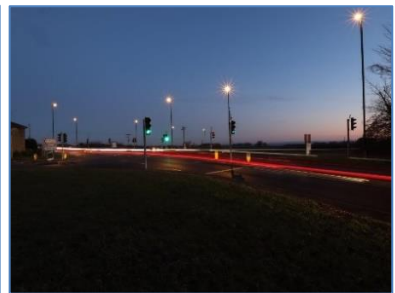


Wiltshire Highways Contracts

ANNUAL REVIEW OF SERVICE 2022





Introduction

Wiltshire Council manages over 3000 miles of road and about 1,000 bridges and structures. 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 Atkins, Ringway Infrastructure Services and other specialist contractors to help deliver the highway service. This review covers the period January 2022 to December 2022. It has been prepared as a joint report between the Council and the main service suppliers.

The Council continues to be in Band 3 (the highest level) in the assessment process for the Department of Transport's Incentive Funding. This reflects the good asset management processes adopted by the highway service.

Ringway Infrastructure Services – Highways Term Maintenance Contract



Ringway, working closely with associated Eurovia companies, manage and maintain the largest portfolio of highway maintenance contracts in the UK, covering more than 50,000km of strategic and local highway network. Ringway are part of Eurovia UK, and the wider group relationship underpins their declared self-delivery focus bringing access to the very best national and international expertise.

As a leading service provider to local authorities, Ringway undertakes the management, maintenance and improvement of the built environment across a national portfolio of term contracts; these include local authorities, Private Finance Initiatives and National Highways strategic roads.

Ringway delivers a range of services for Wiltshire Council from planned and reactive highways maintenance, through to winter precautionary salting, emergency response, gully cleansing, street lighting installation and maintenance, and traffic management and safety schemes.

Ringway have continued to deliver an excellent quality service over the past final year of the contract. A successful delivery of both the Heritage and general LED projects, along with the early completion of the Winsley footway/carriageway upgrade has underpinned a number of major projects completed over and above the general routine and cyclical maintenance which has kept Wiltshire's roads running freely over the past 12 months. Their final public realm job in Trowbridge centre as part of the Future High Street Fund is due to complete just prior to their contract exit. This has been supplemented by an active effort on the Corporate Social Responsibility and carbon reduction fronts with a number of trials of electrical equipment including an electric 360 degree machine as part of the equipment used on the Building Heroes initiative working to get forces leavers into the Highways Construction

industry. A successful Environment day saw the showcasing of many new environmentally friendly technologies including welfare units, vehicles, plant and materials.



Environment day 2022



CSR Building Heroes training ex army to be construction engineers



CSR Christmas collections Julias House

The current contract started in April 2016, with an initial duration of five years. Following assessment through the Key Performance Indicators included within the contract, the duration has been extended to March 2023, the maximum possible under the contract terms

Atkins – Highways Consultancy Contract



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

SNC Lavalin's Atkins business design and supervise 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.

Staff from Atkins 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. Atkins also supported the Wiltshire Sports and Social Gala, as well as running a Military Insights Day from our office in Bristol.

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

The Kiely Bros contract undertakes the surface dressing and micro asphalt works. This involves the overlaying of roads with a thin layer of surfacing to provide essential skid resistance and increase the life of the road. Performance under this contract has been good and a large number of sites completed to program. 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 installation of new traffic signals. The current signal asset comprises of 136 pedestrian crossings and

80 signal controlled junctions. Performance of this contract did raise some concerns in terms of response times to reported breakdowns in the middle of the year but this has been addressed and performance is now satisfactory. This contract started in July 2019 and is for 5 years with the option to extend by 2 years.

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.

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.

Institution of Civil Engineers (ICE) Training Scheme

Because of the shortage of skilled engineers and the difficulty of recruitment, the Council has established its own training scheme with the Institution of Civil Engineers (ICE). The major highway projects team is managing the ICE training scheme that supports the apprenticeship scheme.

There are ten apprentices in the highways team who are completing their civil and environmental engineering degree apprenticeship with University of the West of England (UWE) and the ICE. Three of the apprentices are in the final stages of completion, which means they will soon be fully qualified engineers and incorporated with the ICE.



As part of their training a number of site visits have been arranged for their development, including to the Lyneham Banks ground investigation works and the construction work at Salisbury River Park.

External impacts

2022 has seen the Highways Team continue to deliver services to the residents of Wiltshire. Ways of working have continued to be developed following the Covid pandemic with staff predominantly adopting a hybrid working pattern combining home and office based working with face to face and virtual meetings. Operationally some activities, such as safety inspections, that have traditionally been done by 2 person teams have continued as single

person operation. Atkins similarly have adopted hybrid working arrangements combined with face to face and virtual meetings. Ringway have been able to work normally with the majority of office based staff having returned the main depot at Bowerhill. Site based operations have continued as normal but with some changes to accommodate Covid safe ways of working.

