

## **County Road Highway Maintenance Capital Budget and Progress on 2021/22 Schemes and Proposals for the 2022/23 Programmes and the On-street Parking Account 2022/23**

Report of the Chief Officer for Highways, Infrastructure Development and Waste

Please note that the following recommendations are subject to consideration and determination by the Cabinet (and confirmation under the provisions of the Council's Constitution) before taking effect.

### **Recommendations:** that:

- (a) progress on 2021/22 capital funded highway maintenance schemes detailed in Appendices 2 and 3 to this report is noted;
- (b) the capital funded highway maintenance programmes for 2022/23 as set out in Appendices 4 and 5 is approved,
- (c) the Highways, Infrastructure Development and Waste 2022/23 capital programme be enhanced by £11.691million (as explained in section 3 of this report) funded by external grants;
- (d) detailed allocation of the available budget be determined by the Chief Officer for Highways, Infrastructure Development and Waste, in consultation with the Cabinet Member for Highway Management, on the basis of the Highways Infrastructure Asset Management Plan, and within the limits of the approved budget;
- (e) the programme funded from the On-street Parking Account for 2022/23 as set out in Appendix 6 be approved.

### **1. Summary**

This report deals with both capital maintenance funding and the On-street Parking Account (OSP), reviewing for the capital programme what was delivered in 2021/22 and the proposed programmes for 2022/23.

Restoration or replacement of highway components which are dilapidated due to traffic loading, weather impacts or aging of assets is funded through capital investment. Sound capital investment in the highway network will ensure assets are kept structurally sound over its design life enabling officers to better plan future budget expenditure and mitigate the impact of unforeseen high-cost revenue funded reactive repairs. When investment is made at the right time, long term maintenance costs will be reduced.

This report presents information on the progress of highway capital maintenance programmes and schemes delivered in 2021/22; and Section 7 of the report details the proposals for capital funding of highway maintenance schemes in 2022/23.

The 2022/23 funding awarded to Devon County Council (DCC) from central government included in this report, was approved by Full Council in February 2022.

This report seeks approval from Cabinet to allocate the capital funding across the programmes and schemes proposed in 2022/23 as listed in appendices 4 and 5.

The allocations include an anticipated overprogramming brought forward of Local Transport Plan (LTP) monies from 2021/22 of £250,000, subject to approval of the revenue and capital outturn report, to be submitted to Cabinet in July.

The report also seeks approval from Cabinet for the programme of work identified in accordance with the provisions of Traffic Management Act 2004, to be funded from the On-street Parking Account as listed in appendix 6.

## **2. Learning and Innovation**

The Service is performing well and can evidence this to central Government and consequently is receiving additional funding through the Incentive Fund as a Band 3 authority for the 6th consecutive year.

Learning and adapting has been a central theme and has evolved into a new style of working. This has led to greater attention to understanding root causes of asset deterioration, an emphasis on integrating highway maintenance activities into single schemes and a consideration of which repairs and what routes are locally important to communities.

With the developing local asset programmes, there is a greater understanding amongst locally based officers of the overall need, and justification of priorities is becoming more transparent. There is an acknowledgement that programme management needs to be improved. Resources are being focused on providing improved communication of annual programmes and better explanation of changes that occur.

Innovation is also a central theme in delivering excellent highway services. Devon is one of only a few highway authorities to retain an in-house Materials Laboratory. This continues to provide a huge advantage in effectiveness and efficiency. The Laboratory is involved in all aspects of asset management including consultancy on treatment types, specification of materials and analysis of workmanship. In recognition of the pressure on funding, the Laboratory is currently exploring lower cost but fit for purpose solutions for patching repairs on minor roads.

This year an innovation board has been developed with the Highway Term Maintenance Contractor. This is an incentivised approach to share efficiency savings resulting from successful new ideas and approaches.

Throughout this report there is also further description of the innovative approach we are adopting to tackle the climate emergency and to protect the environment. Carbon management is an area where, with the support of Exeter University, we are taking a national lead with other highway authorities.

### **3. Capital Programme**

#### **Financial Considerations and Sources of Funding for 2022/23**

In 2022/23 Highway Maintenance Block (HMB) funding is £29.346 million and consists of:

- HMB funding LTP 'Needs' based formula is £23.477 million and is for maintaining and improving the network, based upon local knowledge, circumstances and priorities. This is equivalent funding compared with 2021/22
- HMB funding 'Incentive' element allocation is £5.869 million and is a mechanism to enable an authority to receive additional funding over and above the 'Needs' based formula.

In addition to the HMB funding is the 2022/3 Potholes Fund allocation of £23.477million.

At the time of setting the capital programme for 2022/23, Department for Transport (DfT) allocations had not been announced. The budget was set at £41.132 million, based upon the 2020/21 original LTP settlement. In February, the DfT published local authority allocations which included the elements above and totalled £52.823 million.

Further funding support was provided to the 2021/22 capital budget through financial provisions and carry over funding as follows.

- £209,000 associated with ecological mitigation works for the Slapton Line works, is expected to be brought forward, subject to approval of the revenue and capital outturn report submitted to this Cabinet.
- In support of the Authority's Carbon Reduction Plan and to save revenue funding on energy, £8.7 million was allocated to convert the remaining 45,000 Street Lighting assets, which are principally in residential areas, to LED over a three-year period. During the past year 7,000 lights have been converted. The current 2022/23 capital programme includes £860,000 and it is anticipated that at the end of 2021/22 a carry forward request will be sought for £2.36 million.
- During 2021/22 a bid to the DfT was invited for the replacement of site-specific traffic signals grant. Devon was awarded £500,000 of which £210,000 was profiled in 2021/22 and £290,000 in 2022/23.

