	Additional Council Capital investment in highway maintenance	£2m	£2m	£2m	£2m	£149,000
Other LTP Capital	Drainage Improvements, misc work and Asset Management	-	-	-	£290,000	£305,000
Other Capital	Additional DfT budget – National Pothole Fund	£138,000	£191,000	£131,000	-	-
LTP Capital - Footways	Footway improvement works funded through LTP	£284,000	£936,000	£808,000	£733,500	£490,000
HRA Footways		-	-	-	-	£400,000
Other Capital	Additional DfT funding – additional road and footway work	-	-	-	£730,000	£1,851,000
<b>TOTAL</b>		<b>£4,071,000</b>	<b>£4,926,000</b>	<b>£4,666,174</b>	<b>£5,498,174</b>	<b>£4,744,174</b>

## Bridges and Infrastructure Maintenance

Budget	Description of Work	2016/17	2017/18	2018/19	2019/20	2020/21
Revenue	Day to day bridge repairs, emergency work, graffiti bus partnership, minor planned schemes	£67,000	£65,000	£65,000	£65,000	£65,000
Local Transport Plan Capital	Major structural schemes (e.g. bridge replacement / refurbishment)	£972,000	£1,389,255	£480,000	£770,000	£900,000
Other Capital	Additional DfT Funding	-	-	-	£270,000	-
<b>Total</b>		<b>£1,039,000</b>	<b>£1,454,255</b>	<b>£545,000</b>	<b>£1,105,000</b>	<b>£965,000</b>

## 6) PERFORMANCE

As part of the Technical Services Partnership between North Tyneside Council and Capita, a suite of performance indicators is used, monitoring aspects of the Partner's performance in relation to the management and condition of the network. These indicators have been in place since November 2012 and are reviewed on an annual basis. The tables below outline recent data in accordance with the performance indicator methodology.

With reference to the condition of the main classified roads, independent condition surveys are undertaken, and the data is used to calculate a performance indicator figure (Road Condition Indicator (RCI)). The results for recent years are shown in the table below (note: a lower figure is better).

KPI/PI Reference	Performance Indicator	Target	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21
ENG 1.4 (RCI)	Percentage of A class roads that should be considered for structural maintenance	5%	3%	3%	2%	2%	2%	2%
ENG 1.5 (RCI)	Percentage of B and C class roads that should be considered for structural maintenance	5%	3%	3%	3%	2%	2%	2%
Not an indicator	Percentage of unclassified (residential) roads that should be considered for structural maintenance	N/A	9%	13%	14%	6%	4%	4%

The above figures illustrate the percentage of structural maintenance required to improve the road network and it is evident the figures demonstrate a steady state of good condition. This demonstrates that the implementation and adoption of asset management policies of North Tyneside Council has had a positive impact on the condition of the A, B, C and unclassified road network.

The other performance indicators within the Engineering service relevant to this report are detailed in the next table:

<b>CATEGORY 2 KPI's</b>			
<b>KPI/PI Reference</b>	<b>Performance Indicator</b>	<b>Target</b>	<b>Average performance over the last 12 months. From October 2019 to September 2020</b>
ENG 2.1	Roads and Pavements – Percentage of routine street care safety inspections carried out on time	95%	<b>75.94% (incl. Lockdown months)</b> <i>99.52% (not incl. Lockdown months)</i>
ENG 2.2	Roads and pavements - Percentage of CAT 1 highway defects that were compliant within 24 hours	98%	<b>100% (incl. Lockdown months)</b>
ENG 2.3	Roads and Pavements - Percentage of CAT 2 highway defects that were made compliant within 10 working days	98%	<b>75.60% (incl. Lockdown months)</b> <i>99.14% (not incl. Lockdown months)</i>
ENG 2.5	Roads and pavements - Quality of maintenance repairs	93%	<b>75.99% (incl. Lockdown months)</b> <i>97.32% (not incl. Lockdown months)</i>

