

# Wiltshire Highways Contracts

## ANNUAL REVIEW OF SERVICE 2023



Wiltshire Council  
Where everybody matters

AtkinsRéalis

MILESTONE  
INFRASTRUCTURE  
A part of MGroupServices



# Wiltshire Highways Contracts

## ANNUAL REVIEW OF SERVICE 2023

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## 1. Introduction

Wiltshire Council manages over 2800 miles of road, 3.9million square metres of footway, and assets including almost 1,000 bridges and structures, approximately 50,000 streetlights, illuminated signs and bollards, and over 200 traffic signal controlled crossings and junctions. This infrastructure is vital to local residents and businesses, and it is important that it is kept in safe condition.

Wiltshire Council has contracts with AtkinsRealis, Milestone Infrastructure and other specialist contractors to help deliver the highway service. This review covers the period January 2023 to December 2023. It has been prepared as a joint report between the Council and the main service suppliers.

The Council continues to apply asset management principles to the highway network and to ensure that the performance of the contractors involved in delivering the service is appropriate to keep the network in a safe condition and to ensure value for money.

### Part 1 - Overview

## 2. Milestone Infrastructure Ltd – Highways Term Maintenance Contract



Milestone Infrastructure, a part of MGroup Services, manage and maintain the largest portfolio of highway maintenance contracts in the UK, covering more than 50,000km of strategic and local highway network. As a leading service provider to local authorities, Milestone Infrastructure undertakes the management, maintenance and improvement of the built environment across a national portfolio of term contracts.

Milestone Infrastructure was selected as the lead provider for the Wiltshire Highways Maintenance service and commenced delivery of the contract on 1<sup>st</sup> April 2024. This includes the delivery of a vast variety of vital services for Wiltshire Council including planned and reactive highway maintenance, winter precautionary salting, emergency response, cleaning and emptying gullies and drains, street lighting installation and maintenance, bridge repair, traffic management and safety schemes along with ensuring Wiltshire's 20 Parish Stewards continue to work closely with towns and parishes in fixing small highway issues in their respective communities.

Milestone Infrastructure has delivered a good quality of service over the past 9 months and has established a strong team with a commitment and drive to delivering a high quality of highway maintenance throughout the contract. Milestone's focus on pothole repairs over the first few months, together with the introduction of patching gangs later in the year has driven the numbers of outstanding defects down and helped provide some longer term resilience to the network. During the last year Milestone Infrastructure has delivered on several key projects aimed at enhancing the day to day lives and welfare of residents in Wiltshire. These include several footway projects such as Newtown Trowbridge, Elm Row Rushall and Goose Street Southwick. Some more notable accomplishments within our footway delivery would be Abberd Brook Calne, Sutton Veny and Parliament Street Chippenham in which we have enhanced the footways for school access and provided the community with shared paths and cycle links to ensure safer school travel for children along with better access for cyclists and those using mobility aids.

Milestone Infrastructure is making strides in developing a more environmentally friendly way to work in the highways industry with the introduction of HVO at our depots. This, along with the introduction of a number of electricity powered tools and equipment and reduced carbon materials shows our commitment in supporting Wiltshire with their pledge to become carbon neutral by 2030.

*Ellie, our Carbon and Environment Advisor, and Mark, our Supervisor at Chippenham, with the introduction of HVO at our Chippenham depot.*



This is Milestone Infrastructure's first year into a five year contract. In that time we have delivered high standards in the general maintenance of Wiltshire's highways, large and small projects, on environmental commitments and meaningful employment of local and ex-military personnel.

### **3. Atkins – Highways Consultancy Contract**

**AtkinsRéalis**



The Wiltshire Highways Consultancy Contract was awarded to AtkinsRéalis in December 2019. AtkinsRéalis is one of the world's most respected design, engineering and project management consultancies, helping to plan, design and enable major capital projects, and provide expert consultancy that covers the full project lifecycle.

AtkinsRéalis designs and supervises road and bridge schemes for the Council from a local office at County Gate, Trowbridge. They manage the county's street lighting and traffic signals, as well providing technical information and advice on a wide range of highway and transport matters.

### **4. Other Suppliers**

Other Highways contracts currently in place are:

Machine Surfacing Contract – Tarmac Ltd

Surface Dressing and Micro Asphalt Contract – Kiely Bros Ltd

Arborist Services Contract – Upton Specialised Tree Services Ltd

Traffic Signal Maintenance – Telent Technology Services Ltd

The Tarmac contract undertakes the major surfacing works on Wiltshire's highways. This can involve the removal and replacement of damaged road construction or the overlaying

of an existing road with a new structural surfacing layer. Performance under the new contract has been good with a number of both large and smaller surfacing schemes completed to program. The contract started in June 2020 and is for 5 years with an option for a further 2 years based on performance.

Kiely Bros. Ltd. undertake surface dressing and micro asphalt works. This involves the overlaying of roads with a thin layer of surfacing to provide essential skid resistance and seal the road surface, which increases the life of the road. As this type of surfacing has no structural strength, it is applied to roads that are still structurally sound, usually avoiding the need to unnecessarily remove and replace the surface. Performance under this contract has been good and a large number of sites completed to programme. The contract started in July 2020 and is for 5 years.

The Uptons Specialised Tree Services contract allows the maintenance and planting of highway trees. The contractor is also responsible for the inspection and where necessary, removal of trees infected with Ash Dieback. This service is particularly important as there are around 125,000 Ash Trees on or adjacent to Wiltshire's highways. The Performance under this contract has been good with a considerable number of dead ash trees removed from the highway. This contract started in December 2020 and is for 12 years.

The Telent contract covers the maintenance, refurbishment of existing and the installation of new traffic signals. There are currently 145 signal-controlled pedestrian crossings and 65 signal-controlled junctions maintained under the contract. This contract started in July 2019 and is for 5 years with the option to extend it by up to 2 years. A one year extension to this contract was agreed in December 2023.

A framework Contract for Specialist Surfacing and Associated Highway Works is also in place to provide a list of suitable contractors to bid for smaller specialist highway works at short notice and so reducing procurement costs.

## **5. Contract Management**

The services provided under the highways contracts are managed by a number of Service Delivery Teams, which report to the Council's monthly Contract Management Meeting. The teams are headed by a Council officer and include representatives from the consultant and contractor. They are responsible for managing the delivery of the service, including project planning, programming and budget control. Sub-groups have been established to ensure effective environmental management and procedures, and to drive innovation and continuous improvement.

Performance of the key service suppliers is assessed by using a series of Key Performance Indicators, satisfaction surveys and by monitoring the delivery of undertakings given at the tender stage. The extension of the contracts depends on continuing satisfactory performance, which is reported annually to the Council's Environment Select Committee.

## **6. External impacts**

The extreme heat, flooding and severe winter weather during 2023 caused significant damage to some of Wiltshire's roads. This required additional resources to be deployed to address potholes and defects in the short-term, and in the longer term a significant investment and expanded programme of planned road surfacing is required.

The condition of the county's roads had been improving but was adversely affected by the extreme weather. The overall condition of Wiltshire's Classified Road Network (A, B and C Class Roads) remains similar to, or better than, the average road conditions in other South West highway authorities, and is better than the national average, but the condition surveys

have identified a slight decline in recent years.

Material supply and availability has improved compared to 2022.

## **7. Additional funding in 2023**

Funding for the majority of Highways works comes from annual grant allocations from the Department for Transport. To supplement this during 2023 the Council made available additional funding to help address the condition of the overall network. This consisted of:

- £150,000 pa over three years to tackle fly-tipping
- £200,000 per year for three years for white-lining
- £333,000 per year to help prevent flooding, directed to gully cleaning
- £500,000 for signing strategy (replacement of life expired or damaged signs)
- £510,000 for flyposting removal and enforcement, litter picking rural highways, cleaning multi-story car parks and communications

## **8. Highways Term contract**

Until 31<sup>st</sup> March 2023 these services were provided by Ringway Infrastructure Services. Following a robust procurement exercise, the new contract for these services was awarded to Milestone Infrastructure Ltd which started on 1<sup>st</sup> April 2023. The contract has a duration of 5 years with an option for a 5 year extension subject to satisfactory performance. The transfer of the contract to Milestone was covered by the TUPE Regulations and continuity of workforce has generally been achieved, with many previous Ringway employees transferring to Milestone.

An interim report covering Milestone's performance over the first 17 weeks of the contract was presented to the Council's Environmental Services Committee on 19<sup>th</sup> September 2023. Initial issues with the Parish Steward service were noted and actions to address have now been taken. Skills shortages across the construction industry and a shortage of suitable depot facilities did add to the challenges of establishing the new contract but these have been addressed by Milestone.

## **9. Social Value**

Social value has become an increasingly important activity within our contracts. Some examples of activities undertaken in 2023 are given below.

### Milestone example

Milestone Infrastructure are committed to supporting hard to reach groups within Wiltshire with employment and training in the highways industry. Milestone have partnered up with Building Heroes to support ex-military personnel gain meaningful qualifications and experience and help alleviate the difficulty transition into civilian life. Milestone Infrastructure have attended college visits to Salisbury and Trowbridge which comprised of a presentation from one of our ex-military employees along with a Q and A regarding the individual experiences. Whilst engaging with 'Building Heroes' Milestone Infrastructure have employed ex-military personnel within the Wiltshire contract.

*Over the new year Carlos and Rolfe, our Gully Tank Drivers, used their volunteer days to collect Christmas trees for Julian House*



### Tarmac Example

As part of the Term Maintenance Contract Tarmac undertake a number of social value commitments within Wiltshire. This year they made two food deliveries to the Storehouse Foodbank in Trowbridge, in July and December.



They donated £10,000, which the council awarded to Alabaré and Sanctuary Supported Living's John Baker House - both of which work under the Salisbury HOPE project.

They attended a Job Fayre at Wiltshire Council to promote Highway related jobs to school leavers.

They provided a surfacing team at no cost to carry out small improvements to Larkrise Community Farm in Trowbridge. Forty tons of road planings were provided from a nearby surfacing scheme and these were recycled in footways and access points around the farm, making it easier for students and staff to access gateways with wheelbarrows.