Table 1 summarises the funding sources for 2022/23 as:

LTP Needs Formula Allocation 2022/23	£23,477,000
Incentive Funding (Band 3)	£5,869,000
Potholes Fund	£23,477,000
Projected LTP/Potholes Fund overprogramming projected b/f from 2021/22 (subject to approval)	£250,000
Traffic Signals maintenance specific DfT grant	£290,000
A379 Slapton Line projected b/f grant from 2021/22	£209,000
Highways Lighting LED £860k per the budget book plus projected variance b/f from 2021/22 £2,360k (subject to approval)	£3,220,000
<b>Total</b>	<b>£56,292,000</b>

**Table 1 – Funding Sources**

It is worth noting that the available funding for 2022/23 is over £12 million (17.6%) less than 2021/22. This is due partly to prudent profiling of £7.7 million of the 20/21 Potholes Fund into the last financial year. Although the LTP Needs Formula and Potholes Fund settlements are the same this year, there are no longer any challenge bid opportunities. This revised lower level of funding is the DfT proposed settlement for the subsequent two years also with no allowance for inflation. There is further detail on this and the implications in the revised Highway Infrastructure Asset Management Strategy being considered by Cabinet as a separate report.

#### **4. Road Condition and Strategy**

The condition of Devon's Road Network has improved considerably in the last few years.

Assessment of road surface condition of classified roads throughout the United Kingdom is provided using automated survey vehicles (SCANNER) and through visual surveys which ensure a consistent method of determining and comparing road condition across the UK network. The main measure of road condition is the Road Condition Indicator (RCI), this is made up of several parameters, such as cracking and rutting which combine to give an overall measure of the state of the road and an indication of surface condition. The underlying data can then be used along with other data to inform decisions about maintenance and future programmes.

Under the Local Government Act, Local Authorities (LA) are required to provide, over a two-year cycle, data to the Department for Transport (DfT) on the conditions of their 'A', 'B' and 'C' roads. In addition, because the percentage of unclassified roads make up more than 52% of the total road network in Devon, we also measure the road condition of this important part of the network, and this survey is undertaken over a three-year cycle.

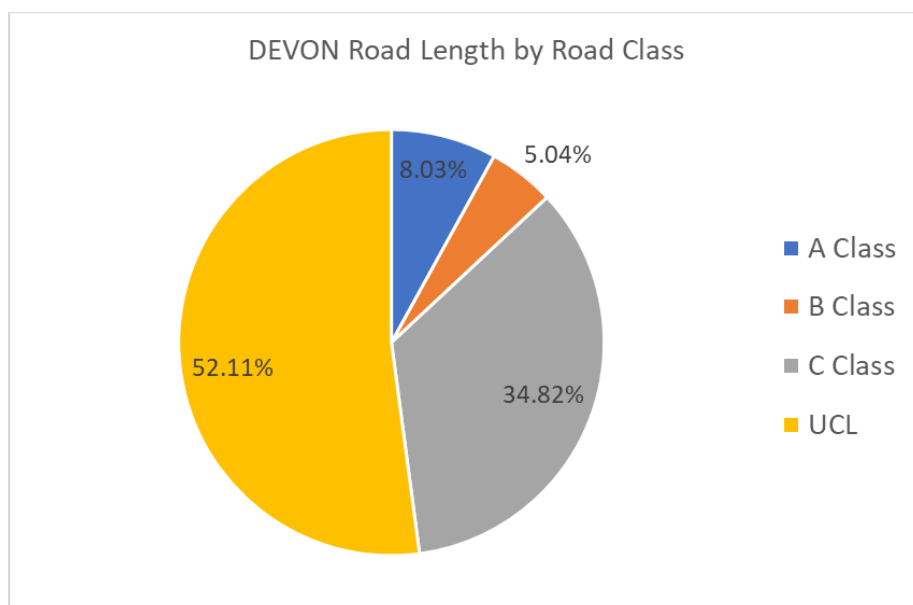
Based on the RCI data, sections of road are split into 3 categories (red, amber, green) representing the general condition of that piece of highway with red being the worst condition and green carriageways in a good state of repair.

The roads categorised in a 'red' condition indicate poor overall condition and are roads likely to require major maintenance soon, some possibly immediately. If left untreated the cost of maintaining these roads increase significantly the longer they are left. Those roads within an 'amber' condition are roads that are in a reasonable condition but have some apparent deterioration requiring further investigation to determine the optimum timing for planned maintenance. Often intervention maintenance on these roads will extend the life of the road at a considerably reduced cost than if the section of road was allowed to deteriorate to a 'red' condition category where more extensive and major works will be necessary.

### Road Network

Figure 1 shows the proportion of classified and unclassified roads across the network.

Almost every journey begins and ends on local roads. The local road network is of critical importance in connecting people and driving economic growth and should be treated as an important national asset which must be managed appropriately. Individuals, families and communities depend on their local road network and it acts as the key arterial system that drives economic growth in our villages, towns and cities. In Devon unclassified roads combined with 'C' roads make up 87% of Devon's total road network.



**Figure 1 - Devon's Road Length by Road Class**

## 5. Road Statistics and Analysis

Devon has a commitment under our Highway Infrastructure Asset Management Plan (HIAMP) to maintain the 'A' and 'B' class road network to a minimum condition of

below 4% in the red national indicator band. This commitment absorbs a significant part of the funding streams with the remaining budget spread across Devon's significant remaining road network of 'C' and unclassified roads.

Reviewing the 2021 survey data for Devon, the percentage of roads categorised in red condition was:

- 'A' road's 2%
- 'B' road's 3%
- 'C' road's 12%
- Unclassified road's 15%

Appendix 1, Figures 1 to 4 incl. provides a summary of Devon's (RCI) road condition indicator data in a graphical form over time by road classification using the national indicator bands.

The graphs indicate a significant improvement and is a demonstration of what can be achieved with the higher level of investment received in recent years.

Recent asset modelling (Jan 2021) estimates that to fix the most deteriorated roads requiring maintenance now would cost the authority over £168.1m and to maintain the road network as it is, steady state, would require an annual investment of more than £50 million. Scenario modelling predicts that there is a £20 million annual shortfall in funding to maintain roads in a steady state and the cost of backlog of repairs to C and Unclassified roads will increase by a further £180 million by 2030.

For many years funding restrictions have seen a growing reliance on preventative and short-term less expensive treatments, however such treatments, although providing an excellent short to mid-life solution, cannot be used indefinitely. At some point more robust treatments are required to avoid the repetitive cycle of pothole repairs. With Devon's road network being predominantly rural and with instances of minor roads structurally poor, a high proportion of the network is more vulnerable and susceptible to the formation and propagation of potholes.