<b>CATEGORY 1 KPI's</b>			
<b>KPI/PI Reference</b>	<b>Performance Indicator</b>	<b>Target</b>	<b>Average performance over the last 12 months. From October 2019 to September 2020</b>
ENG 1.2	Roads and Pavements – Permit scheme compliance of Capita workforce	90%	<b>92.16% (incl. Lockdown months)</b> <i>92.93% (not incl. Lockdown months)</i>
ENG 1.4	Roads and Pavements – Percentage of pothole and footpath enquiries inspected within 3 working days	80%	<b>89.58% (incl. Lockdown months)</b>

The figures in the above tables show average performance data both within the Covid-19 lockdown period and again with the lockdown period removed (which is the fairer indicator of performance). The figures demonstrate that the Technical Services Partnership is achieving and exceeding, in many instances, its agreed prescribed performance targets with regard to undertaking the Authority'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.

## 7) VALUE OF THE HIGHWAY ASSET

Under the Whole of Government Accounting (WGA) procedure, all councils are required to submit an annual detailed valuation of their highways and infrastructure assets. Each year, independent condition surveys of roads, footways and structures are necessary to assess their condition. Depreciated Replacement Cost is used for measurements purposes and are disclosed as a separate class of asset on the Council's Balance Sheet.

The most recent values are as follows:

Asset Type	2016/17 Valuation	2017/18 Valuation	2018/19 Valuation	2019/20 Valuation
Roads	£1,023 million	£1,065 million	£1,165 million	£1,205 million
Footways and Cycleways	£135 million	£144 million	£206 million	£221 million
Bridges	£189 million	£195 million	£461 million	£469 million

As of **September 2020**, the total value of highway assets equates to **£1,895,000,000**.

The increase in value isn't necessarily due to additional assets coming into being. It is more to do with improvements made over the last 12 months in our inventory data which now takes into account highway widths and not just length as reported previously. The square area of our highway assets has now been accurately surveyed and is higher than previously estimated. This improved inventory data has assisted in providing a more accurate WGA submission.

## 8) CONDITION OF CARRIAGEWAYS (ROAD SURFACES)

The Council uses a specialist computer system, ExpertAssets, to model the condition of roads under different funding scenarios.