### Atkins example

Staff from AtkinsRéalis' Trowbridge, Swindon and Bristol offices have undertaken a range of activities in the local community. The STEM activities staff have undertaken include supporting careers' fairs in Corsham, Chippenham and Swindon, as well as supporting the Wiltshire Highway Service Careers Fair at County Hall in August. Over the summer, four work experience students also spent a week at their office in County Gate, gaining experience across a range of highway disciplines. AtkinsRéalis continued their annual support the Wiltshire Sports and Social Gala, as well as running a Military Insights Day from their office in Bristol.



## **10. Collaboration, Innovation, & Environmental**

The Collaboration Forum has been reestablished with Milestone replacing Ringway and including other members from the main highways contracts. The Forum facilitates discussion around Innovation, Environmental and Safety information to be shared between the members with a view to improving the level of service being provided across all contracts and keeping employees safe.

One of the first activities coming from the Forum was the holding of the Wiltshire Highways Sustainability event held at County Hall on the 21<sup>st</sup> November 2023. This event included presentations from suppliers and the main contractors on how they are tackling reductions in Carbon within their business processes and products. The event included trade stands to allow attendees to fully engage and discuss in further detail the presentations made. Feedback from those attending the event was very positive.

## **11. Staffing Resource**

Throughout 2023 staff resource, recruitment and retention has been a continuing concern. The Highways service has been carrying a high number of vacant posts with recruitment activities failing to attract suitable candidates. Pressures on existing staff have therefore remained very high. Research has identified a general skills shortage across the construction industry with shortages affecting Local Authorities, Consultants and Contractors in equal measure.

To help address these issues, as well as investing in the Apprenticeship programme outlined below, a revised approach to the way in which vacancies are advertised has been adopted with a more targeted approach towards specialist Construction publications and websites with a bespoke landing page for Highways having been created on the Councils website.

A number of further recruitment campaigns and events are planned for 2024 to try and help address the issues.

## **12. Institution of Civil Engineers (ICE) Training Scheme**

Because of the shortage of skilled engineers and the difficulty of recruitment, the Council has established an apprenticeship programme. The programme is supported by a training scheme, approved by the Institution of Civil Engineers (ICE), that is managed by the major highway projects team.



There are fourteen apprentices in the highways team, of which seven are completing their civil and environmental engineering degree apprenticeship with the University of the West of England (UWE) and the ICE. An additional three apprentices have already completed their degree apprenticeship and are now fully qualified engineers incorporated with the ICE. They are now supporting other apprentices who are working towards completion.



As part of their development we arrange site visits for our apprentices. The photo above shows a site visit to Salisbury River Park.

## Part 2 - Detail

### 13. Highway Major Maintenance

Wiltshire Council maintains over 2,800 miles of road. The Council is committed to the good management of the highway asset and has been implementing good asset management principles for several years. The Council's Highways Infrastructure Asset Management System (HIAMS) has been used to develop a forward programme of schemes for future years, which has been circulated to Area Boards for comment.

Technical data, including surveys by vehicle mounted lasers, is used to assess road conditions to prioritise sites for treatment. Road safety is the priority, and maintaining adequate skid resistance on the busy high speed roads is vital.



The Council has continued investment to improve the condition of Wiltshire's roads in recent years, with a view to reducing the maintenance backlog. The programme of road surfacing work is predominantly designed and supervised by Atkins, with most of the surfacing work carried out by Tarmac and Kiely Bros with support from other specialised contractors.

Preventative asset management practices continued to be applied in 2023, using carriageway condition survey data to identify potential schemes, leading to more effective management of the network.



*Wiltshire Council is making a major investment in improving the condition of the county's roads.*

Many road surfacing schemes were undertaken in 2023 to improve the condition of the county's roads. Over 106 Km of road and footway were resurfaced successfully with a good quality of workmanship and traffic management.

	Resurfacing	Surface Dressing	Retexturing	Footway Resurfacing	Total
Length treated 2023 Km	31.8	62.8	9.15	2.4	106.15

A programme of surfacing work was undertaken by the Council's contractor Tarmac to strengthen and resurface roads across the county.



*The programme of road resurfacing is improving the strength and surfaces of the county's road network.*

The Council carried out an extensive programme of surface dressing (tar and chippings) on parts of the rural road network during the summer. This comparatively inexpensive treatment prolongs the life of the road, improves skid resistance and protects the structure of the road. The work was carried out for the Council by specialist contractors Kiely and was to a high standard.



*An extensive programme of surface dressing helps seal and protects the county's rural roads, and improves skid resistance.*

The overall condition of Wiltshire's Classified Road Network (A, B and C Class Roads) remains similar to, or better than, the average road conditions in other South West highway authorities and is better than the national average. However, the condition surveys have identified a slight decline in recent years and whilst the condition of the county's roads had been improving, the network was adversely affected by the prolonged extreme weather and deterioration was accelerated in some locations.



Before

After

*As well as resurfacing main roads, the programme of surfacing work in 2023 also included improving the condition of the county's minor roads*

The performance of all of the companies delivering road maintenance in Wiltshire has been good this year.

### Reconstruction

Wiltshire roads are being impacted by the effects of climate change. Reconstruction works were undertaken on 7 sites which were showing damage as a result of changes in the water table.



Examples on of longitudinal cracking

### Additional Pothole Funding (DfT £3.6m)

The additional pothole funding financed surfacing repairs to 5 sites which had generated a high volume of customer reports and pothole repairs over a three-year period.



Before

After

Before

After

The funding was also used to fund preventative maintenance works by surface dressing an additional 27km of carriageway at various locations across the County.

### Carriageway Repairs

It is important that serious defects are treated promptly to keep the roads safe. Ringway (until the end of March) and Milestone (since April) operated three Pothole teams to respond to urgent issues, and Tarmac has been operating a team to carry out larger surfacing repairs.



*Pothole repairs often do not look attractive, but it is important that the repairs are made immediately in order to keep the road safe.*

As well as filling 14,891 potholes in 2023, and resurfacing 94km of roads, the Council also carried out 3,886 square metres of localised road repairs. This programme of filling potholes, repairing carriageways and other treatments continues throughout the year to keep the county's roads in safe conditions.



Before

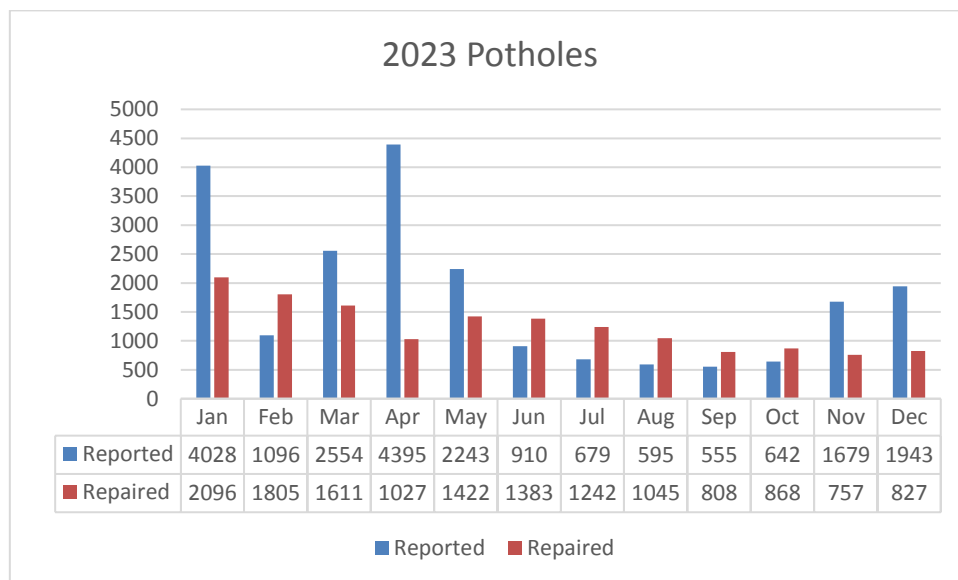
After

*Localised repairs were carried out at many areas where sections of road were in poor condition.*

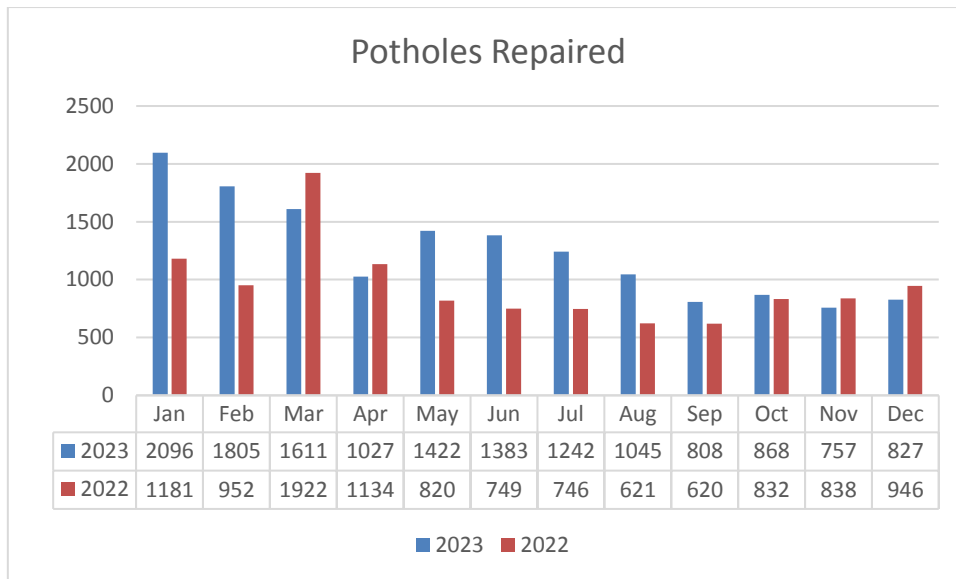
It should be noted that the best approach is to prevent serious deterioration of the roads by the timely resurfacing of those roads in poor condition. Unfortunately, it is not possible to resurface every road immediately, and work has to be prioritised, with arrangements made to deal with defects as they arise.