Although Devon's overall bridge stock remains classed as "good" and continues to be placed in the top three of LA's in the UK for bridge condition, the large size of Devon's bridge asset still means there are over 800 bridges classed as either of 'fair' or 'poor' condition. With 'good' condition rating representing a low risk to public safety conversely a 'poor' condition rating indicates a significant risk to public safety and to mitigate this level of risk locations have to be managed by weight restriction signs, physical measures, monitoring or strengthening.

Recent programmes of work are showing the average condition of the retaining wall stock is improving due to the larger proportion of the Bridge Assessment and Strengthening (BAS) budget being allocated to the maintenance of this asset type.

## **6. Capital Highway Maintenance Programme: 2021/22**

Progress on the 2021/22 Highway Structural Maintenance Programme is shown in Appendix 2 of this report and the 2021/22 Bridges Assessment and Strengthening

Programme can be found in Appendix 3, further area specific scheme programmes can be provided.

Throughout the last year there have been additional challenges and restrictions imposed upon society by the pandemic. Adding to these challenges are the personal challenges that staff have had to endure over the past 12 months but delivery of the service has still been met through the remarkable efforts of our officers, a collaborative approach with our supply chain partners and effective and collective communication procedures that ensured, as far as restrictions permitted, the delivery of a normal maintenance service. This collaborative approach has enabled the successful delivery of an extremely ambitious capital programme.

In 2021/22 a total of 166 bridge and structures projects were included in the annual programme for design, inspection or works. The number of landslides and retaining wall failures has increased in recent years and the Bridge Assessment budget has been under increasing pressures year on year to cover this unplanned engineering work. In instances where embankment failures and slippages occur affecting highway stability issues the funding for this work will be provided through the Highway Structural Maintenance (HSM) budget.

Over 1,500 ageing streetlight columns have been replaced during 2021/22 and in parallel inspecting and testing some of our ageing and some younger columns has been undertaken to identify the risk. Testing columns was a key process last year and enabled us to target high risk columns.

Traffic signals have been upgraded at 31 locations over the past year which both improves the safety of the asset and by use of extra-low voltage and LED signal heads reduces the energy consumption.

## **7. Capital Highways Maintenance Programme: 2022/23**

The 2022/23 total allocation is £56,292,000 (subject to the carry forward requests, being approved as part of the revenue and capital outturn report being considered by Cabinet in July 2022) with a breakdown of the respective programme elements included in Appendix 4 and 5. It is proposed to allocate the funding as follows:

Highway Structural Maintenance	£47,292,000
Bridge and Structures Programme	£9,000,000
<b>Total</b>	<b>£56,292,000</b>

**Table 2 – Programme Allocation**

The funding is £12 million less than in 2021/22. A cross-asset prioritisation exercise has been conducted as recommended in the code of practice. Considering this, and the management of risk, it is proposed to continue to maintain historic funding levels in structures, streetlighting, traffic signal equipment and public rights of way. Consequently, the impact of reduced funding will impact most on the minor road and footway network. The road and footway hierarchy will help prioritise demands.

In 2021/22 our principal term contractor, changed from Skanska to Milestone Infrastructure Ltd (MI) a subsidiary company of M Group Services. In November, Cabinet approved that the Term Maintenance Contract (TMC) held with Milestone Infrastructure be extended by three years to 31 March 2027 (the maximum permitted extension under the contract). An innovative and pragmatic approach is being developed to ensure that the contract is sustainable focusing on effective use of resources and providing value for money.

In addition to the Term Maintenance Contract (TMC), there are several other contracts in place that deliver other significant elements of the capital programme. A framework contract is currently out to tender and will provide alternative supply chain delivery options for surfacing and patching works, high friction surfacing and in-situ and ex-situ recycling. There are also separate contracts for the delivery of specialist works such as surface dressing, micro texturing and road restraint systems.

Key elements of the proposed programme include:

### **7.1 Highway Structural Maintenance (HSM): Principal Roads (A class roads)**

Overall condition on principal roads has improved over the last 12 months the level of amber state at 27% is an indicator that the approach is effective in continuing to keep this important and heavily used part of the network in a steady state. To ensure we retain principal roads at less than 4% 'red' condition this budget line has been retained at £7.0 million for carriageway resurfacing and patching. It will ensure those roads which need immediate attention are treated whilst also optimising the treatment for planned maintenance on those roads which are beginning to show signs of deterioration.

### **7.2 Skid Resistance Treatment (SCRIM)**

Skidding resistance surveys (SCRIM Surveys) are undertaken by local authorities and Highways England. They provide a measure of the road surface contribution to the frictional forces developed between a vehicle's tyres and the road when accelerating, braking or cornering. Skidding resistance figures do not necessarily reflect safety levels on the network but rather sites where further investigation is required.

Devon limits routine annual SCRIM surveys to the principal road network only as it is considered neither affordable nor practicable for all roads on the highway network to be surveyed for skid resistance. The remaining untested network is covered under the strategy in the Annual Wet and Dry Collision Review, other roads identified as requiring further investigation are also included in the programme of assessment.

It is not possible to treat all parts of the principal road network that are currently below the current standard therefore the work is prioritised and limited to potentially high-risk sites with a history of collisions. This includes sites with a reported skidding resistance deficiency and a history of collisions on wet surfaces, others with a high deficiency (greater than or equal to 0.15) and collisions on dry surfaces.

The allocation for SCRIM deficient sites is £2.011 million.



## **7.3 All Roads**

Key elements include:

### **7.3.1 Local Asset Programme**

Following our 'Doing What Matters' testing and learning we are working in a different way with greater emphasis placed on local involvement into scheme selection. A large element of available budget has been devolved out to the locality areas. 2021/22 has been a transition year to facilitate this new way of working and to prepare the locality areas in developing their local programmes. A countywide provision of £13.485 million has been allocated based on asset management principles. The factors determining allocation include road length and condition, traffic volume, pothole damage and footway length and condition. Local priorities are determined by a review of physical condition, the knowledge of the Neighbourhood Team and in discussion with the local community, typically through the Parish or Town Council. An integrated approach to repairs is being encouraged combining patching, drainage and other repair needs, to reduce the number of roadworks and the degree of disruption to the traveling public.