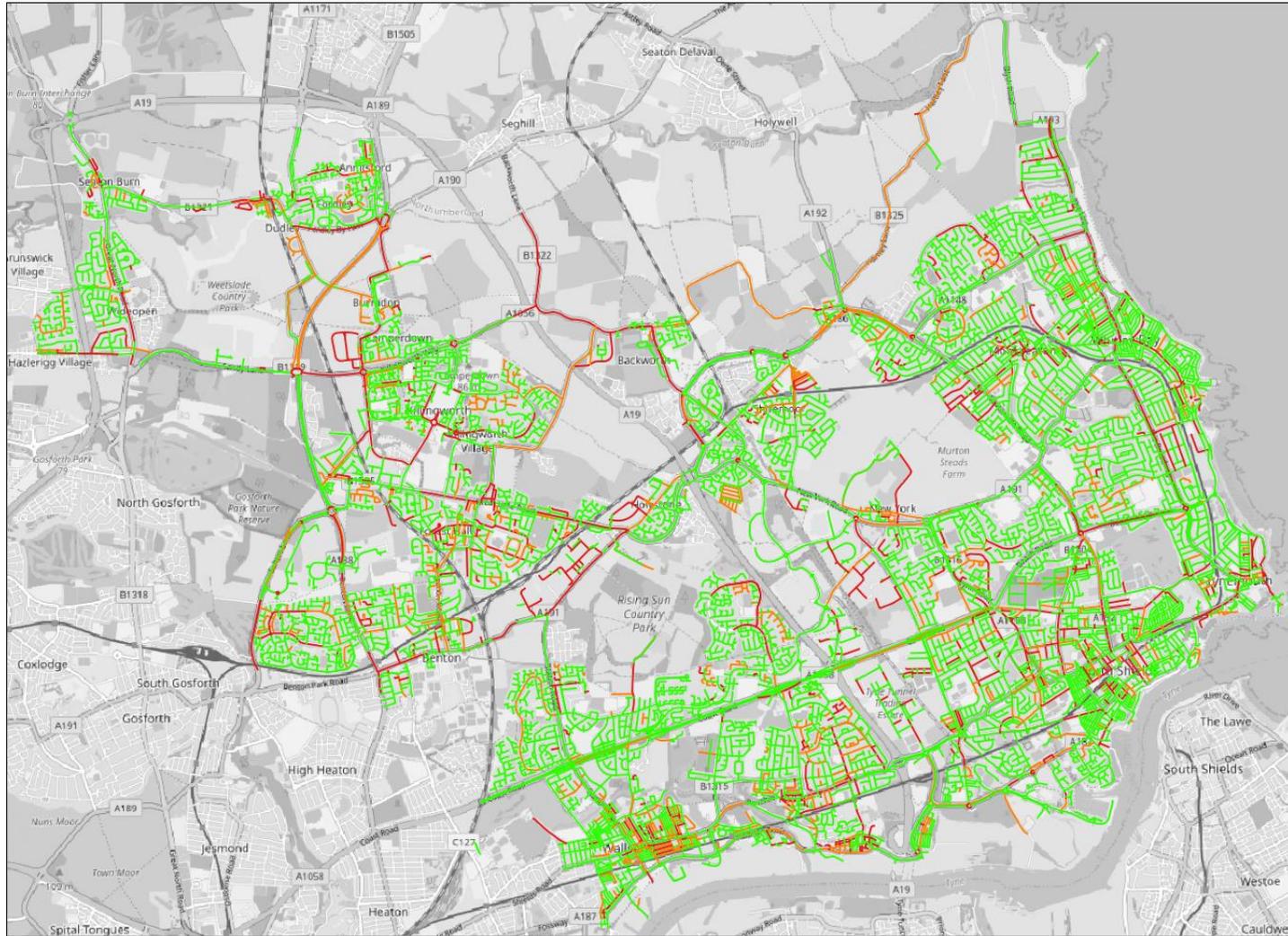
The service standards developed for North Tyneside's roads are 'good', 'early life', 'mid-life' and 'late life'.

- Roads classed as 'good' (colour coded green) are defined as a road which is as new, no defects or cracking identified. These roads do not require structural maintenance and are not defective
- Roads classed as 'early life' (colour coded yellow) are defined as a road which has minor chip loss, fretting, cracking and minor fatting. The road has minor defects

- Roads classed as ‘mid-life’ (colour coded amber) are defined as a road which has moderate defects such as local settlement, major chip loss and cracking. The road has moderate defects but can be “saved” by preventative maintenance
- Roads classed as ‘late-life’ (colour coded red) are defined as roads which have severe local settlement, major wheel track cracking, whole carriageway major cracking and whole carriageway major fretting. These roads require full resurfacing and cannot be saved by preventative maintenance treatments

