



<u>Committee and Date</u>
<b>Place Overview Committee</b>
<b>02/03/2021</b>

<u>Item</u>
<u>Public</u>

## HIGHWAY IMPROVEMENT PLAN

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### 1. Summary

- 1.1. In 2019, the council appointed a specialist highways consultant to assist the authority in improving its approach to highway maintenance. To better understand the needs of the authority, the consultant facilitated 2 Member workshops in March 2020, as well as similar workshops with senior managers and contractors, to better understand the concerns about the service and where improvements were most urgently needed.
- 1.2. The intelligence that was gathered from these workshops, alongside analysis of key metrics and benchmarking with good practice elsewhere, led to the development of an Improvement Plan for the service to establish some high-level improvements to form a solid foundation for the service.
- 1.3. In July, the Council appointed a new Assistant Director of Infrastructure and Head of Highways, both of whom have continued with the implementation of the improvement plan, but who have also identified other areas for improvement. The outstanding elements of the old plan have therefore been adopted into a new improvement plan to be delivered jointly by council officers and Kier.
- 1.4. This report provides an update on improvements to the highway service.

### 2. Decisions

**The Committee is asked to;**

- 2.1. Note the contents of this report;
- 2.2. Identify areas of concern, not already considered within the improvement plan, for consideration into future improvement activity.

## REPORT

### 3. Risk Assessment and Opportunities Appraisal

- 3.1. The highway service is an essential council service that ensures the safe and effective movement of people and goods across the county. Local highways are a key part of infrastructure that enable road users to access essential service, places of employment, education and leisure and it is therefore essential that resources are used effectively to enable optimal outcomes to be achieved.
- 3.2. The work of the highway team is one of the most visible elements of council activity and as such stakeholders satisfaction with the highway service often align with perceptions of the council as a whole.
- 3.3. Nationally, highway authorities are managing a deteriorating asset due to the diminishing levels of real terms funding for highways over many years/decades. A deteriorating asset increases demand for services and stretches the limited resources available for maintenance.

### 4. Financial Implications

- 4.1. There are no financial implications as a result of this report
- 4.2. Any financial implications arising from future improvement or investment plans will be submitted to appropriate decision making boards with a business case for approval.
- 4.3. There is a need for investment in the highway network, and officers and members are lobbying government to increase the available funding to Shropshire.

### 5. Climate Change Appraisal

- 5.1. There are no climate change implications as a result of this report.
- 5.2. The service recognises the carbon impact its activities have and are actively looking at steps to reduce the level of this impact over the medium term.

### 6. Background

- 6.1. In March 2020, an Improvement Plan for Highways was developed to ensure that better services were able to be delivered to the people of Shropshire at better value.
- 6.2. The Improvement Plan focussed on 10 key themes. Reactive Maintenance, Customer Service, Resources, Strategic Transport Planning, Asset

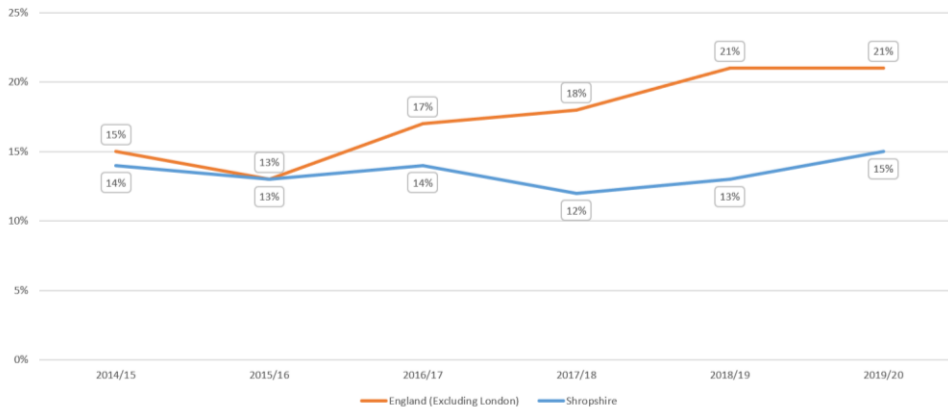
Management, Governance, Capital Works, Streetworks, Contract Management and Service Providers.