### **7.3.2 Preventative Programme**

Surface dressing and microasphalt are low carbon and low-cost surface treatments that restore texture and extend the life of roads and prevent the formation of potholes. £5.0 million is being targeted to treat over 150 sites this summer.

### **7.3.3 Minor Road Strategy**

A substantial portion of the allocation is being directed to minor repair across the network.

- £4.354 million is allocated for Highway Improvements Hand Patching for localised issues, identified as serviceability issues from staff and the public.
- £2.2 million has been allocated to operate four 'Dragon Patchers' located strategically around the county which provide an effective and efficient additional option for the repair of small to medium size patches on selected parts of the network.

### **7.3.4 Road Restraint Systems**

£600,000 has been allocated to continue with the upgrading and replacement of road restraint systems. The programme is developed based on high-risk sites including potential for railway incursion, accident severity, commercial traffic data and speed limit.

The strategy will be further reviewed in 2022/23.

### **7.3.5 Road Weather Stations**

An ongoing programme valued at £100,000 per annum is being undertaken to upgrade road weather stations that are used to inform winter decision makers on the appropriate response to deal with various winter service scenarios. Replacing these stations and upgrading their communication will provide greater resilience to managing winter service and severe weather events over the next decade.

### **7.3.6 Highway Lighting Column Upgrades and LED Replacement**

8% of street lighting columns are over 40 years old and a significant proportion of younger columns have been identified with specific failure modes that need to be checked. In response to this £1.5 million has been made available annually to facilitate a continuing programme of column replacement, to mitigate the liability that this represents.

Over 1,500 ageing columns were replaced in 2021/22 but in parallel the opportunity was taken to check and test some ageing and younger columns to identify the risk of failure. Testing columns was a key process last year and enabled high risk columns to be prioritised. During 2022/23 this work will continue with the risk-based column replacement programme along with testing a further 10,000 columns. Inspections and testing have enabled better identification of risk and management of stock.

The on-going street lighting programme to upgrade all lights to LED continues into 2022/23, with a budget of £3.220 million (£860,000 plus requested carry forward of £2.460 million), all remaining lanterns are planned to be upgraded over the next 12 months.

Although the ongoing programme has had some delays outside the control of the Service, over 11,000 conversions were carried out during 2021/22. The continuation of this programme into 2022/23, with a budget of £4.770 million, will see all remaining lanterns upgraded over the next 12 months. In 2021/22, projected spend is £2.410 million, therefore £2.360 million will be requested as a carry forward to add to the budget above.

### **7.3.7 Traffic Signal Replacements**

The traffic signal upgrade programme continues over the coming year with £1.4 million being invested. We continue to refurbish traffic signals junctions and pedestrian crossing with a program to refurbish 12 pedestrian crossing and 14 traffic junctions during 2022/23. This is to improve the safety of the asset and by the use of modern controllers, detection equipment, extra-low voltage (ELV) and LED signal heads to reduce the energy consumption.

Additional DfT signals funding approved in 2021/22, will continue in 2022/23 on specific site approved schemes.

### **7.3.8 Bridges and Structures**

Whilst there hasn't been a national survey for some years it can be assumed the

condition of Devon's bridge stock is still ranked 3<sup>rd</sup> in the UK out of 203 Local Authorities. However, the RAC Foundation continues to report that Devon has the largest number of substandard bridges in the UK at 249 although when considered in context with the total bridge stock in Devon, this is not a cause for concern, for three reasons:

1. Devon has the largest stock of Local Authority bridges in the UK by a significant amount and the 249 substandard bridges represent only 6% of the total stock.
2. A significant proportion of the 249 bridges are in fact ancient 'clapper' bridges on Dartmoor and although we cannot prove the full load carrying capacity of these ancient bridges they continue to do so without any signs of distress. These bridges will not be strengthened nor will have weight limits imposed upon them.
3. There are many bridges in Devon with weight limits that are appropriate for the location they are in; they do not cause transportation difficulties nor limit access for users consequently there are no plans to remove the weight limits on these structures.

The Bridge and Structures maintenance allocation for 2022/23 is £9 million. The programme for 2022/23 will continue with further strengthening projects to improve the resilience of the network. The ongoing programme of inspections and major examinations will continue to ensure the risk of failure of an asset is kept to an acceptable and manageable level. The first stage of safeguarding of the public by modifying fencing on high bridges was completed in 2021/22 and further works on other identified bridges will continue in 2022/23.

### **7.3.9 Storm Damage (resilience contingency)**

In line with DfT requirements for highway authorities to make provision within their funding allocation, a resilience contingency reserve of £673,000 has been incorporated within the programme should storm damage be experienced during the year. This is larger than previous to assist with responding to uncertainty regarding the predicted decline in network condition.

### **7.3.10 Cycleway and PROW Network**

Throughout the pandemic there has been an increased volume in the number of people using both our cycle routes and PROW. This is good news in terms of public health and the wellbeing of society, but the impact of increased footfall and cycling means an increase in maintenance. £1.75 million is being invested into these budget areas to ensure these amenity transport assets continue to be maintained to a safe and usable condition and promote active travel.

## **8. Options and Alternatives**

The current approach to scheme selection uses a preventative regime based upon

need and sound asset management principles that optimises the use of available funding to reduce whole life maintenance costs. An alternative to this preventative regime would be to repair roads on a 'worst first' basis by focusing maintenance on the sections of road in the poorest condition.

Experience and learning gained from working differently under the Doing What Matters (DWM) umbrella has demonstrated that a combination of both traditional approaches combined with greater influence and input from a community perspective offers a more transparent service. Through greater local involvement it offers a more robust and pragmatic focus on scheme selection by ensuring those locally identified important roads are 'fit for purpose'. 2021/22 was the transition year in preparing the Asset and Neighbourhood Teams for adopting a countywide Local Asset Programme approach in 2022/23.

It is important however to note that any departure from our asset management approach as defined in the HIAMP could adversely affect future financial settlements from the DfT who see the use of sound asset management principles as fundamental in delivering cost effective maintenance solutions. It is therefore essential that developments within the plan continue to incorporate and amalgamate these and other principles within the assessment of its works programmes as the DfT have clearly said they will take this into account in future submissions for funding.