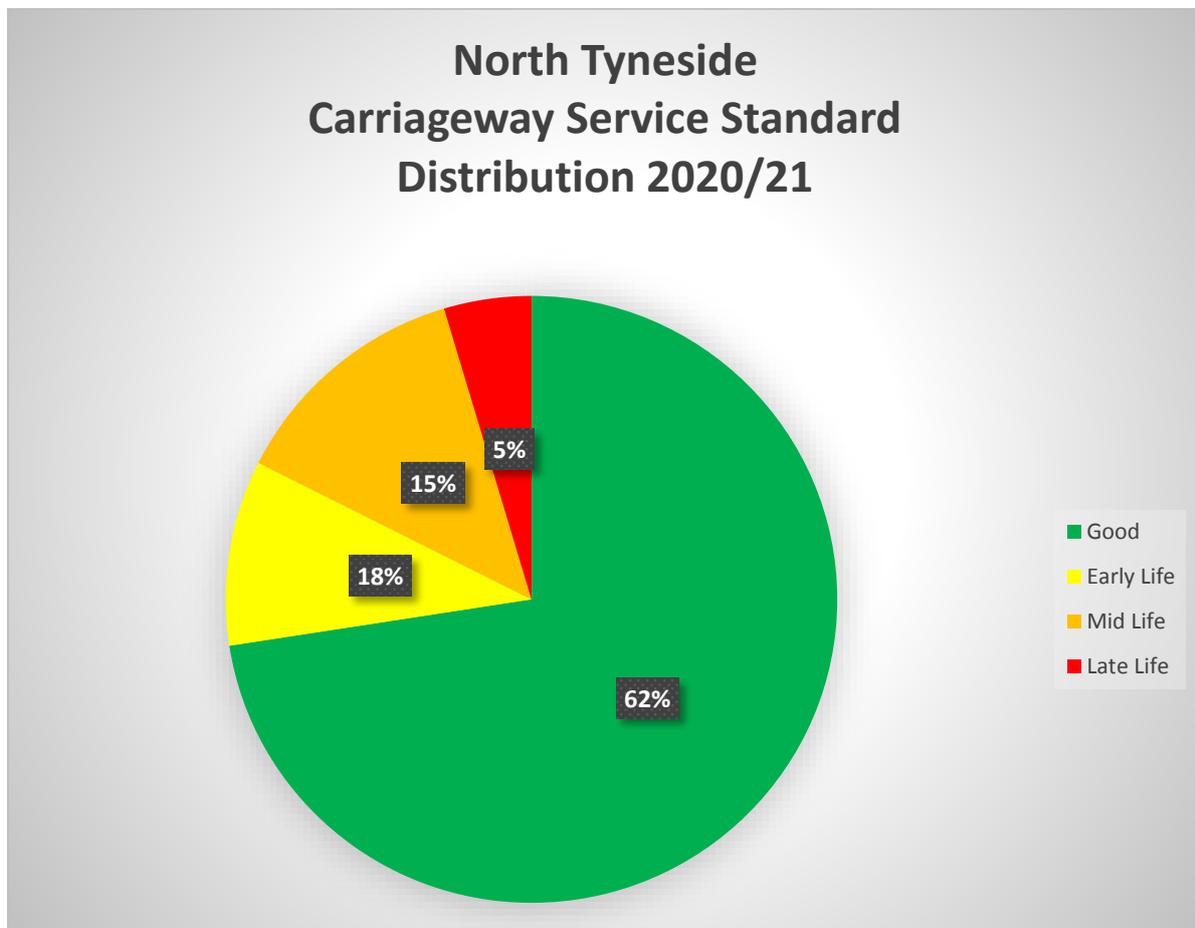
This section of the report demonstrates the positive effect that the continued additional investment in highways has made in recent years.

The following plan illustrates the current condition of the A, B and C classified network. As a result of the continued investment and the application of asset management principles the percentage of red routes has remained steady year on year since the additional investment was introduced. Without this investment, our classified road network would deteriorate much sooner.



Plan showing condition of highway network – September 2020

During 2020/21 the Department for Transport changed some of the criteria for survey companies when undertaking condition surveys of carriageways in England. This has resulted in a slight decrease in good roads compared to last year but this is likely due to the change in reporting parameters which are now more refined. The pie chart below demonstrates that under current funding arrangements, the quality of the highway asset remains good. This is evidenced by the majority of the roads being in good, early life and mid life condition and only a minimal percentage of roads being in late life.



#### Current Service Standard - Carriageway

The key to continuing the year on year good condition of our highways is to target our early and mid-life roads with preventative treatments to prolong their life. By carrying out preventative cost-effective surface treatments we will halt further deterioration of mid-life roads. As the above chart shows, only 5% of the borough's roads are in a condition where structural resurfacing should be considered. This has again remained unchanged since last year which demonstrates that our highway asset management principles are working by using the preventative treatments on mid-life roads and

therefore managing to keep a constant level of condition of carriageways with limited budgets.