### Road Repairs and Potholes

The number of pothole reports from the public were higher at the beginning of 2023 due to the winter weather. The pothole gangs supported by the parish stewards, were able to continue making carriageway repairs as usual during the winter using mobile software to receive work and record repairs on site.



The number of potholes repaired on the network increased in 2023 compared to 2022. 14,891 potholes were repaired in 2023 compared with 11,361 in 2022.



### Footway Repairs

A programme of footway repairs has been carried out in 2023. Overall, 2.4km of footway works have been completed. The implementation of the New Term Maintenance contract and close down of the old contract meant resource was deployed into other areas. As such some delay in the footway resurfacing programme resulted in fewer schemes being completed in 2023 than in previous years.



*A programme of resurfacing and renewal is underway to improve the condition of the footways.*

### Verge Repairs

Rural verges are susceptible to damage during wet weather, especially when they are overrun by heavy or wide vehicles. There was no programme for verge repairs in 2023 due to the implementation of the new Term Maintenance Contract and lack of internal resources to manage the works programme.

However this programme will restart in 2024/25.

## 14. Local Highway and Footway Improvement Groups (LHFIGs)

The LHFIGs were introduced in April 2022 to take over from the long running Community Area Transport Groups (CATGs) to support local decision making across a wider remit with an increase in budget, supported by additional staff, following a review by the Environmental Select Committee

The wider remit has led to an increase in the number of new requests with over 420 being received during the year. Unfortunately, recruitment of additional staff has only been partially successful in dealing with this increase in workload leading to some difficulties in delivering schemes and addressing concerns being raised by the groups. Those staff supporting the LHFIGs are aware of this and continue to work hard to support the groups.

### LHFIGs & Substantive LHFIGs

More than 180 locally prioritised schemes have been delivered, including dropped kerbs, along with various 20mph Speed Limits, Traffic Signing, Road Marking and Speed Indicator Devices infrastructure projects.



Alongside these projects, delivery of Substantive LHFIG schemes have also taken place to provide new footways in Quidhampton and Rushall, and changes also taking place to provide improved pedestrian facilities in Westbury, Tidworth and Holt. Delivery of the scheme in Westwood was unfortunately halted due to the impact of Storm Babet, and completion of the outstanding elements is scheduled for Spring 2024

Design work has also taken place to deliver the approved scheme for Lacock, and Berryfields Road, Melksham with work programmed for 2024.





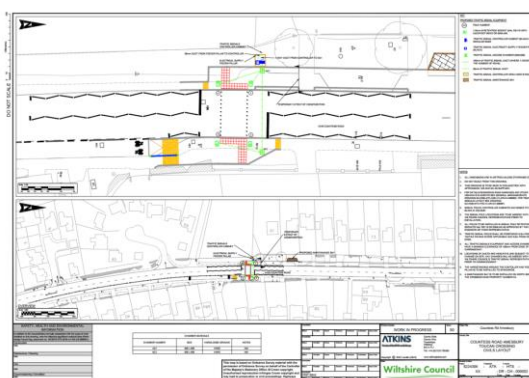
## 15. Traffic Engineering

2023 saw the delivery of a number of traffic engineering and safety schemes. The Council's Traffic Engineering team have worked with Atkins, Ringway and Milestone to plan and deliver a range of projects for the local communities and continued the good work with the Local Highway and Footway Infrastructure Groups (LHFIGs), as well as other schemes funded from the Integrated Transport Block, DfT Active Travel Fund, Future High Street Funds, Developer contributions, and the Councils allocation to enhance Road Markings and Traffic Signs across the county's road network. The schemes have ranged in size and complexity from simple sign installations through to more complex road safety and cycling schemes.

### Active Travel



No dedicated funding to deliver Active Travel schemes had been secured for 22/23, however funding was secured for the delivery of Active Travel Schemes in 23/24 for the A345 Countess Road, Amesbury; Trowbridge Road, Hilperton; and to assist with the Environment Agency's River Park Scheme in Salisbury. The Traffic Engineering Team have been working with its consultants Atkins to develop these proposals for installation in 2024.



### Traffic Management

A Substantive asset improvement scheme to upgrade the existing traffic signal-controlled equipment at Harnham Gyratory, Salisbury was undertaken in spring 2023.. This involved upgrading the controller, and replacement of all the signal heads and push button controls. The junction had been routinely failing due to the age of the equipment resulting in long periods where no control took place, making it increasingly difficult for vulnerable road users. The works were carried out with minimal disruption to motorists using well-planned temporary traffic management measures in the form of SRL Urban 24 temporary traffic

control, the first time this had been used and mimicked the operation of the permanent signals to keep traffic delays to a minimum.

The works were carried out by a variety of the Council's contractors (Telent, Milestone, Atkins) working collaboratively to deliver the scheme.



In addition, refurbishments of pedestrian's crossings on the A338 in Tidworth, and Oxford Road, Calne were completed. The works included the replacement of all signal equipment, new street lighting and full carriageway resurfacing (where required) together with new road markings and road studs.



### Taking Action on School Journeys

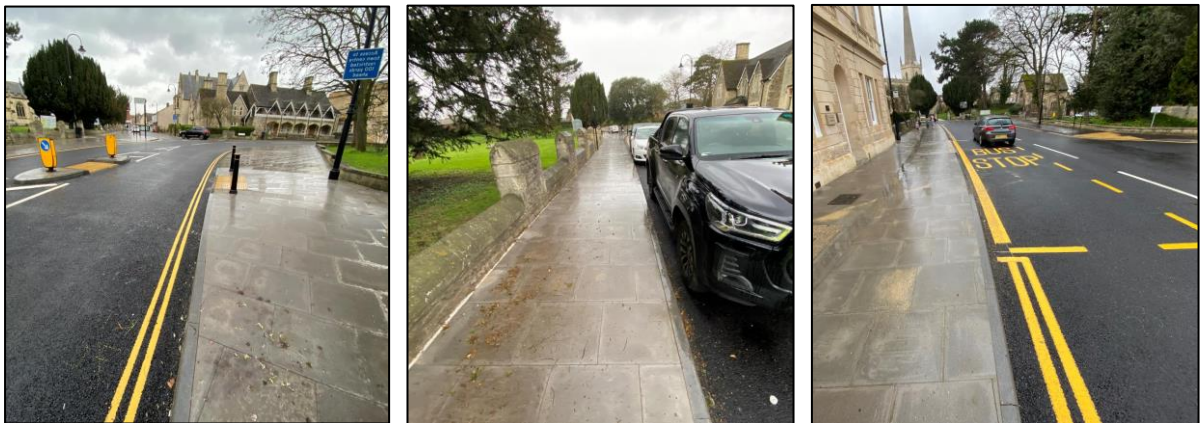
Work to replace the existing Zebra controlled pedestrian Crossing in Newtown, Trowbridge with a signal-controlled crossing took place in the school summer holidays, enabling children to return to the new school year and utilise the facility. Completing during the summer holidays enabled a full installation and resurfacing to take place and ensured that delays to road users was minimal and school children weren't inconvenienced on the walk / scoot to school.

Other schemes which took place in 2023 included improvements to routes in Broad Hinton, and design work for projects in Trowbridge and Corsham scheduled for early 2024.



### Other funded schemes

Work has also continued on the Trowbridge Future High Street Fund Highways element with the completion of the junction alterations at Church Street and Union Street. This project seeks to remove the existing traffic signals and reallocate the space to pedestrians providing an improved gateway into the Town Centre for pedestrians.



The second phase was also completed, which improves the Castle Street approach to the town centre. Split across two phases, it provides a significant enhancement to the areas which links the cinema and restaurants from the centre of town. The southern section has been transformed utilising a resin bound material, new bus shelters with living roofs, and substantive planting areas designed by a local landscape designer. The northern section has utilised paving slabs and innovative imprinted tarmacadam, coloured to match. All of which have been complemented with the resurfacing of the carriageway through the entity of the scheme.



Additionally, design work has been ongoing throughout 2023 for the third and fourth phase of the enhancements, which begin on site in early 2024. Also in development are the works associated with the wider public realm improvements through the Town Centre.



## Road Markings

Extra funding from the Council was made available in 2023 to allow an extended programme of road marking refurbishment to be undertaken. Priority continues to be given to centre line remarking on rural high-speed roads together with safety critical markings such as those at pedestrian crossings, mini roundabouts and give way lines.

The installation of road markings typically takes place between the spring and early autumn due to the requirement for dry and clear road conditions. Due to drier conditions, the Council extended its 2023 lining programme to the end of November.

Our centre line refurbishment work has been concentrated mainly in the South of the County this year as the Northern area was prioritised last financial year. Routes which have received attention include the A345, A338, A30, A27, A350, A360 B3092 and B3079. Funding remains available to pick up further sites and if weather conditions improve during March we hope to treat some of these before the end of the financial year.

Between 1<sup>st</sup> April – end of November 2023, the council's road marking contractor completed routine road marking refurbishments at 1146 sites across the network, with two gangs working full time, day, and night, in the county.

After a successful trials of methyl methacrylate (MMA) cold lay road markings in 2022, the council initiated a separate MMA programme and completed work at over 50 sites countywide. MMA markings are typically usually used in high traffic areas and high stress locations, such as mini roundabouts and thanks to their hard-wearing qualities, the lifespan of the markings is lengthened, ensuring that fewer reapplications are needed. The markings will continue to be monitored for performance during 2024/25, with a view to expanding its wider use in the future.

### Traffic Signing

Many signing improvement schemes have been introduced across the County this year, with several of these being funded through the LHFIG and Local Safety Scheme programmes, as well as third party contributors including Town and Parish Councils, developers, tourism outlets and other private enterprises.

An additional £500K funding was allocated for 2023/24 by the Council for sign replacement, which has facilitated comprehensive signing reviews on the A354, A362, A365 Spa Roundabout and A338 Bodenham Bypass. In addition to these larger projects, there has been a full programme of sign replacement across the County. There are currently more than 400 instructions for routine maintenance of life expired assets, including warning, regulatory, informatory and directional signs across the highway network with our contractor Milestone operating two full gangs to ensure delivery. Working closely with passenger transport team, over 60 sites across the county have been identified for replacement bus stop poles, flags and timetables.