## **9. On-Street Parking Account**

The expenditure of on-street parking income is restricted by the Road Traffic Regulation Act 1984. The costs of operating the on-street parking service is the first call on the income held in the On-street Parking Account. Any remaining surplus must then be used in accordance with the eligibility criteria set out in Section 55 of the Act, with surpluses used for:

- The provision or operation of public transport services
- The provision of facilities for public transport services
- Highway or road improvement projects
- Environmental improvements.

The 2022/23 Highways Maintenance budget includes £1.7 million for highways cyclic revenue maintenance works, which are funded from the On-street Parking account. Full details of the proposed On-street Parking Account non-operating expenditure for 2022/23, totalling £4.503 million, are shown in Appendix 6.

The estimated balance of the account is now expected to reduce from £1.4 million at 31 March 2022 to £860,000 by 31 March 2023. Expenditure charged to the On-Street Parking Account is regularly reviewed in order to ensure the fund is used effectively.

### Traffic Management Plans

There continues to be a high demand from communities for the review and implementation of parking restrictions. Larger schemes looking at community wide

changes (including measures such as residents parking) are served via the £25,000 Traffic Management Plans budget in the On-street Parking account.

The current level of demand means that the 2022/23 programme is filled with existing commitments, and a full programme of works has been developed by the Traffic Management Team with regular updates shared with Members.

Due to continued high levels of demand, requests for new schemes are prioritised on the basis of traffic management need, sustainability, and community support for inclusion in future programmes to ensure resource and monies are used to best effect. To ensure sustainability, schemes should be substantially self-financing, including components of residents parking and / or pay & display, in line with our policy on new residents parking schemes.

## **10. Consultations**

The results of the 2021 National Highways and Transport (NHT) Public Satisfaction Survey reflect public perception of performance, importance and the desire for various activities to be funded. The overall perception of highway maintenance is slightly lower than the national average, however, in comparison to other County Councils, Devon remains slightly above average. Analysis shows that the condition of the highway network and the speed and quality of repairs are important to the public. The public would also like to see more funding directed to improving the condition of roads.

The summary of the survey undertaken in June 2021 gives overall a comforting position and shows no significant change to the previous year's survey however it does highlight a difference between public perception and other evidence of highway condition. Pothole numbers have reduced and condition survey results have improved yet the perception is that condition has deteriorated.

## **11. Environmental Impact Considerations (Including Climate Change)**

The ability to efficiently transport people and goods around the County underpins Devon's economy and has a direct impact on the quality of our environment. When maintenance work is undertaken, it is managed to ensure that the effect on the surrounding environment is kept to a minimum.

On carriageways and footways, surface treatment and reconstruction works are tightly controlled to achieve long term durability. Devon continues to use recycled materials within their hot mix materials and trials are underway to further improve asphalt durability through the addition of materials such as lime, rubber crumb and graphene. Whenever possible the use of recycled materials and secondary aggregates are encouraged and now with all local quarries supplying carbon efficient warm asphalts, Devon is by example, leading in its efforts in meeting its carbon neutral target by 2030.

The use of tyre bales has been successfully developed as a recycling alternative for embankment stabilisation. This provides a long-life, cost effective and easy to install solution.

Prior to installation, highway construction materials are subjected to rigorous testing to ensure their suitability within the construction and how its use impacts on the environment. All construction contracts also include for recycling plans to ensure that the use of natural resources is reduced where recycled alternatives exist.

Biodiversity net gain is an important consideration and where appropriate wildflower planting is encouraged on highway verges and roundabouts.

As part of the Devon County Council's drive to become carbon neutral by 2030 we are continuing to investigate, consider, and embed new ways of working that help reduce the carbon output when designing and commissioning highway maintenance operations. This involves developing carbon emissions calculations, taking a 'cradle to grave' approach from sourcing primary materials through to their disposal at the end of the project life. The Council is taking a lead role working with Exeter University and nationally with other authorities to develop average carbon intensity for various key work activities using a Carbon Impact Assessment Tool. This information will then be used to establish the potential for utilising different treatments or to drive through procedures and processes that will reduce our carbon usage.

It is now estimated that the authority has saved over £2 million on energy over the past year since it embarked on the switch to energy efficient LED from 2014 within the street lighting asset. The remaining lanterns are planned to be upgraded to LED over the next 12 months with a continuing programme of column replacements. The contractor has also committed to, and are progressing towards, zero waste to landfill by 2022 and being carbon neutral by 2030.

Once the Street Lighting programme to upgrade all lights to LED is complete, Devon County Council will have reduced the carbon emissions generated by its streetlighting by 75%, reducing carbon emissions by more than 15,000 tonnes each year, the equivalent of taking 8,000 cars off the road.

Within the traffic signals asset, the use of extra-low voltage and LED signal heads has reduced the energy consumption by 28% since 2015.

## **12. Equality Considerations**

Where relevant to the decision, the Equality Act 2010 Public Sector Equality Duty requires decision makers to give due regard to the need to:

- eliminate discrimination, harassment, victimisation and any other prohibited conduct.
- advance equality by encouraging participation, removing disadvantage, taking account of disabilities and meeting people's needs and
- foster good relations between people by tackling prejudice and promoting understanding.

Taking account of age, disability, race/ethnicity (includes Gypsies and Travellers), gender and gender identity, religion and belief, sexual orientation, pregnant women/new and breastfeeding mothers, marriage/civil partnership status in coming

to a decision, a decision maker may also consider other relevant factors such as caring responsibilities, rural isolation or socio-economic disadvantage.

This may be achieved, for example, through completing a full Equality Impact Needs Assessment/Impact Assessment or other form of options/project management appraisal that achieves the same objective.

An overview of the impact assessment entitled '2022/23 Budget Impact Assessment' for all service areas has been circulated separately and is available to all Members of the Council at: [Budget 2022/2023 - Impact Assessment \(devon.gov.uk\)](https://www.devon.gov.uk/budget-2022-2023-impact-assessment)

### **13. Legal Considerations**

The lawful consequences of the recommendations have been considered in the preparation of this report.