To ensure we target our early and mid-life roads we gather annual condition survey data, input into ExpertAssets which will identify the roads in early and mid-life state. It is this information which we use to inform our forward works programme for improvement works on the highway

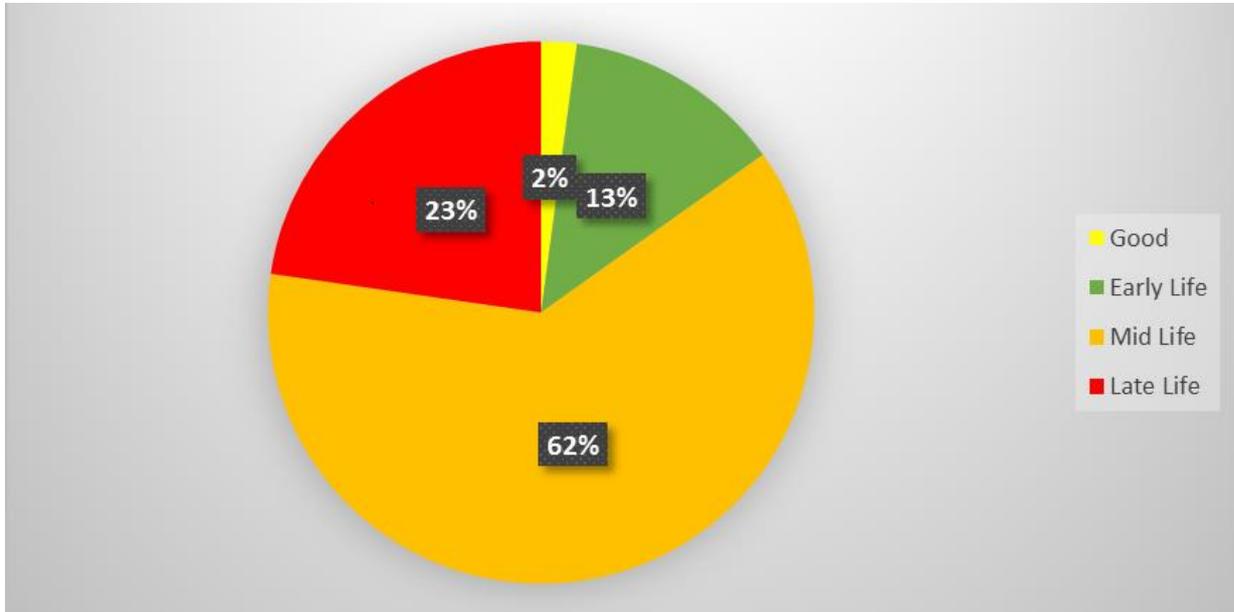
## 9) CONDITION OF FOOTWAYS

A Footway Network Survey (FNS) has been completed on 100% of the footway network and the condition presented in the pie chart below. As with carriageways the data is held in ExpertAssets and will be used to complete the Whole of Government Accounts (WGA) return and identify future footway schemes in line with the advocated asset management principles. Improvements to footways is a Mayoral priority and is considered accordingly as part of current and future work programmes.

The service standards developed for North Tyneside's footways are 'good', 'early life', 'mid-life' and 'late life'.

- Footways classed as 'good' (green) are defined as new, no defects or cracking identified.
- Footways classed as 'early life' (yellow) are defined as having minor defects with only localised repairs required
- Footways classed as 'mid-life' (amber) are defined as having more serious defects and large areas of repair required
- Footways classed as 'late-life' (red) are defined as having severe defects and are beyond localised repairs

The pie chart below shows the current condition of footways across the Borough for the period 2020/21:



Footways do not deteriorate at the same rate as roads. This is due to the significantly less weight-bearing traffic movement undertaken on a daily basis. The above pie chart shows that overall 77% of the footways in North Tyneside are in an acceptable condition (yellow, green and amber). As with carriageways, the overall deterioration of footways has remained steady compared to last year further suggesting that our HAMP policies are effective.