## **16. Bridges and Structures**

Wiltshire Council maintains approximately 1,000 road bridges and a similar number of Rights of Way bridges. The Council undertakes general inspections and routine maintenance on these structures in accordance with the national codes of practice.

In 2023 approximately 600 bridges were inspected, predominantly in the south of the county. Bridges are inspected biennially with the north and south of the county being undertaken in alternate years. Based on nationally recognised bridge condition indicators the Councils bridge stock is currently rated as 'good'.

Milestone provide one full time bridge gang which carries out minor maintenance works. Additional resources and sub-contractors are called upon to complete major maintenance or more specialist schemes.



*Specialist sub-contractor  
completing joint  
replacement works in  
Salisbury*

During 2023 Wiltshire Council in partnership with Atkinsrealis and Milestone have undertaken works at a number of locations, including Harnham Bridge, Salisbury; St. Johns Footbridge, Steeple Langford ; A360 Shrewton, Salisbury; Kennet Bridge, Marlborough; Ford Bridge, Laverstock and the partial reconstruction of a retaining wall at Corsham.

In addition, routine maintenance works such as repointing masonry, timber parapet repairs, vegetation clearance etc were undertaken on bridges throughout the county.



*Corsham retaining wall  
before and after*

Atkinsrealis provide and prepare technical designs for the Structures major maintenance programme of works. They have been preparing schemes for delivery over the next two years for sites including Trowbridge, Heytesbury, Marlborough and Salisbury.

In addition, Atkinsrealis approve designs and monitor the site works of developer led schemes where structures are being introduced onto the network.



*Blackbridge Farm development,  
Malmesbury. Introduction of  
pedestrian bridge.*

Many of the rivers and watercourses in Wiltshire have environmental designations; these can often affect the timing of work, permissions required, and the methods used. A programme of work to keep the county's bridges safe is ongoing designs are being prepared for future schemes.

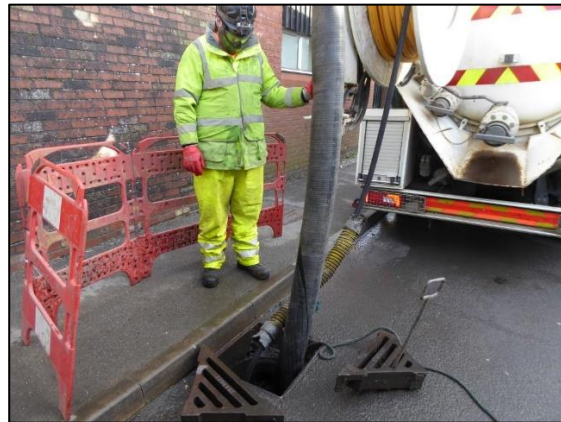
## **17. Drainage and Flooding**

A programme of drainage investigations, repairs and flood alleviation schemes was undertaken in 2023. The work is co-ordinated through the two Operational Flood Working Groups that include the Environment Agency, Wessex Water, other organisations and stakeholders, including the town and parish councils.

An additional £0.5m of funding from the Council was made available from 2022 to allow a programme of improvements to take place at known flooding sites. This work has started to progress well, with engagement with the Town and Parish Councils and local Area Highways Teams. Following Storm Babet the Drainage Gang were redeployed to undertake emergency flooding response works, include the A350 Beanacre, Melksham and Dauntsey, along with winter emergencies duties.

A specialist Drainage Investigation and CCTV Survey team working for Milestone, locate, clean, survey and map the underground drainage network. Survey and asset condition data collected from the drainage investigations and surveys is recorded for future reference. In total 25 sites were investigated with over 6400metres of drains surveyed with 20 of those sites requiring repairs. Some of these surveys inform reclaims from utility strikes that are progressed, recovering costs associated with damage and the recovery process. Atkins design, supervise and help prepare bids for many of the larger drainage schemes, many of

which are funded by the Environment Agency / DEFRA, with construction and survey work being undertaken by Milestone and their sub-contractors.



Design and feasibility work is progressing on a flood alleviation projects at Melksham, Dauntsey, Malmesbury, Salisbury and Amesbury which are being developed jointly with the Environment Agency.

Drainage improvements were undertaken at 26 locations including Ashton Keynes, Atworth, Bishopstone, Box, Bradford on Avon, Bulford, Castle Eaton, Chitterne, Clyffe Pypard, Coombe Bissett, Corsham, Ford, Hook, Kepnal, Landford, Lea & Cleverdon, Malmesbury, Melksham Without, Purton, Rode, Royal Wootton Bassett, South Wraxall, Southwick, Staverton, Warminster and Yatton Keynell. Activities also highlighted a number of damaged sections of pipes where costs were able to be claimed back from 3rd parties or utility companies.



## 18. Street Lighting

Wiltshire has over 53,000 street lights and illuminated signs which are managed by AtkinsRealis, with Milestone carrying out maintenance and improvement work.

Over 95% of the street lights throughout the county are computer controlled by a centrally managed street lighting system, which allows for flexibility in operation, remote monitoring of



energy consumption and automatic fault reporting to minimise the time between failure and repair.

Testing of both concrete and steel columns is being undertaken and a programme of removing and replacing life-expired columns continues in order to keep the county's lighting stock safe.

The roll out of standard LED Street lighting lanterns was completed in 2023. A number of heritage and bespoke lighting units are still waiting for installation and this is due to commence in April 2024.

Energy consumption has continued to reduce and consumption in 2023 was 5,325,210 KWh compared to 5,666,013 KWh in 2022. This continues to provide significant cost savings for the council as well a reduced maintenance costs as the LED units require replacement less often than the older units.

In 2023 the Council procured an upgraded street lighting asset management system known as Alloy. Testing of this system has been ongoing in 2023 and will go live in April 2024 taking over fully from the previous system, Mayrise. The system will provide a complete mobile working solution and allow for fault reporting and visibility of completion status in real time.



*Bespoke lanterns for Devizes  
Market Place*

## **19. Traffic Signals**

The Council's traffic signal stock is monitored and managed by AtkinsRéalis on behalf of the Council, with maintenance work undertaken by the Council's signal maintenance contactors Telent.

Telent respond to faults and damage following accidents and conduct pre-planned annual inspections and lamp changes. They also install new equipment, upgrade and refurbish existing signals sites as instructed and designed by AtkinsRéalis. A total of 813 reactive maintenance tasks and 184 switch-off tasks were issued for the contractor during 2023 and 97% of urgent faults and 94% of non-urgent faults were attended within the response times specified in the contract. 95% of urgent faults and 94% of non-urgent faults were repaired within the repair times specified in the contract.

92.4% of traffic signal sites now have remote monitoring and those sites with obsolete monitoring equipment are being upgraded as funding permits.

The cloud-based UTC system is operational and being expanded, with Bridge Centre and Ave La Fleche in Chippenham signals now connected. Sites in Royal Wootton Bassett and Salisbury were added in 2023 and the old UTC system was decommissioned. This technology enhances the network management capability of Wiltshire Council and improves accessibility for the system operators.

The upgrade and refurbishment of traffic signal equipment was completed at a number of key sites in Wiltshire including Oxford Road, Calne pedestrian crossing, Pennings Road, Tidworth pedestrian crossing and Harnham gyratory, Salisbury. A new Puffin crossing was installed at Newtown, Trowbridge to replace the zebra crossing.



*Newtown Trowbridge Puffin crossing replacing a previous zebra crossing*

Previously, the traffic signal heads at Harnham Gyratory were first generation LED (now obsolete) meaning spares and replacements were no longer available. To maintain safety at the site, it was decided that the heads and controller should be replaced in advance of the larger improvement scheme. The work to upgrade the signal heads and controller was completed using SRL's Urban 64 temporary lights which replicate the timings and operation of the permanent traffic signals. This reduces congestion at complex sites when compared to standard temporary traffic signals. This was the first time the Urban 64 setup has been used by Wiltshire Council and proved highly successful, with members of the public commenting '*fantastic well organised roadworks on the Harnham Gyratory, finished with very minimal disruption except on the odd occasion when lanes needed to be closed, well done to the contractors involved*'.



*SRL Urban 64 temporary lights  
in operation at Harnham  
gyratory*

A trial of non-destructive testing (NDT) was completed in 2023 to identify the condition of a sample of traffic signal poles and where necessary work was completed to replace them. Where a considerable proportion of the signal poles required replacement, the site was added to refurbishment programme to ensure best value from the traffic management, contractor's time and reduce future disruption to the road network. The trial will now be extended to all sites with ageing poles.

The Council continues to use and update the traffic signal asset management system (IMTRAC) for inventory and periodic inspections. The software is also used to help target funding to sites most in need of refurbishment and to develop a long-term strategy for renewing and upgrading the traffic signal stock.

In December information from IMTRAC was used to submit a second bid for Department for Transport funding through the Traffic Signals Obsolescence Grant (TSOG).

## **20. Trees and Landscaping**

The maintenance of trees and shrubs growing in the highway is managed by AtkinsRealis for the Council. This includes those in both urban and rural areas that have been planted in roads, pavements and grass verges, or that are self-seeded or natural growth.

Maintenance work is carried out by Upton Specialist Tree Services and includes felling dead, dying, dangerous trees and pruning for clearances for carriageways, cycleways and pavements.

During 2023, 450 locations were visited, and included removing a dangerous oak in Kington Langley B4069, crown lifting along all Bus Park and Ride bus routes in Salisbury.

There has also been an extensive pollarding programme undertaken in 2023.



Other requirements are to prune for visibility at junctions and to road signs, street lights, traffic signals and receptor clearance, prior to major maintenance surfacing schemes, to give access to overgrown and otherwise little used roads for refuse collection vehicles and school buses, to assist with the stability of steep banks, annual pollarding (removal of all trunk and crown shoots). Site clearance along the A3102 Safer Roads Scheme between M4 Royal Wootton Bassett and Melksham is due in early 2024.

There are also 50 verges protected for wildlife in the county that receive special management.

Approximately 125 trees have been replanted in 2023 and 1200m<sup>3</sup> of wood chip has been recycled to wood chip biomass.