With the condition of parts of the network there is likely to be an increase in user dissatisfaction and complaints which could lead to an increase of challenges to the Authority under Section 56 of the Highways Act.

### **14. Risk Management Considerations**

The proposals contained in this report have been assessed and all reasonable actions are taken to safeguard the Council's position. Inability to undertake sufficient planned and general preventative maintenance work at the optimum time will result in an increased depreciation to the highways asset. This will lead to increased deterioration and defects and consequently, increased repair costs with potential for claims, which will put pressure on revenue and staffing budgets.

Where risks have been identified which could disrupt the capital programme by causing higher than anticipated costs or delays, such as those associated with cost, inflation, Covid-19 or inclement weather, the implications have been accounted for in preparing this report. This includes developing long term programmes and the provision for reasonable contingencies in the estimates for capital highway and bridge maintenance schemes.

### **15. Public Health Impact**

The cumulative reduction in budgets could have an impact on public health with reduced maintenance effecting sustainable travel alternatives, and potentially more injuries resulting from crashes, trips and falls, however the recommended approach limits this risk, by targeting investment.

### **16. Reasons for Recommendations and Conclusion**

It is important to report to Cabinet on the performance of the highway network.

The DfT capital settlement for 2022/23 provides funding for capital maintenance of highway assets and this report sets out proposed programmes to optimise their availability and safe use for the travelling public. Approval of schemes and programmes of highway maintenance will enable the delivery of the 2022/23 plan to

proceed.

The report alerts Members to the fact that Government provides insufficient capital funding to meet all network maintenance needs. However, the proposed programme is designed to make best use of the available financial resources using the Cabinet endorsed Asset Management approach.

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Electoral Divisions: All

Cabinet Member for Highway Management: Councillor Stuart Hughes

Local Government Act 1972: List of Background Papers

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Background Paper	Date	File Reference
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Nil

County Road Highway Maintenance Capital Budget Programme 2022 23 and the On Street Parking Account 2022 23 - Final