## 10) HIGHWAY MAINTENANCE BACKLOG

The Expert Assets 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 current carriageway maintenance backlog is calculated to be circa. **£25million**. The methodology used to calculate the backlog is currently being refined due to improvements to the ExpertAssets system. The backlog figure has increased by around £1m compared to 12 months ago due to national changes in the parameters for calculating the backlog. At present it is expected to remain steady provided current levels of funding are maintained. If the Authority was solely reliant on LTP funding, then the backlog would be substantially higher and would rapidly increase from year to year.

The footways maintenance backlog is currently **£6million** which is a similar figure to last year.

## **11) 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.

The NHT Network is a leading performance improvement organisation for councils that share a common interest in measuring and comparing their performance in order to improve. The Network shares experiences and good practice through member meetings, conferences, facilitated workshops, case studies and practice notes, all accessible via the web site. North Tyneside participates in the survey every 3 years. Our next survey is due in 2021. This will assist the Council in attaining Band 3 of the DfT self-assessment questionnaire which ensures that the Council receives its full Capital budget allocation from DfT for Highway Maintenance. It is vital that the Council demonstrates an ongoing commitment to customer engagement.

## **12) FUTURE PLANS AND ISSUES**

This section of the report advises of future activities within the Highway Maintenance Service and emerging issues which the Authority needs to be made aware of.

### **12.1 Response to Customer Feedback – Footway Improvement Works**

Over the last 4 years customer engagement activities showed that footway improvement work continues to be a high priority for our Mayor and residents and businesses of North Tyneside. The Council continues to listen to this feedback and the Mayor and Cabinet have responded by investing even more funding into improving footways. We understand that there is more to do to meet our resident's expectations and this investment from the Mayor and Cabinet will continue.

### **12.2 Self-Assessment Questionnaire by the Department for Transport (DfT)**

Several years ago, to encourage local authorities to adopt good asset management practices, DfT introduced changes to the highway maintenance formula funding mechanism. Each highway authority is required to complete a self-assessment questionnaire against a set of criteria aimed at assessing performance in relation to asset management, resilience, customer engagement, benchmarking, efficiency and operational delivery.

The self-assessment bandings are based on the maturity of the authority in key areas, which are described in each question. The principle on which the levels of maturity for each question were determined is described as follows: Band 1 – has a basic understanding of key areas and is in the process of taking it forward; Band 2 – can

demonstrate that outputs have been produced that support the implementation of key areas that will lead towards improvements; Band 3 – can demonstrate that outcomes have been achieved in key areas as part of a continuous improvement process. A local authority’s Band will be based on their score in the self-assessment questionnaire.

Our most recent self-assessment was submitted on 1<sup>st</sup> March 2020 and the Council was assessed to be a Band 3 authority again. This has resulted in the Council receiving its full allocation of Capital funding for the Highway Maintenance block. The Technical Partnership will not rest upon its success but will continue to maintain and improve our self-assessment answers for the next submission. It is understood that the next self-assessment questionnaire will have differing questions which the Council will have to meet. Currently we are awaiting guidance from DfT on what these questions will be but due to the Government priority in dealing with the Covid-19 pandemic, this guidance is still to be received. The Council is in a sound position to successfully answer any question in terms of highways if the self-assessment is to change in 2021.

2020/21 is the last year of the Government’s 5 year maintenance block allocation and we await confirmation of future year allocations to local authorities to be announced. Details of the current 'incentive bands' and funding % over the last 5 years are shown below: -

Year	Band 1	Band 2	Band 3
2015/16	100%	100%	100%
2016/17	90%	100%	100%
2017/18	60%	90%	100%
2018/19	30%	70%	100%
2019/20	10%	60%	100%
2020/21	0%	30%	100%

The funding allocation for North Tyneside Council is presented in the table below. This information was extracted from the DfT’s website.

	Total needs/formula allocation (£) announced in December 2014	Indicative incentive element by “band” of self-assessment ranking (£)		
		Band 3 (highest band = 100% of maximum incentive ) <sup>1</sup>	Band 2 (medium band =100% of maximum incentive) <sup>1</sup>	Band 1 (lowest band = 90% of maximum incentive) <sup>1</sup>
2016-17	2,070,000	125,000	125,000	113,000
2017-18	2,007,000	188,000	169,000	113,000
2018-19	1,817,000	378,000	265,000	114,000
2019-20	1,817,000	378,000	189,000	38,000
2020-21	1,817,000	378,000	114,000	0

To give an indication as to the consequence of not meeting Band 3 the funding implications are highlighted blue in the table below.