## 21. Ash dieback

There are around 125,000 Ash Trees on or adjacent to Wiltshire's highways. Ash dieback is a fungal disease that can quickly cause the death of an Ash tree, which if left unattended will fall. Ash trees can grow to a height in excess of 30m, so this can present a hazard on the highway.

During 2023 survey work of the Group 1 road network (approx. 630 miles) was undertaken to update previous data and establish the current condition of the Ash trees and monitor the progress of the disease. The survey recorded in the region of 27,000 ash trees alongside the highway with a further 11,000 within woodland fringes with potential to fall on the highway if failure occurred. The survey used a risk based approach to identify those trees recommended for immediate removal, and removal within 6 months, 12 months and 24 months. Ash trees are still present, growing beside almost all the counties major roads. The survey has carefully identified the location, density and condition of these trees.

Overall numbers recommended for removal on the Group 1 roads within the next 6 months stands at a little over 8300 trees.

During 2023 approximately 3200 ash trees were removed with works taking place at over 120 locations across the County. Major works were undertaken on the A350 from Warminster to Shaftesbury, on the A346 Near Burbage, and on the A420 east of Ford towards Chippenham.

Over 2500 trees are being planted to replenish the tree stock that has been removed.

The Council has continued to engage with local landowners and through joint working many privately owned ash trees have also been removed at the same time as the highway trees, minimising delay and disruption to the travelling public.

Removal of infected ash trees will continue to be a major area of work in future years.





## 22. Local Highways

The Local Highways Service oversees regular and responsive maintenance tasks, such as patching up potholes, cleaning drainage gullies, and mowing rural verges. Furthermore, it manages various responsibilities related to the council's role as the highway authority.

A significant portion of these operational tasks is carried out through our highways term maintenance contract. In April 2023, there was a transition from Ringway to Milestone Infrastructure as the service provider. Managing such changes in contractors is a substantial undertaking, but the process has been successfully navigated, resulting in a transition with minimal impact on the quality of service delivered.

Scheduled safety inspections are carried out across the highway network at defined intervals, dependent on the category of road. In 12month period this equates to 24000 Km of carriageway inspected

The Local Highway's team has been experimenting with cutting-edge road asset technology that incorporates artificial intelligence to capture and document highway data. This AI-driven approach aids in maintenance and management decision-making for our road network by autonomously recognizing and evaluating assets, including pavement defects, signs, and the condition of lane markings. Additionally, the technology enhances the authority's capacity to defend against claims for third-party damage, all the while optimizing staff time more efficiently.

When skips or scaffolds are situated on the highway, it is essential to conduct checks to ensure their placement does not pose a safety hazard for road users. Each site requires a license, and a fee is levied by the council to cover associated costs. Over a 12-month period, the council grants more than 1100 skip/scaffold licenses across the network, reflecting a 10% year-on-year increase.

Despite a minor decrease in the commencement of housing development sites in 2023, the sector remains busy. In cases where developers request the Council to take over roads within these sites, the process is facilitated through a Section 38 agreement. The Local Highways Service oversees the supervision of construction activities, ensuring that the work aligns with the necessary specifications and meets the required quality standards before adoption.



Scheduled drainage cleansing is a regular practice, with around 84,000 gullies present on the highway network. Gullies on A and B roads undergo annual inspections, while those on C and unclassified roads are checked every three years. This results in approximately 42,000 gullies being attended to within a 12-month period. Apart from these gullies, numerous drainage channels (grips) carved into highway verges are recut on an annual basis.



Additional funding of £1m over 3 years enabled the introduction of an extra Vector/Jetting vehicle, which has significantly enhanced the service's capability to address blocked drainage systems.

The Parish Steward Scheme has continued to be a well valued service that is utilised by many Parishes. The change in term maintenance contractor has brought about some difficulties due to changes in personnel but the addition of a dedicated supervisor by our contractor has managed this.

Working closely with our term maintenance contractor, we have continued to deliver this service to a high standard with many compliments and very few issues.

Work has continued on refining our approach to the mowing of highway verges to improve biodiversity by altering our cutting schedules to allow wild flowers to self seed.



Where possible with routine maintenance tasks that require significant traffic management costs, we have been able to bring together a number of tasks such as verge mowing, sweeping, gully cleaning and other small maintenance tasks to maximise the utilisation of lane closures.



Reactive repairs to potholes present significant challenge, typically the pattern is for public reports to decrease through the summer and then increase during winter months. Over the last three years we have averaged between five and six thousand reports received from members of the public. When factoring in potholes that have been identified either from safety inspections that have been undertaken by highways staff or repairs that have been made as a “Find and Fix” by our contractor the total number can be double this. It should be also borne in mind that these numbers can fluctuate considerably as a product of weather conditions. Particularly wet and cold conditions will see a spike in numbers. January 2023 saw an increase from around 950 pothole reports in December 2022 to in excess of 4000 reports. An increasing trend that carried on for the first half of the year. A number of mitigating actions were taken, with Parish Stewards being taken off of program for a number of months.

The Local Highways Team has been actively engaged in responding to recent extreme weather events. The escalating frequency of high-intensity storms has made this a growing facet of the team’s responsibilities. Staff members are tasked with overseeing and coordinating our term maintenance contractor to address the impacts of these storms. This demands an agile approach from all involved, ensuring not only the timely execution of measures to mitigate storm effects but also the uninterrupted continuation of "business as usual" functions with minimal disruption.

## 23. Countryside Access

The Countryside Access Team oversees the maintenance and management of the County's public rights-of-way network, comprising approximately 6000km of byways, bridleways, and footpaths.

A team of six Countryside Access Officers handles the day-to-day responsibilities related to maintenance and management. They conduct maintenance tasks, interact with landowners, and collaborate with voluntary groups to enhance the overall quality of the network.

Through 2023 the team have continued to build on partnerships with voluntary groups to assist in the maintenance of the public rights of way network. A good example of what can be achieved is the SALS3 byway close to Old Sarum. Over a period of years, the route had become overgrown and impassable for equestrian users. In early January a team of volunteers supported by two Countryside Access Officers set out to address this issue.





In addition to duties performed as highway authority, definitive map and highway records officers are responsible for discharging the council's functions as surveying authority and commons registration authority and accordingly are responsible for maintaining the records of the network. The team also undertakes searches, for which a fee is payable, of these records. In the last 12 months some 6000 of these searches have been undertaken.

A substantial component of the team's workload involves the determination of definitive map modification orders. These orders pertain to cases where individuals or organizations seek to establish a right of way that is believed to exist but is not documented on the Definitive Map. The process is intricate and time-consuming, requiring extensive research of historical sources. Similar to many other local authorities, we currently have a considerable backlog of such cases to be determined, totalling 368.

Furthermore, the team is responsible for upkeeping the registers of commons and town and village greens. They handle applications to document town and village greens and to rectify entries in the commons register. These issues often generate local contention since, beyond documenting public rights, they can impede development or new land use.

A notable success has been the introduction of a "Hybrid" approach to conducting non-statutory public enquiries. This was an obligation imposed by the planning inspectorate and necessitated planning and experimentation prior to the enquiry, with five out of six public enquiries delivered this way. While the pandemic led to a drop off in workload, there has been a steady increase in demand and we have seen a return to pre-covid levels of activity with some 32 reports being authorised.

A considerable number of our rights of way are configured as towpaths for the canal network in Wiltshire. The team has consistently forged partnerships with various organisations involved in the maintenance and renovation of this crucial asset. This collaborative effort ensures the continued preservation and enhancement of these towpaths for the benefit of the community.

## 24. Winter and Emergency Response

The precautionary salting of Wiltshire's roads during the winter period of 2022/23 was carried out by Ringway using Wiltshire Council's vehicles under the supervision of the Council's staff. During periods of more severe weather like snow and ice local farmers and contractors across the County are also available to assist with clearing the local road network.

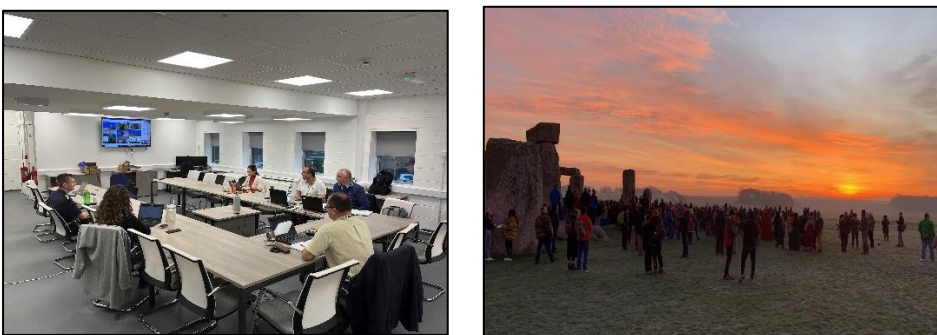
Over the 2022/23 winter period the Council treated the primary network 55 times and the secondary routes 26 times. Also refilling over a 1000 grit bins using 7800 tonnes of salt in the winter season.



The winter season also began with the introduction of some new facilities as the authority invested in upgrading and building new modern salt storage depots with an ongoing investment programme to support and deliver a strategic service.



The Highway Operations resilience team of duty managers are on call 24/7 throughout the year to deal with weather situations, highway emergencies also to support the emergency planning team and Local Resilience Form (LRF) as required when other emergencies occur anywhere in the County, they also assist and provide mutual aid to neighbouring authorities when situations require. They also oversee specialist operations like summer and winter solstice events and support to the emergency services.



The team dealt with 1543 incidents with support from a wide range of contractors, multi-agency partners and had 15 extreme weather events to oversee from cold weather, flooding to wind.



The resilience team work closely with all internal and external partners to prepare and plan for future weather and unexpected events.

## 25. Major Highway Improvement Schemes

The Major Highway Projects team has been progressing highway schemes which have received funding from various sources including the Department of Transport (DfT) and the Future High Streets Fund. The team works closely with others in the Council and is supported by Atkins, the council's term highways consultant, who provide specialist design services.