Appendix 1 to HIW/21/19

Road Condition Indicator (RCI) by Year

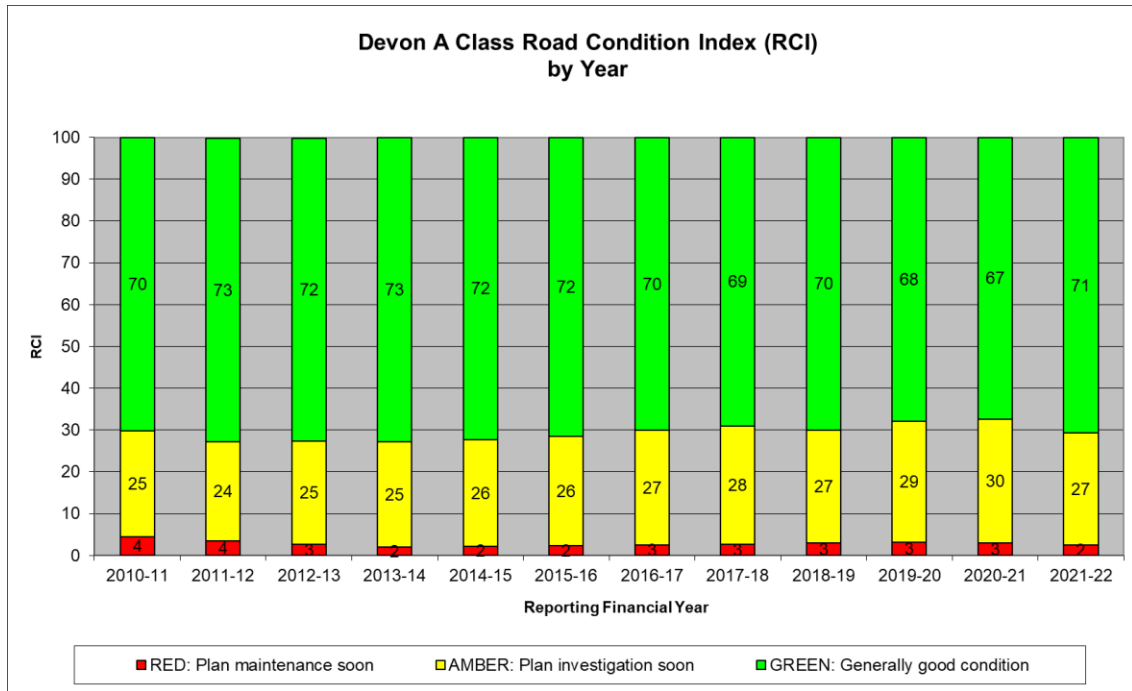


Figure 1

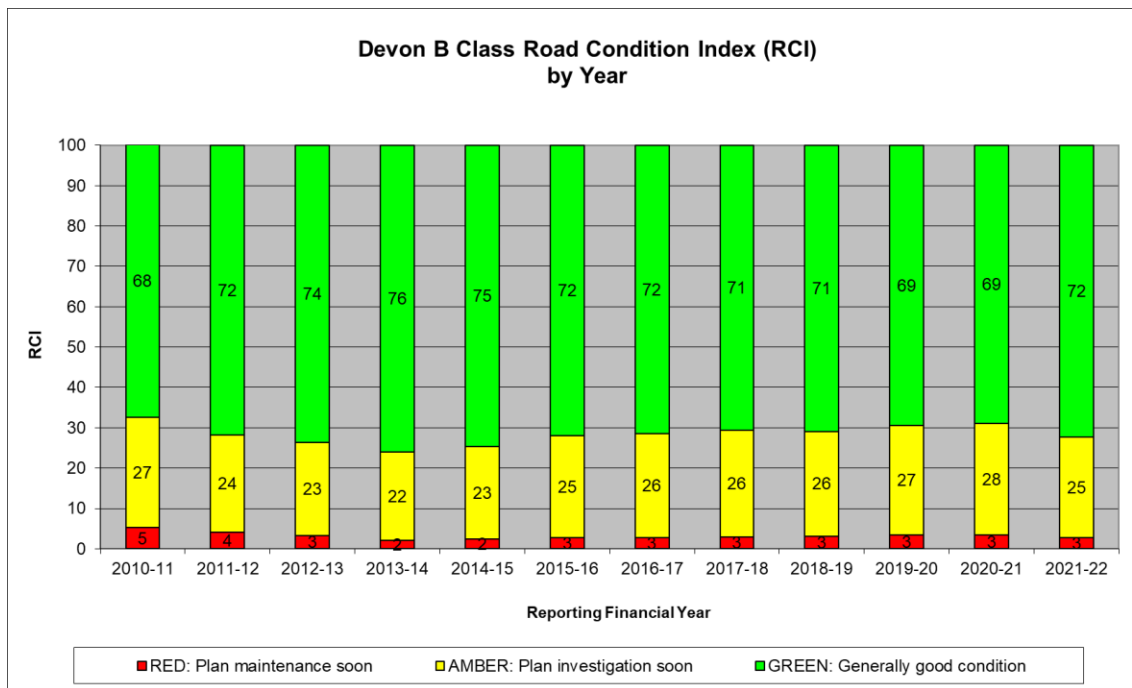


Figure 2

Appendix 1 to HIW/21/19 continued

Road Condition Indicator (RCI) by Year (continued)