	Total needs/formula + band 3 monies	Total needs/formula + band 2 monies	Loss of funding if band 3 is not achieved for NT
2016-17	2,195,000	2,195,000	0
2017-18	2,195,000	2,176,000	19,000
2018-19	2,195,000	2,081,000	114,000
2019-20	2,195,000	2,006,000	189,000
2020-21	2,195,000	1,930,000	265,000

### 12.3 The Introduction of Gully and Culvert Sensors

In 2020/21, the Technical Services Partnership introduced new innovative technology to further improve our gully cleaning service and surface water management service through the introduction of 20 no. sensors around the Borough to a number of

strategically located gullies and culverts. The sensors are installed in gullies and culverts and can remotely:

- monitor water levels
- issue flood alerts and warnings (via email/SMS/voice) at pre-set levels
- send a battery health warning
- issue data to a monitoring portal

The monitoring portal has provided us with live and historic data to see how the levels react to weather events and with a warning alert to ensure we have some warning of a potential flood at the location concerned.

This system has worked alongside our GullySmart system, which is used within our gully cleaning vehicles as part of our risk-based approach to highway maintenance. A review of the success of this innovative technology will be undertaken in January 2021 following a full 12 months of use in the Borough.

#### **12.4 The Introduction of Innovative Surfacing Materials**

During 2021/22, the Technical Services Partnership has plans to undertake trials with our resurfacing contractors in the use of road surfacing materials that contain rubber or graphene.

This innovative treatment involves placing rubber crumb into the asphalt mix used to resurface roads. The rubber crumb is a waste byproduct of the tyre recycling process and by using in asphalt there is a reduced amount of bitumen used which results in a lower carbon footprint. We will aim to source this locally using tyres which have been collected from across Tyne & Wear if trials are successful.

The Council will also be investigating the use of graphene enhanced asphalt. This is expected to be a longer process to implement a trial as it is believed that it has only been used once in the UK currently. Graphene has the potential to assist maintenance and renewals operations by extending the asset life longer than the current 25 years design life of typical bituminous road materials. Graphene is up to 200 times stronger than steel and can give significant added durability to resurfacing materials if used as an additive.

### **13) MANAGEMENT OF SERVICES IN RESPONSE TO COVID – 19**

During early March 2020, due to the Covid-19 pandemic, the Government introduced a number of advisory measures to restrict interaction with one another and limit travel to contain the spread of the virus. This had a limited impact on the Highway Maintenance service in North Tyneside and operations continued as normal. On 23 March 2020, the Government imposed lockdown restrictions on the public and businesses. Key workers, which included Highways Operations, were exempt. Following the announcement of

the lockdown, the Highways and Construction Service were informed that the main suppliers of highway materials to North Tyneside were closed for trading with immediate effect.

Following the Government's decision to introduce lockdown restrictions, the Technical Services Partnership decided to suspend undertaking highway safety inspections and construction works with immediate effect to protect staff and the public and allow risk assessments to be made for a staged recovery plan. To ensure that North Tyneside Council still met statutory obligations under the Highways Act 1980, an assessment was undertaken by senior managers of the Technical Services Partnership with regards to what assets should and could be inspected in line with the restrictions being placed in England and on the highway maintenance industry as a whole.

A risk assessment was undertaken to determine what services should and could be taken in line with the restrictions being placed in the England in early April 2020.