### A350 Chippenham Bypass (Phases 4 & 5)

Improving the A350 has been a longstanding priority for the council and a number of schemes are proposed along the route. Tenders were invited to select a contractor for the works to dual the remaining single carriageway sections of the bypass at Chippenham and improve Bumpers Farm Roundabout to reduce delays, especially for traffic leaving the industrial estate. Land is available within the existing highway to accommodate an additional carriageway and when the bridges over the bypass were originally built, they were constructed so that they could easily accommodate the additional carriageway.



*The dualling of the A350 at Chippenham will include improvements to improve safety and increase capacity at the Bumpers Farm Roundabout*

The Full Business Case was recently submitted to the Department of Transport to obtain the remaining funding for this £30m scheme, and it is expected that the main construction will start in the spring, and local contractor M. J. Church Ltd is currently undertaking some advance works.

### A350 M4 Junction 17

The M4 Junction 17 is the key junction providing access from the M4 towards the South coast, and the junction provides the vital link between the motorway network and the A350 connecting the towns in west Wiltshire, including Chippenham, Melksham, and Trowbridge. The preliminary design and assessment work for the scheme to improve the junction has been completed and the Outline Business Case has been submitted to the Department for Transport.

The scheme (£32m) will widen the approaches to the roundabout junction and provide additional traffic signal control to increase capacity and improve safety. We are working closely with National Highways who are responsible for the motorway and the slip roads to coordinate our works with their maintenance proposals. When the Outline Business Case and funding has been approved the necessary surveys and detailed design will be progressed.

### B4069 Lyneham Banks

In February 2022, a major landslide occurred on the B4069 at Lyneham Banks and the road had to be closed. The temporary closure of a busy B class road had serious knock-on effects, with traffic unofficially diverting on to local minor roads, creating road safety concerns.



*The extensive landslide at Lyneham Banks caused enormous problems in the area when a large section of the B4069 disappeared completely.*

Various options have been considered for reinstating the road and the preferred option is to construct a retaining wall to stabilise the hillside and the road foundations (£5m). The retaining wall would have an in-situ reinforced concrete capping beam supported on a single row of 600 mm diameter bored concrete piles with tension micropiles to provide additional lateral support to the retaining wall. The works include extensive surface water drainage and ground works both uphill and downhill from the road to reduce the risk of future slippage.



*A bored concrete pile retaining wall is the preferred option to stabilise the hillside and enable the B4069 to be reinstated. The scheme includes extensive drainage provision to remove surface and ground water.*

The detailed design has been completed and tenders have been invited for the construction of the scheme which should start in the summer.

### Fisherton Gateway

The Council was awarded government funding to deliver transformational projects to rejuvenate Salisbury City Centre. The Salisbury Future High Street Fund Schemes at Salisbury Station Forecourt (£5.3m) and Fisherton Gateway (£3.2m) will provide urban realm improvements to this key arrival point and route into the city.



*Following a public consultation last year construction has now started on the improvements at Fisherton Street.*

The scheme for Fisherton Street will provide an enhanced public realm and improved wayfinding to encourage tourists and visitors into the city centre, increasing dwell time and spend, and thereby providing a welcome economic boost to the various independent shops in the local area.



It includes widening pavements, introducing new street lighting, enhancing landscaping, improving street furniture and wayfinding, and introducing continuous footpaths at junctions to give pedestrians priority. The contractor, Milestone Infrastructure, started work in August 2023 and the scheme is expected to be completed this summer.

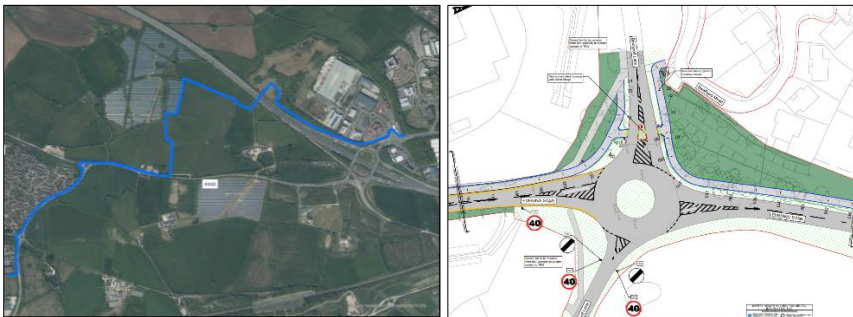




The scheme will provide significant transport improvements in the form of new bridges over the River Avon, enhanced and new pedestrian and cycle routes, as well as enhancements to the coach park. New segregated footpaths/cycle paths are being provided around the edge of Ashley Road Open Space and through Central Car Park to current LTN 1/20 Department for Transport standards. This is one of the first projects in the county that provides fully segregated facilities for pedestrians and cyclists. A new footbridge at the coach park has received funding from Active Travel England. Construction is progressing well and is programmed to be completed later this year.

### Royal Wootton Bassett to Swindon Cycleway

The Major Highway Projects team is working with National Highways to develop the Royal Wootton Bassett to Swindon Cycleway (£4.7m) which would provide a safe route for pedestrians and cyclists to cross the M4, avoiding the busy Junction 16. National Highways have provided funding to enable the scheme to be designed and arrangements are being made for the necessary land.

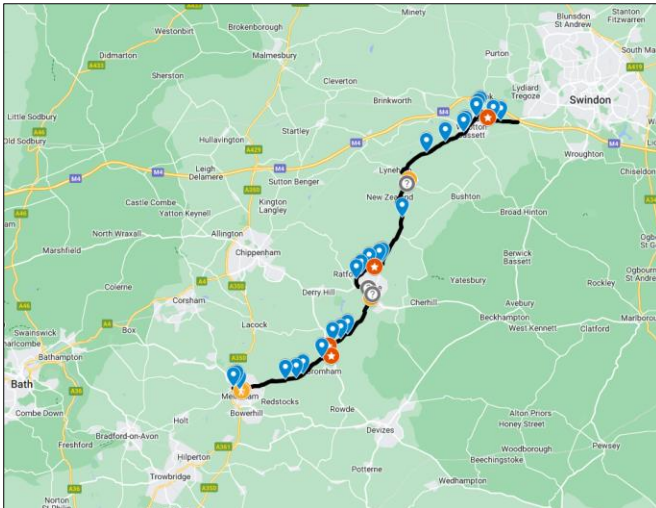


*The proposed Royal Wootton Bassett to Swindon Cycleway provide a safe route for pedestrians and cyclists to cross the M4.*

Construction will be dependent on land agreements and obtaining planning permission. In the meantime, we continue to work closely with National Highways and other partners on identifying funding opportunities to bring this scheme forward.

### A3102 Safer Roads

In March 2023 the Department for Transport provided £6.9m for safety improvements to the A3102 between M4 Junction 16 and Melksham, via Royal Wootton Bassett and Calne. The 35km route was one of the priorities identified nationally following analysis by the Road Safety Foundation.



*A range of safety measures are being developed for the A3102 between M4 Junction 17 and Melksham, including junction improvements, signing and road markings.*

The scheme will include a range of safety measures, such as improving signage and road markings, and redesigning some junctions. The first stage is to remove vegetation and self-seeding trees that have established in the verge to ensure sufficient forward visibility for driver safety and to ensure signs are unobstructed. The visibility from side roads will also be reinstated so that drivers have a clear view of on-coming traffic. This work is being carried out in the winter to avoid the bird nesting season.

The design work is progressing for the implementation of the various elements during 2024. The package of measures is being developed which will establish the most effective way to use the funding to reduce the risk and severity of collisions.

### A303 Stonehenge

Improvements to the A303 between Amesbury and Berwick Down are being promoted by National Highways. The scheme includes a tunnel at the Stonehenge World Heritage Site, a flyover at Countess Roundabout, and a bypass of Winterbourne Stoke.



*The Council has a key role in approving and being consulted on many aspects of the National Highways proposals for the A303 at Stonehenge.*

The Secretary of State has approved the Development Consent Order for the scheme, but it has been the subject of a legal challenge. Despite this the consultation and approval processes have continued. The council has a key role to play, especially regarding archaeology, ecology, flooding, rights of way, landscape, and other aspects of the scheme. The Council's responses are being coordinated by the Major Highways Team, and the council also has an interest in the local roads affected by the scheme, including the proposed junction improvements at Rollestone Crossroads and the future de-trunking of the existing road through Winterbourne Stoke.



National Highways hope to start construction this year, but this will be subject to the successful completion of the legal procedures and approvals.

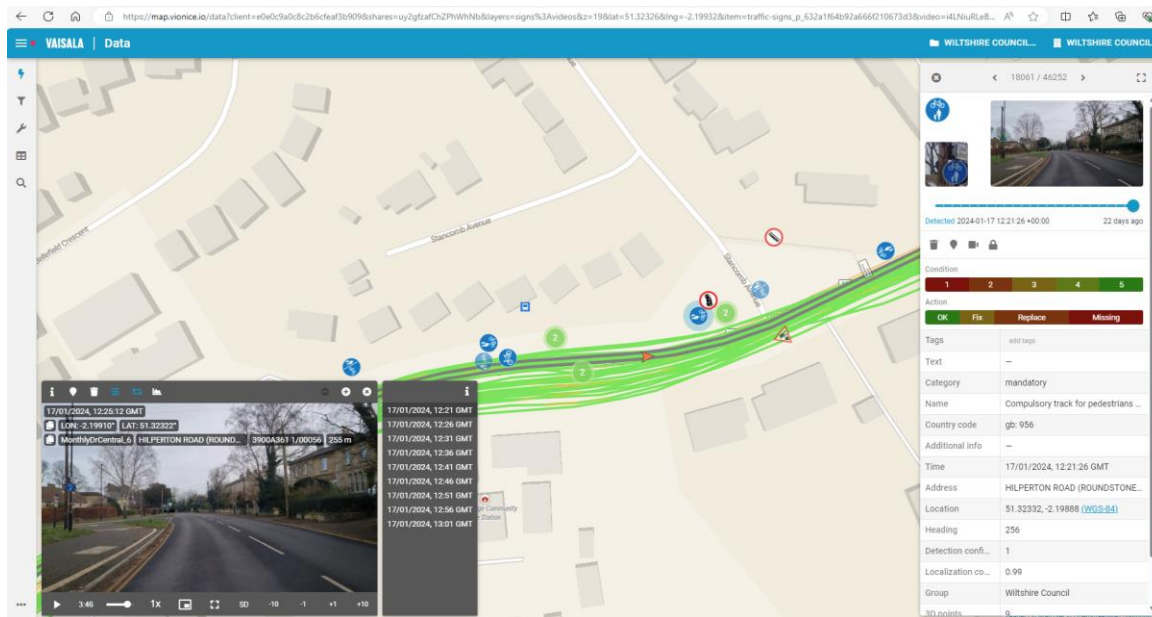
## 26. Innovation and Future Developments

The Highways Service continues to develop its Highways Infrastructure Asset Management System (HIAMS). The software came into operation in April 2018, and is currently used to inspect street works, manage highway works orders & budgets, programme/record pothole repairs in the field and analyse condition survey datasets to produce prioritised sites for resurfacing.