- 6.3. By September 2020, a vast majority of the proposed improvements had been implemented, the exceptions being those around restructure and resources. These have taken longer than anticipated due to the additional workload demands arising from Covid, unexpected windfall funding from DfT and the severe winter weather. Those improvements not yet completed within the initial plan are included in Appendix A.
- 6.4. The original plan focussed just on activity of the council. The current management team have identified however that in many cases improvements are needed between the flow of information and work between the council and its providers. A new plan to develop upon some of the initial improvements and introduce new initiatives has been produced jointly with our partners Kier and WSP and is being jointly delivered across the partnership to ensure that partners are enabling each other to deliver an optimum service. A copy of this latest plan is included as Appendix B.
- 6.5. To ensure continuous improvement, the service has set up monthly meetings across the partnership to allow staff to identify areas where service is perceived to be not meeting expectations, poor value for money or not aligning with good practice elsewhere so that issues can be properly investigated and where appropriate included as an additional improvement so that the improvement plan remains a dynamic document. The group similarly shares innovation opportunities and develops proposals to trial new technologies aimed at improving value for money or customer convenience and many trials of such technologies have taken place over the last few months.
- 6.6. Whilst there are tangible improvements which can be demonstrated from the implementation of improvement plan to date, the full benefits are unlikely to be realised until later this year due to the need of the full cycle of annual activity to take place (i.e. forward programmes submitted to the contractor for more effective planning will not start delivery until April and therefore the benefits of improved communications, increased value for money, improved quality of work, less disruptive traffic management etc. will not become apparent until these schemes begin delivery).
- 6.7. Some of the improvements that have been realised to date for each of these themes are set out in the following sections.

### **Reactive Maintenance**

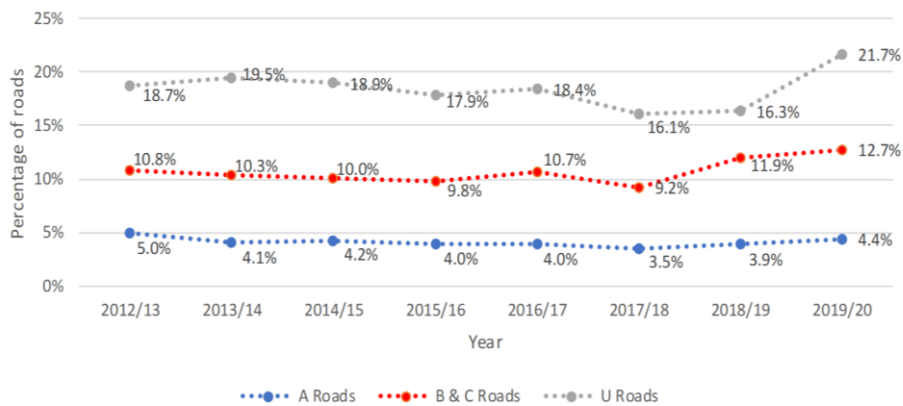
- 6.8. It is recognised that pot holes have been one of the biggest concerns of road users and seeking to improve the council approach to these has been a key focus of the service.
- 6.9. Shropshire, as is the case with a vast majority of highway authorities, is seeing a network in deterioration. Surveys show that approximately 21% of

local authority roads considered to be in poor condition and in need of major repair, an increase from 13% in 2015. Whilst the situation in Shropshire is somewhat better with only 15% of the network in poor condition, the situation has deteriorated rapidly since the Beast from East storm in 2018/19.



**Network condition values by year**  
**(Percentage of network with a life expectancy below 5 years)**  
(source: Annual Local Authority Road Maintenance Survey)

6.10. This is becoming a significant problem on the county's more rural routes which saw a deterioration in from 16.1% to 21.7% of unclassified roads considered to be in poor condition.



6.11. This deterioration in condition is reflected in the number of potholes that are forming on the network with almost 16,000 being reported on the network between November and January alone compared to 11,000 during the same period last year.