In terms of Highways Maintenance only, a restricted highway inspection regime was formed for the identification and assessment of emergency repairs only. The North Tyneside area was split into 4 inspection areas. These being as follows:-

### **Area 1**

Weetslade  
Camperdown  
Valley  
Killingworth  
Benton  
Longbenton

### **Area 2**

Battle Hill  
Northumberland  
Wallsend  
Howdon  
Riverside

### **Area 3**

Chirton  
Preston  
Tynemouth  
Collingwood  
Cullercoats

## **Area 4**

Whitley Bay  
Monkseaton North  
Monkseaton South  
St. Mary's

It was determined at this time that each of these areas would have an assigned Street Care Officer (SCO). Although routine walked inspections would stop, the SCO for each area would instead undertake single manned driven inspections of all principal roads and other classified roads and main distributor roads through residential areas. This remained in place until the Government partially lifted lockdown restrictions to allow the public to go shopping and undertake exercise. When this was announced, the Technical Services Partnership increased the inspection regime to include walked inspections of all shopping areas and the seafront from Whitley Bay to Tynemouth on a fortnightly basis.

The SCO's remit for inspection was to only identify defects that would cause risk of danger to life or serious injury to highway users.

To ensure that the Technical Services Partnership adhered to the Government's lockdown guidelines all operational staff were based at home and were placed on standby to deal with any hazard raised by a SCO or a member of public. This remained in place until the 25 May 2020 whereby all operatives returned to normal operations. From the 25 May 2020 until 23 June 2020, operatives were assigned to deliver works which were delayed due to the lockdown. These were completed on the 22 June 2020 and full highway safety inspections and highway operations resumed on the 23 June 2020.

At the point of full lockdown on the 24 March 2020, all operational staff were supplied with relevant PPE requirements to meet key worker needs. These included the provision of FP3 face masks, hand gel and spray, hand wipes, social distancing signage and provisions such as clear perspex screens to segregate operatives in shared vehicles when separate transport was not available.

The Technical Services Partnership was informed that the majority of our key suppliers would provide a restricted service for the provision of materials from the 25 May 2020, which involved delivery and pick-ups on an appointment basis to ensure social distancing rules were met. These requirements are still in place at the time of writing this report.

Programmes for carriageway surface treatments and resurfacing works were started during Covid – 19 restrictions under safe working procedures and were completed on time as programmed. Our micro-asphalt programme began on the 4 May 2020 and

was completed on the 3 June 2020. Our resurfacing programme began on 30 May 2020 and was largely completed on 23 August 2020.

The Highway Maintenance Service was included in North Tyneside Council's Covid-19 recovery programme and the Service resumed full operations on 24 June 2020.

## 14) OTHER INFORMATION

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

### 14.1 Action Plans

The Technical Services Partnership is committed to continuous service improvement and a number of action plans are set out in the Partnership Annual Service Plan which can be viewed on request.

## 15) CONCLUSIONS

The following conclusions can be drawn from this report:

- The highway network is the most valuable asset in the Authority's ownership
- The current total value of highway assets is **£1.9 billion**
- The successful implementation of the HAMP policy and investment strategy is demonstrating that the adoption of asset management principles by North Tyneside has gradually improved the condition of the road network and is now ensuring that the condition remains at a relatively steady state.
- The continued additional capital investment in highway maintenance is improving the overall condition of the carriageway network in line with HAMP principles.
- The Council is performing well in relation to the maintenance of classified main roads and has now reached a steady state of good road condition. This is evidence that the Authority's preventative maintenance principles and other HAMP principles are working effectively. The relatively healthy financial investment in main roads is producing the expected benefits.
- Our carriageway maintenance backlog is currently around **£25 million**. This is similar to last year. This figure is likely to be revised upwards when further refinements to the method of assessment are introduced during the next 12 months

- The footways highway maintenance backlog is currently steady at around **£6 million**
- The Technical Services Partnership continues to achieve and exceed its KPI targets and through its Annual Service Plan is identifying innovative ways of working, service improvements and efficiencies which is evident in the report
- 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 and improving the gully cleaning service
- Bridge maintenance is under control and can be managed within existing LTP budgets. However, there are some emerging future schemes which may place a future pressure on budgets
- The Technical Services Partnership has managed to maintain its statutory duties for highway maintenance during Covid – 19 lockdown restrictions while ensuring that all staff remained safe and free from risk of Covid – 19. A business as usual service has now resumed.