### Vaisala Road AI

Wiltshire Council is utilising Vaisala's Road AI technology on highway safety inspections. The technology uses smart phones in Council inspection vehicles to collect video data which is then analysed by Vaisala's Road AI technology to provide detailed outputs on road condition. It can accurately map and maintain a comprehensive road signs and lines asset register, informing Council staff if anything in the asset register is no longer there, such as a road sign that has been knocked over since the previous inspection.

All data collected including videos can be viewed and scrutinised by engineers on Vaisala's web platform.

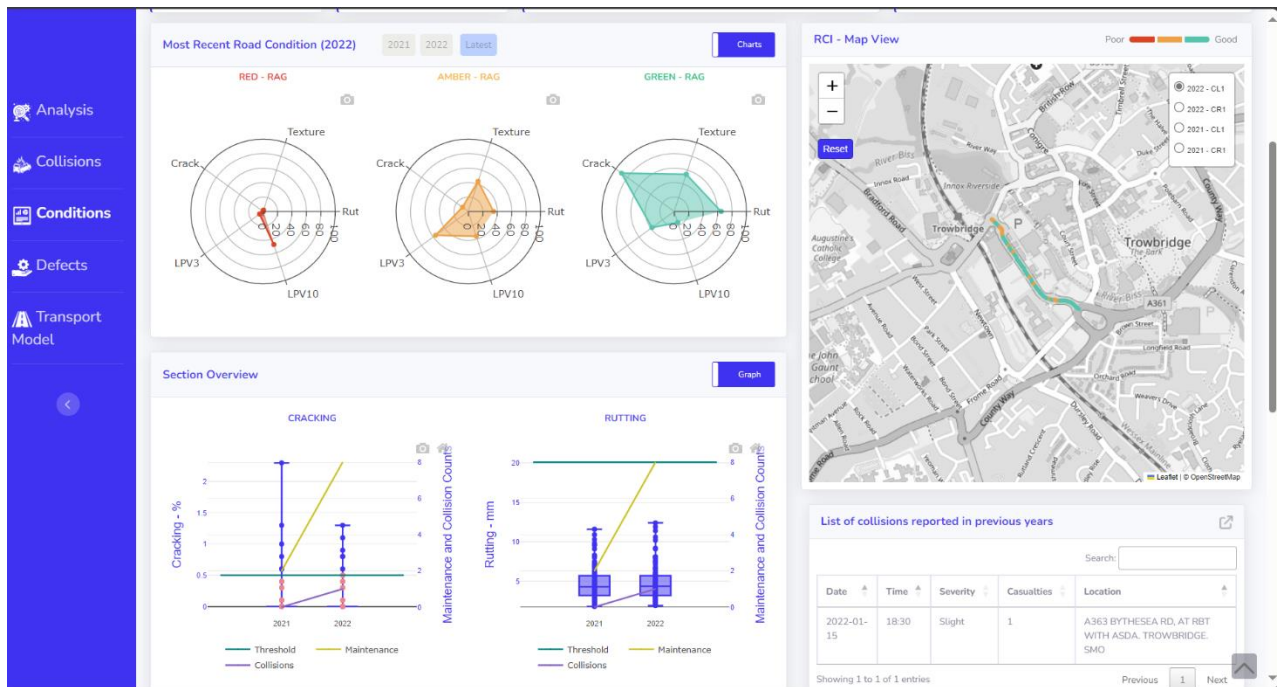


### Insights Engine

Wiltshire Council has been working collaboratively with AtkinsRealis to develop the Insights Engine – a map-based platform that combines multiple datasets such as machine condition data, pothole and defect data, road collision data and traffic model data enabling Highway Engineers to understand what is happening on the network and how the roads are performing.

A second phase of development is taking place this year to develop a road deterioration model that uses historical condition data to help predict future rates of deterioration across

the road network. This will provide Highway Engineers with the tools to understand when the most appropriate time is to intervene with treatments to prolong the life of the asset. Engineers will also be able to run multiyear budget scenarios to understand the impact of various spending levels on the present and future condition of Wiltshire’s roads.



## Innovation Examples

The highways contracts and Collaboration Forum allow for the Contractors to propose the use of innovative materials and ways of working. The use of which can result in a more robust longer lasting product, quicker site operations with less disruption to the public, or the use of more environmentally friendly products.

### Examples of innovations undertaken through the highways contracts.

#### Kiely Bros Ltd – Surface Dressing and Micro Asphalt Contract

##### KielyLock

This is a Road Surface Treatment used in conjunction with the traditional Surface Dressing process. The primary function of the treatment is to “Lock” the chipping into the road surface, which stops the ingress of water, and resultant damage to the treated road surface. The visual appearance of a KielyLocked site is akin to that of a “BlackTop” site, which is more aesthetically pleasing than normal surface dressing. The application of KielyLock is swift, minimising road closure durations and Road Markings can be applied 1 hour after completion of the KielyLock process.

KielyLock – has currently mainly been used on urban areas but we are considering its use it on some rural areas too in the new financial year.

#### Tarmac Ltd – Machine Surfacing Contract

##### ULTILAYER SAMI (Stress Absorbing Membrane Interlayer)

This is a fine graded asphalt containing a high proportion of premium Polymer Modified Binder (PMB). It is typically laid 25mm thick and is designed to offer exceptional flexibility. When tested by University of Nottingham’s Nottingham Transport Engineering Centre (NTEC) as part of a wider investigation into SAMI performance,

Utilayer SAMI – has been used in Westbury. Its shorter curing period allowed the road to be reopened and trafficked quicker than a traditional Geogrid membrane which would have required a 24 hour curing period.

ULTILAYER SAMI was shown to have fatigue resistance properties over 200 times better than conventional asphalt.

**Ultipave R**

Ultipave R uses recycled tyres

A trial using Ultipave R is being considered once a suitable site has been determined.

**Upton Specialist Tree Services Ltd – Arborist Contract**

**Magni 6.30 Telehandler**

The Magni 6.30 Rotary Telehandler with Westtech CS750 Smart Saw Head has increased productivity and reduced cost per tree.

**Westtech CS750 smart saw head**

The Magni has increased productivity by 540% as well as reduced the cost be per tree by over 70%.



**Timberwolf TW280HB Hybrid Chipper**

The Timberwolf TW280HB Hybrid, has improved productivity. Hybrid Wood Chipper, has reduced fuel costs as well as lowered emissions without compromising on performance.



**Excavators Road Brushes & Land Racks**

Both the Road Brushes and Land Racks have increased efficiency on site and reduced time in the final stages of the project and manual labour when the site is being clear up.



**25m MWEP**

The additional height this MWEP provides allows mobile access to a wider range of areas and it can access areas with restricted space and has improved the safety of working at height.



**Reflow Software System**

The Reflow software system has increased productivity and reduced traveling time back to the office to update works packages allowing more time on site to survey trees and support operatives.



**Broughan 23ton 40m3 Hi capacity woodchip trailer**

This has add a 50% capacity when transporting wood chips and so provides additional efficiencies in fuel and travel time.



**Tree spade**

Often communities will plant trees to commemorate a special occasion and will be reluctant to see them felled if they are in the way of proposed development so the tree spade provides the ability to move small trees rather than fell them which is a massive plus for the community.



### 2.7t Excavator with Rotating Grab

Easily transported from site to site on a trailer towed by a 3.5t vehicle this machine provides the ability to mechanise a small-scale project efficiently and also react to call outs quickly.



## 27. Network Management Permit Scheme

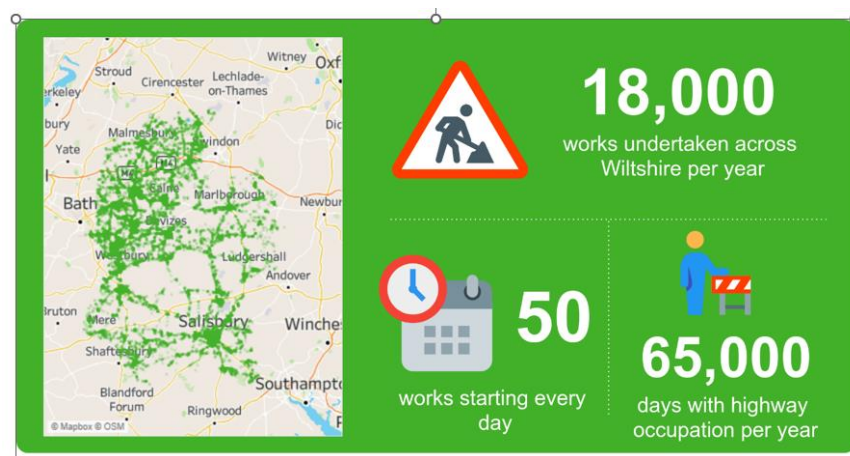
Wiltshire Council became a Permit Authority on 1st June 2020 following formal guidance from the Department for Transport (DfT).

The DfT require all Permitting Authorities to produce an annual report for the first three years of the scheme, covering the overall performance to ensure that Permit Schemes are meeting the initial objectives. The annual report aims to understand the volume and type of permits being submitted for works on the highway network and the performance and standard of both Works Promoters and our own Permitting Team in analysing and challenging the permit application submissions to effectively manage our Network Management Duty in order to minimize the disruption on the highway network.