6.12. Preventative maintenance is largely funded by government and current funding is widely acknowledged to be significantly below the levels needed to maintain highway networks in a good condition. Funding varies from authority to authority to reflect the formula base on which allocations are derived. The total budget available to Shropshire Highways in recent years has been

£3,603 per mile less than the national average. Local authorities across the country are lobbying government to increase funding to allow improved maintenance of local roads and Shropshire officers and members have been active in supporting this lobbying.

- 6.13. Over recent years the revenue and capital budget available to the highways team has been
- 6.14. Despite this increasing demand the highways service has made improvements in the way in which it is maintaining pot holes. The teams have repaired 16,227 potholes to the end of January compared to almost 13,000 in each of the whole of the previous two years.
- 6.15. Of these only 25% were completed with a temporary repair to maintain safety compared to almost 75% last year. The vast majority therefore are fixed first time without need for a subsequent visit.
- 6.16. The unit cost of the activity has also fallen steeply with 45% more work being completed for £1.45m less than the same work would have cost last year.
- 6.17. The teams cleaned an average of 2,000 gullies per week compared to 2,000 per month the previous year.
- 6.18. Much of these improvements have been achieved through improving the collaboration between the council and its contractors, enabling Kier to specify the right solutions at an earlier stage.
- 6.19. The council has also developed its own in-house works team to supplement the Kier workforce. This team primarily undertakes more simple repairs on the rural network to allow Kier to focus their resources on the more complex issues. The team also undertake repairs on the drainage systems connecting gullies, many of which have fallen into disrepair, another common problem across the country.
- 6.20. Over the last 10 month the councils in house team have undertaken the following level of activity to supplement the work of Kier.

<b>In-house Find &amp; Fix Gangs</b>	
Pothole repairs	5,090
Kerb works	14
Signs cleaned	1,496
Signs re-set	65
Vegetation cut back around sign	42
Cleaned off gully/dug grip into ditch	773
<b>Total</b>	<b>7,480</b>

<b>In-house Drainage Teams</b>	

Attending to flooding/complete drainage cleansing	482
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### **Customer Service**

- 6.21. The highways teams have developed programmes of work for the coming year and these have been shared with Kier to enable the planning of their delivery at a significantly earlier stage than previous years.
- 6.22. This earlier planning means that traffic management and engagement strategies can be built into the works programme to ensure that communication with stakeholders takes place in a timely manner and feedback properly considered.
- 6.23. From the end of March, Kier will be adopting the councils Confirm system for its own use. This will enable far better transfer of information between the councils systems and Kiers systems. The Councils My Shropshire system draws information from the Confirm system and this should result in improved information being available through My Shropshire in the future.

### **Resources**

- 6.24. A new Assistant Director for Infrastructure (Steve Smith) and Head of Highways (Andy Wilde) were recruited and began their roles in July 2020. Both have an extensive background in highway management and has enabled further new ways of working to be considered and improved engagement with the broader industry to identify established best practice and emerging innovation.
- 6.25. The service has developed restructure proposals and worked closely with Kier to ensure that their own proposed staffing changes are synonymous with this plan to ensure a more joined up approach and better engagement between teams. The proposals have received all necessary approvals and the consultation process with staff will begin in the coming weeks. Additional temporary staff have been appointed in the meantime to ensure that the momentum for change is maintained.

### **Strategic Planning**

- 6.26. The service has improved the way in which it captures and manages data associated with the service to ensure that there is a better understanding of the asset need and enable modelling to ascertain future resource requirements and optimise budget spend over a 5-year programme.
- 6.27. This modelling will enable the council to be better placed to leverage funding as and when it becomes available as the service can effectively demonstrate the impact that investment can have in various scenario strategies.