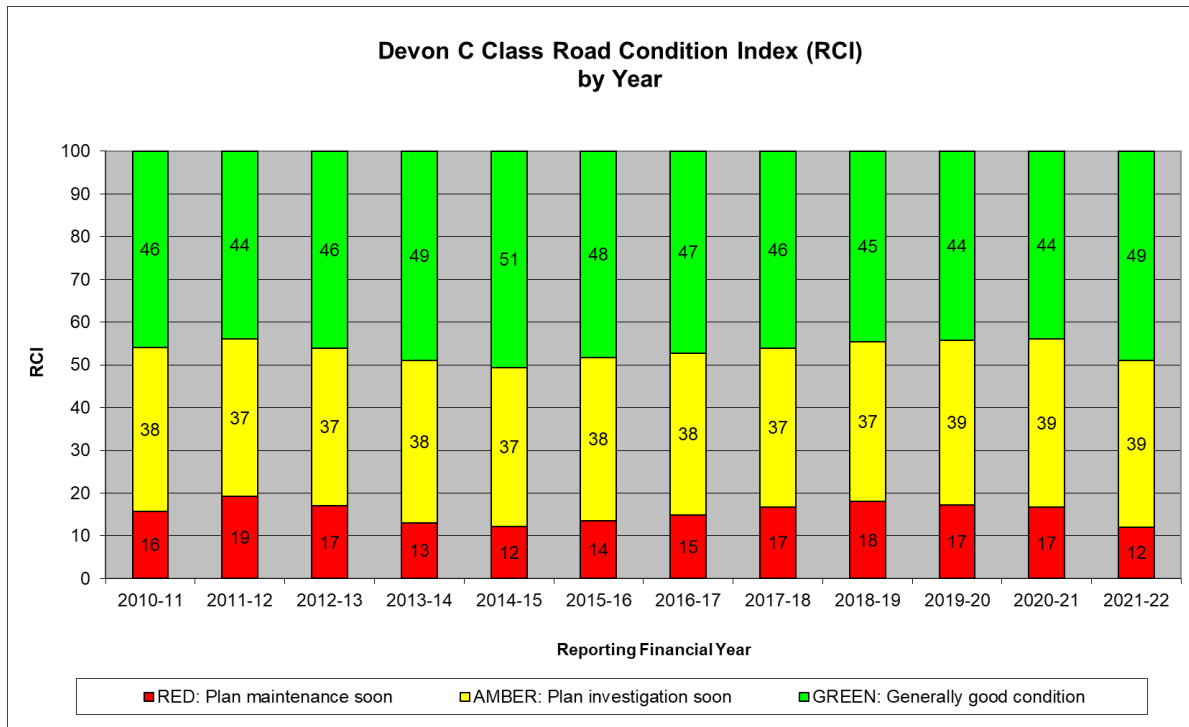


Figure 3

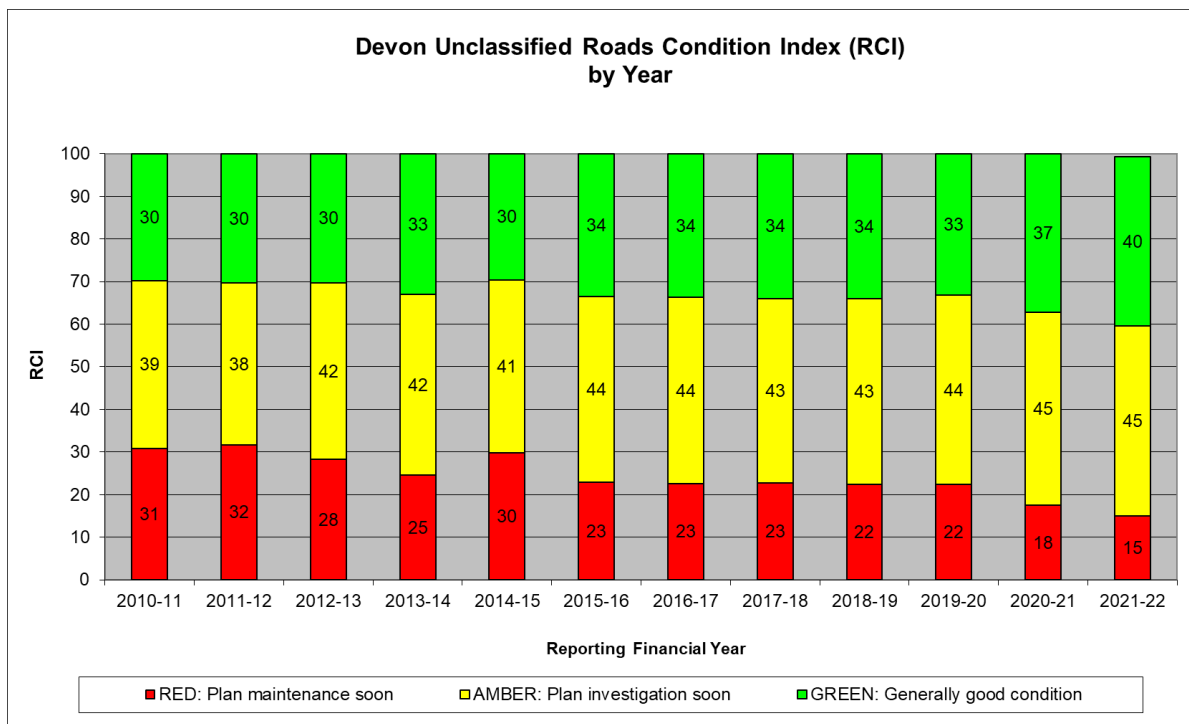


Figure 4

## Appendix 2 to HIW/21/19

### Highway Structural Maintenance Programme 2021/22

Function	Projected £000's
<u>Principal Roads</u>	
A Roads	5,634
A380 Teign Viaduct to Ashcombe Cross	3,244
A379 Slapton Line	0
SCRIM Remedial Works	2,019
<u>Non-Principal Roads</u>	
Non-Principal Road Recovery Programme	3,787
Preventative Programme (surface dressing & microasphalt)	7,872
Pre-Patching for 2021/22 & 2022/23 Preventative Programme	4,140
<u>All Roads</u>	
Doing What Matters	7,974
Highway Improvements Triage Patching	4,100
Dragon Patcher	1,750
Joint Sealing	244
Wet/Dry Collision Sites	10
High Skid Resistance Surfacing Programme	408
Carriageway Condition Surveys	304
Fixed Contract Overhead Charge	2,850
Material Testing	250
Scheme Delivery Group	750
Footways	1,256
Cycleway, PROW & Unsurfaced Roads	1,300
Road Restraint Systems Upgrade Strategy	737
Drainage	1,268
Gully cover replacement	270
Cattle Grid Structural Repairs	146
Extreme Weather Resilience Contingency	365
Surface dressing scheme design	400
Road Weather Station Renewal Programme	105
Highway Lighting Column Upgrades	1,519
Highway Lighting LED replacement	2,410
Traffic Signal Replacements	1,380
Traffic signal maintenance specific grant	210
NOCC Improvements CCTV Upgrade	100
Depots	627
Minor Traffic Management Improvements	50
<b>HSM Projected Spend Total</b>	<b>57,879</b>
<b>Allocation 2021/22</b>	<b>58,816</b>
<b>Projected variance</b>	<b>-937</b>

## Appendix 2 to HIW/22/19 continued

Projected carry forward request explained as follows: -

LTP/Potholes Fund overprogramming (including bridges projected under in appendix 3)	-250
A379 Slapton Line	209
Street Lighting LED C/F to 2022/23	2,360
Total projected variance as at month 11	2,319

## Appendix 3 to HIW/21/19

### Bridge Assessment and Strengthening Programme 2021/22

Function	Projected £000's
Bridge Strengthening	1,169
Retaining Wall Strengthening	3,222
Major Refurbishment	481
Minor Refurbishment	1,652
Joints and Bearings	141
Sub-Standard Parapets	405
Bridge Safeguarding	103
Bridge Assessments	318
Principal Inspections	468
Scour Assessments / Protection	56
Post Tensioned Special Inspections	192
Low Head Room Signage	60
Management of Sub-standard Structures	15
Rockface Management	188
<b>Total BAS projected spend</b>	<b>8,470</b>
<b>BAS Allocation 2021/22</b>	<b>9,852</b>
<b>LTP projected under (included in the table above)</b>	<b>-1,382</b>

## Appendix 4 to HIW/21/19

### Highway Structural Maintenance Programme 2022/23

Function	Budget £000's
<b><u>Principal Roads</u></b>	
A Roads	7,000
SCRIM Remedial works	2,011
A379 Slapton Line	209
<b><u>All Roads</u></b>	
Local Asset Programme	13,485
Preventative Programme 2022/23	5,000
Gully cover renewal	150
High Friction Surfacing	400
Road Restraint Systems	600
Wet/Dry Collision Sites	100
Carriageway Condition Surveys	350
Depots	600
Resilience Contingency	673
Scheme Delivery Group	750
Scheme Design	400
Investigation and Testing (Materials Laboratory)	250
Dragon Patcher	2,200
Highway Improvements Hand Patching	4,354
Cycleway, PROW & Unsurfaced Roads	1,750
Road Weather Station Renewal Programme	100
Highways Lighting Column Upgrades	1,500
Highways Lighting LED	3,220
Traffic Signal Replacements	1,400
Traffic signals maintenance DfT specific grant	290
Minor Traffic Management Improvements	500
<b>HSM Programme Total</b>	<b>47,292</b>

## Appendix 5 to HIW/21/19

### Bridge and Structures (BAS) Capital Maintenance Programme 2022/23

Function	Estimate £000's
Bridge Strengthening	3,080
Retaining Wall Strengthening	2,250
Major Refurbishments	1,175
Minor Refurbishments EDG	650
Minor Refurbishments NHT	100
Joints, Bearings & Waterproofing	200
Sub-Standard Parapets	350
Bridge Safeguarding	100
Bridge Assessments	275
Principal Inspections - Bridges	350
Principal Inspections - Retaining Walls	100
Scour Assessments / Protection	100
Post Tensioned Special Inspections	150
Low Head Room Signage	50
Management of Sub Standard Structures	10
Rockface Management	60
<b>Total BAS Allocation 2022/23</b>	<b>9,000</b>

**Appendix 6 to HIW/21/19****On-street Parking Account (OSP) 2022/23**

<b>Function Narrative</b>	<b>2022/23 Budget Allocation £</b>
Transport Co-ordination Service: Bus, Rail, and Community Transport Support	2,118,000
Civil Parking Enforcement road signs & road markings	225,000
Traffic Management Plans	25,000
Cyclical Maintenance for the purposes of Environmental Improvement	1,700,000
Traffic and Parking IT Systems	30,000
Safety Camera Partnership	10,000
Real Time passenger information	45,000
Variable Message Signs	10,000
Road Safety Improvements - Reactive	50,000
Park & Ride business rates / minor site maintenance	71,000
Country Parks	219,000
<b>Total Other Expenditure</b>	<b>4,503,000</b>