The detailed Year 3 evaluation report demonstrates that the introduction of this scheme continues to provide a better understanding and visibility of the works that are taking place on the network and that the ability to analyse, challenge and apply conditions to permit applications continues to benefit all road users in Wiltshire. The summary of the Year 3 report evidences that the Scheme continues to be operated efficiently, with many processes and controls resulting in quantifiable changes to the planning and delivery of work on our highway network.

The full report can be found on our website [Road works permit scheme - Wiltshire Council](#)

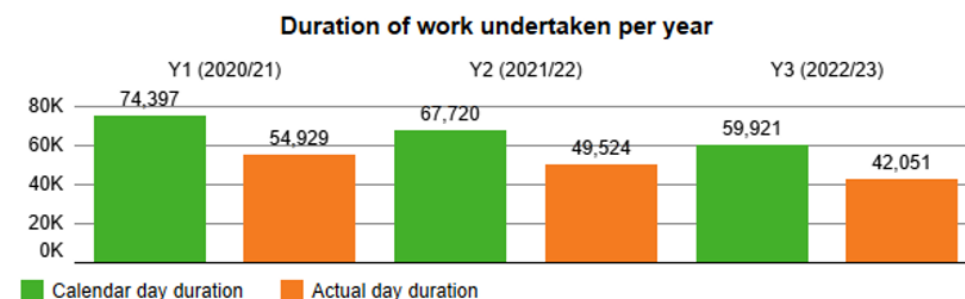
### Key findings in Year 3



24,382 applications assessed resulting in 18,000 works undertaken.  
65,000 days of highway occupation  
50 works starting every day.

Effective management of the permit assessment process has shown to be having a positive impact on the duration of the works year on year. (see chart below)

The chart below shows total duration per year, delineated by whole calendar days and actual duration.



Since the introduction of Street Manager in July 2020 (the government platform for all permit activities), Work promoters have been able to provide an activity type on their permit, identifying the type of work being undertaken, e.g. utility repair and maintenance works or disconnection or alteration of supply. This has provided more in-depth analysis of the works being undertaken.

The tables below show the proportion of works undertaken in both planned and emergency work categories in year 3, delineated by sector and activity type. The colour gradient (white to green) depicts the value (lower to higher) by sector.

#### Activity type per sector for planned work

Activity Type	Electricity	Gas	Highway	Other	Telecoms	Water	Total
Core Sampling			3.2%		0.0%	0.0%	1.0%
Disconnection or alteration of supply		0.1%	0.0%			0.1%	0.0%
Diversions works			0.0%		0.0%		0.0%
Highway improvement works			8.9%				2.7%
Highway repair and maintenance			86.3%	2.7%	0.0%	0.0%	26.6%
New service connection	2.2%	0.4%	0.1%	0.8%	1.0%	0.9%	0.7%
Permanent reinstatement	5.9%	7.8%	0.1%	1.7%	4.9%	5.0%	3.5%
Remedial works	3.6%	20.9%	0.6%	5.3%	14.0%	3.3%	6.6%
Section 50					0.0%		0.0%
Statutory Infrastructure Works			0.1%		0.1%	0.0%	0.0%
Utility asset works	1.7%	0.1%	0.1%	50.6%	20.3%	2.5%	8.3%
Utility repair and maintenance	86.7%	70.6%	0.1%	3.5%	59.7%	88.0%	49.6%
Works for Rail Purposes				35.3%	0.0%	0.0%	0.7%
Works for road purposes			0.7%				0.2%

### Activity type per sector for Immediate (emergency) work

Activity Type	Electricity	Gas	Highway	Other	Telecoms	Water	Total
Disconnection or alteration of supply		0.1%				0.0%	0.0%
Highway improvement works			2.1%				0.1%
Highway repair and maintenance			95.7%	10.7%	2.0%	0.0%	5.7%
New service connection						0.0%	0.0%
Permanent reinstatement					0.2%	0.0%	0.0%
Remedial works	0.3%	0.9%	0.3%		1.7%	0.1%	0.5%
Utility asset works				3.6%	10.2%	0.3%	2.2%
Utility repair and maintenance	99.7%	99.0%	0.3%		85.9%	99.4%	91.1%
Works for Rail Purposes				85.7%	0.1%		0.2%
Works for road purposes			1.6%				0.1%

#### Network Coordination and traffic management approvals.

Last year the team have worked collaboratively with internal promoters in coming up with innovative temporary traffic management solutions. An example of this was working with the Major Projects Team on the Salisbury Gateway Scheme in Fisherton Street, Salisbury, where a one way gyratory system has been used instead of what could have been very disruptive traffic lights with all the associated stationary traffic waiting at the red signals. The team are always pleased to be engaged early to explore innovative traffic management solutions and discuss alternative construction techniques to minimise disruption on the network. The expertise of the team was also used in helping resolve (with partners) parking problems in Salisbury that were causing significant reputational damage due to impactful major works in the Central car park.

Schemes such as the highly disruptive Wessex Water works in Staverton and Network Rail's bridge replacement scheme in Bradford-on-Avon were actively managed by holding regular update meetings with the promoters of these scheme to ensure they were on schedule with the program of works that had been agreed. If they were off schedule, ways of gaining back time were discussed and the team ensured the proper consultation/updates to the general public were undertaken.

#### Inspections of Utility works

Our six Street Works Technicians as part of their duties undertake a number of different types of inspections of street works on all works promoters. These inspections are whilst the works are in progress, following works completion and of non-compliant works. In 2023 they completed approximately 5700 inspections; this is lower than last year and is a result of the recent changes in Regulations. These changes reduce the number of inspections on utilities that perform well and increases inspection rates on those that have poor performance. Our inspection regime is known as being robust and with this approach we drive improvements in compliance and performance.

### Network Management Team – other works

Officers in the team deal with multiple other areas of work that help to ensure our network management duties are met.

### Events

The team get involved in many events that are held both on and off the highway and play a key role in ensuring that the traffic management deployed by the event organisers is as efficient as possible.

### Blanket Temporary Traffic Regulation Orders

The team have been instrumental in designing and introducing a Blanket Temporary Traffic Regulation Orders process. The blanket order process is still in its experimental stage and have continued to be used to great effect in delivering weather dependant operations such as surface dressing. Blanket TTRO orders can cover multiple road closures in various locations over long periods of time and offer the additional benefit of greater flexibility in delivering works programmes, with a significant reduction in the need for individual TTRO's. Last year this resulted in 18 blanket orders being processed, saving approximately 168 individual TTRO's.

The team have also been working closely with Wessex Water to use the blanket order process for one of their major mains replacement schemes in Devizes. Phase 1 of the scheme started during the Autumn 2023, and Phase 2 is to commence in the Spring 2024. The blanket order has accommodated the flow of the work by giving Wessex Water the necessary flexibility that standard TTRO's would not be able to provide and has minimised the administrative workload for the team. The blanket order process has been successful for this scheme, and both Wiltshire Council and Wessex Water have benefitted from it.

### Co-ordination of works for development control.

2023 proved to be another challenging year dealing with developers and their contractors. Our Development Works Coordinator in collaboration with our Development Control team delivered many S278 works on the highway network. Last year 45 sites on the highway network needed coordinating in some way to ensure they were delivering what they should and in a reasonable time frame to minimise disruption to the travelling public.

A large amount of work has been going on in and around Chippenham. The redevelopment of J17 of the M4 is now complete with new signal-controlled junctions to accommodate the new industrial park. Southpoint Industrial Park now has a new roundabout on the A350 to allow access to their site and has included certain dualling works ready for MJ Church to continue this dualled section in Summer this year. Patterdown Road is now closed to allow Redcliffe Homes, Wain Homes and Crest Nicholson to construct their S278 obligations. Hard work and planning was required to have these S278's align and have the road closed to reduce the inconvenience to the public and to ensure this road is open again for when the dualling works enter its more disruptive phases of construction.

### National and Regional contributions to industry work.

Two members of the Network Management Team have been fortunate enough to have been asked by JAG (the Highway Street works representative group) to sit on the DfT Working groups for the rewrite of some of the major Statutory Codes that govern the way Highway authorities and Utilities work together. The Code of practice for co-ordination of street and



road works, and the Code of practice for inspections both took several years of work and they have now been formally issued by the DfT. The team are continuing to contribute to the rewrite of the statutory Code of Practice that governs Safety at Street works which is due to go out to consultation at the end of 2024..The working groups are small, only 4-5 representatives each from Highways and Utilities so it has been a fantastic opportunity for Wiltshire to have been able to represent regional and national highway authorities interests and help shape the future of regulations covering Street Works.

**Project lead on application to the DfT for the powers to enforce moving traffic offences.**

The Network Management Team acted as project lead on the application to the DfT for the powers under Section 6 of the Traffic Management Act to enforce moving traffic offences, such as yellow box junctions, banned turns, environmental weight limits and no entry restrictions, via the use of ANPR cameras. Part of the statutory process involved a full public consultation exercise.

The survey was launched with a press release, social media campaign on Facebook and Twitter (X), and publication in the Members' newsletter, the Town and Parish newsletter and the Residents' newsletter, which is sent to approximately 27,000 Wiltshire residents. The news was featured on BBC Wiltshire, and in the Wiltshire Times, BBC News, Swindon Advertiser, Salisbury Journal and other local media.

The six week consultation generated a lot of interest and resulted in over 4000 comments being received which required a significant amount of time of detailed analysis. Following the approval of the Cabinet report the formal application for the powers was submitted to the DfT ahead of the deadline and we are now awaiting a decision which is due early Spring 2024.

Should the application be successful, the sites proposed for camera enforcement are:-

**Site 1 - Market Street / Castle Street, Trowbridge - No left turn except buses, taxis and cyclists**



**Site 2 - Town Bridge, Bradford on Avon - 18t weight limit**



**Site 3 - Roundstone Street, Trowbridge - Prohibition of vehicles except buses, taxis and cycles**



**Site 4 - Market Street, Bradford on Avon - Yellow Box marking**