### **Asset Management**

- 6.28. The highway asset is deteriorating, and as with the case with all highway authorities there is insufficient funding to be able to address all of the roads in need of repair in the medium term.
- 6.29. Undertaking surface dressing at a timely stage (i.e. when cracks begin to appear in the surface of the road) can stop the deterioration of the road and remove the need for significantly more costly repairs (up to thirty times the cost of surface dressing) at a later date. The service is therefore seeking to balance funding between preventing roads currently in a reasonable state of repair deteriorating further and repairing roads that are already in poor condition.
- 6.30. Modelling shows that were this investment in preventative measures not taken then the overall condition of the network would deteriorate significantly over the next decade.
- 6.31. Whilst the service is seeking to be more data led in its decision making, it is recognised that this is only part of the need to inform programmes of work. Each road has a community value and therefore it is important that investment decisions take account of roads that have higher community value. With improved data available, the council will be able to better engage with councillors and Town/Parish councils to help inform future maintenance programmes to ensure that budget spend and community outcomes can be optimised.
- 6.32. Teams have developed forward programmes based on asset need and will begin engaging with stakeholders over the coming months to ensure that they align with local needs and take account of local issues which may need mitigation to ensure that works are not unnecessarily disruptive to the local area.
- 6.33. The stopping of water ingress into cracks in the carriageway is essential to maintaining the network in good condition. The service has therefore significantly increased the amount of activity being undertaken on drainage and is now cleaning considerably more gullies each month than in recent years. This has been complimented by the reintroduction of a ditch clearing programme for the rural road network and an increase in the repair and jetting of the drainage network connecting the roadside gullies. It is hoped that this programme will be increased further next year should budgets suffice.
- 6.34. It is recognised that highway maintenance activity has a significant carbon impact. To seek to identify how this impact can be reduced the service has worked closely with Kier, WSP and another local provider Miles Macadam, in developing a programme of works that is carbon neutral. This £1m programme of large patching works is being delivered this quarter and achieved within similar budgetary and quality thresholds as previous programmes of work. This is a significant milestone and the first of its kind in the country and as a result is receiving a lot of industry interest.

- 6.35. Last year the government allocated an unexpected windfall payment to highway authorities. The service were able to undertake an additional 276km of surfacing across the county within a matter of weeks of the announcement being made and therefore were able to ensure that a significant proportion of the network was sealed and water ingress prevented over the recent winter.

### **Streetworks**

- 6.36. The streetworks team have been more actively involved in the day to day delivery of the councils works programmes to ensure that traffic management arrangements are appropriate and reduces disruption as much as practicable. The team also ensure that the councils work coordinate with that of third parties to make diversionary routes clear of conflicting works.
- 6.37. The team continue to increase their supervision of third party works and have this year significantly increased the income the council receives as a result of poor third party workmanship or failure to notify the council of works taking place. This increase in funding has been able to be reinvested into highway maintenance whilst also ensuring that third parties make good poor workmanship that may otherwise may have led to defects in the carriageway in the future.

### **Governance and Contract Management**

- 6.38. The service has introduced a full suite of governance meetings with the councils contractors WSP and Kier. This has enabled significant improvement in resolving contractual issues at an early stage and has ensured that there is joint ownership of the improvement programme, with both partners being proactive in identifying opportunities to improve the service.
- 6.39. A new suite of Key Performance Indicators has been agreed with Kier and these have been being tested over the past few months to ensure that there is clear agreement in the way in which they are interpreted and measured to ensure that both parties are in agreement of performance levels. It is intended to formally integrate these measures into the contract with Kier. A threshold of stretch targets have been set, which if Kier were to meet them, would enable bonus payments to be made. Conversely, should performance consistently fall short of expected levels there are mechanisms in place to allow the council to take action, including the ability for the council to terminate the contract if performance is consistently below expectations.
- 6.40. The list of KPI's and Kiers current performance against them is shown below;



KPI	Description	Target Performance Level	Current KPI Score
KPI 1a	Reactive & Routine Highway and Environmental Maintenance tasks completed in time. Reactive Highways Works	70.00%	72.0%
KPI 1b	Reactive & Routine Highway and Environmental Maintenance tasks completed in time. Street Lighting	98.00%	100.0%
KPI 1c	Reactive & Routine Highway and Environmental Maintenance tasks completed in time. Emergency Response	98.00%	100.0%
KPI 2	Reactive, Routine Highway and Environmental Maintenance tasks to required quality	98.00%	99.7%
KPI 3	Highway Project and scheme works completed on time and without defects	98.00%	85.0%
KPI 4	Up to date financial management information is provided on time and +/-10% of final cost	98.00%	100.0%
KPI 5	Provision of all forward works plans received on time and to correct quality	98.00%	100.0%
KPI 6	Monthly Performance Figures provided on time without errors	100.00%	100.0%
KPI 7	Applications for payment submitted on time correctly without errors. (5%)	95.00%	99.0%
KPI 8	Customers satisfied with the performance of Kier and its supply chain (MeasureTBC)	0.00%	0.0%
KPI 9	Winter Maintenance - service completed on time	98.00%	98.5%

6.41. Kier are implementing the Councils Confirm system to manage their work processes. This will enable before and after photographs of each defect repair to be available for analysis. This will significantly reduce the need for staff to travel to site to check on works and will increase the sample size used to undertake quality checks to ensure that the council is receiving the service that it has asked for from its providers and provide greater protection to the council when managing insurance claims.

## 7. Additional Information

- 7.1. Whilst there have been many tangible improvements over the last year, there are still significant areas where it is recognised that further improvements are required these include.
- 7.2. Communication – the service needs to better communicate the activity it is undertaking to ensure that there is an awareness of what residents can expect to happen and when and ensure that their ability to engage with the service is improved. The service also needs to be more open with the information available to members of the public with regards to the work it undertakes to ensure that it can be appropriately scrutinised and challenged on the value for money that is provided.
- 7.3. Engagement – It is recognised that in order to better understand the needs of road users the council needs to engage better with key stakeholders. The restructure is seeking to increase the number of highway technicians to

provide capacity for proactive engagement to better understand areas of concern or priority.

- 7.4. Minor works – whilst a lot of activity has been undertaken in improving the delivery of defect repairs, and will continue to do so, it is recognised that minor works (i.e. new signs, fencing repair etc.) can still have unacceptably long delay times between the team committing to undertaking the works and them being completed.
- 7.5. Schemes – The council has for a long time had a limited budget for road safety, active travel, road improvement schemes. These budgets have increased in the last year however and are expected to increase still further as more government funding is released to support active travel. The service is therefore setting out its plans for future need as part of its Local Transport Plan 4 development and will enable stakeholders to influence proposals and inform future programmes of work. Workflow processes will be reviewed to ensure that the time scale between decisions and implementation can be reduced.
- 7.6. Winter Maintenance – the winter maintenance service has not been fundamentally reviewed for some time. Recent poor winters have identified some weaknesses in the current approach and national best practice has evolved since the last plan. A review is therefore proposed ahead of the next winter.
- 7.7. Drainage – whilst the service has improved its productivity in drainage maintenance the service are not currently utilising technologies to derive better value and understanding of its drainage asset. Good practice elsewhere has enabled authorities to reduce costs of maintenance significantly whilst improving service outcomes by developing gulley emptying programmes that better reflect actual need rather than a once size fits all approach. This may result in gulley's that are regularly blocked being cleansed more frequently and ones where the little waste is retrieved cleansed less frequently. This approach should also assist in identifying issues on the connecting drainage systems.
- 7.8. Streetlighting – the service will seek to being implementation of a programme to replace existing lanterns with LED to significantly reduce energy costs and increase the longevity of bulb life. This should ensure that street lights are lit for a higher proportion of time than at present.

## 8. Conclusions

- 8.1. The highway service has made significant and tangible steps in improving its service delivery over the last year.
- 8.2. The continuing deterioration of the road network and the resultant increased demand for requests for service does however significantly stretch existing resources. These operational improvements aren't necessarily visible to

members of the public who understandably associate highway condition with council performance.

- 8.3. There is a need for Government to increase funding to enable improvement of the overall condition of the highway network to assist in managing demand for service.
- 8.4. There is an ongoing need for dynamic and continuous improvement programmes to be in place to ensure that the service derives as much value from its budgets as possible and continues to reflect the contemporary needs of road users.

**List of Background Papers (This MUST be completed for all reports, but does not include items containing exempt or confidential information)**

None

**Cabinet Member (Portfolio Holder) - Cllr Steve Davenport**

**Local Member - All**

**Appendices**

**A – Highways Improvement Plan - July 2020**

**B – Improvement & Collaboration Plan – December 2020**