The other main contractors, Tarmac, Kiely, Uptons, Telent together with other supporting contractors have been able to continue with their site based activities but again have continued to adapt their working methods to ensure they are covid safe.

Material supply and availability has improved compared to 2021. However rising inflation has had a significant impact on national construction cost indices to which the various contracts are linked. This has resulted in increases of between 4.21% and 16.75% occurring. With the Highways budget in effect being fixed the result has been less work being undertaken. In the longer term this is likely to have an impact on the condition of the network creating a larger backlog of road repairs and higher levels of public dissatisfaction. This has been mitigated to some extent by the choice of treatments included in the works programmes with more emphasis on thin surfacing as opposed to full surfacing and reconstruction activities.

New Highways Term contract

During 2022 a procurement exercise was undertaken for the next term maintenance contract. This is to take over from the current Ringway contract which as set out above expires at the end of March 2023. The award of the new contract was made to Milestone Infrastructure Ltd in November and Council officers are working alongside Milestone during the contract mobilisation period to ensure a smooth transition before the contract goes live in April 2023.

During this same period Ringway will commence demobilisation activities and have committed to work alongside the Council and Milestone to achieve a managed close down of their contract.

Staffing Resource issues

Throughout 2022 staff resource, recruitment and retention has been of growing 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 above, 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 2023 to try and help address the issues.

Local Highway and Footway Improvement Groups (LHFIGs)

The LHFIGs were introduced in April to take over from the long running and successful Community Area Transport Groups (CATGs). The intention was to build upon the success of the CATGs to further allow local decision making on local issues to be extending to cover a wider remit. This was in response to a review undertaken by the Environmental Select

Committee who recommended that with additional funding and resource that the CATGs would be able to deliver an even better service.

The introduction of the LHFIGs was accompanied by revised Terms of Reference, a doubling of the delegated budget, and an agreement to provide additional staff resource to support the groups. The wider remit of the LHFIGs has led to an increase in the number of requests being made, with in excess of 380 requests being dealt with during the year. Unfortunately, recruitment of additional staff, as set out above, has not been possible as yet and this has led to some delays in delivering all the requested schemes and concerns being raised by the Groups. Those staff supporting the LHFIGs are aware of this and continue to work hard to support the Groups.

Highway Major Maintenance

Wiltshire Council maintains over 3,000 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.



Technical data is used to identify sites potentially in need of treatment.

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 2022, 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 2022 to improve the condition of the county's roads. Over 112 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 2022 Km	17km	70km	27km	6km	120km

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 programme of planned maintenance has seen an improvement in the condition of the county's roads in the past decade, but there is still a backlog and continued investment is required.



Before



After

As well as resurfacing main roads, the programme of surfacing work in 2022 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.

Carriageway Repairs

It is important that serious defects are treated promptly to keep the roads safe. Ringway 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 11,361 potholes in 2022, and resurfacing 106km of roads, the Council also carried out 10,860 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

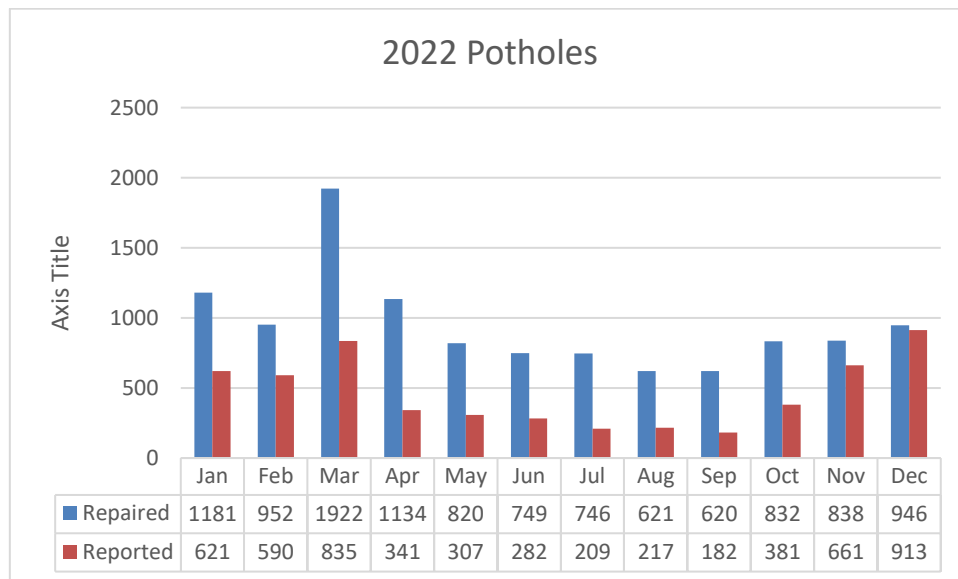
After

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

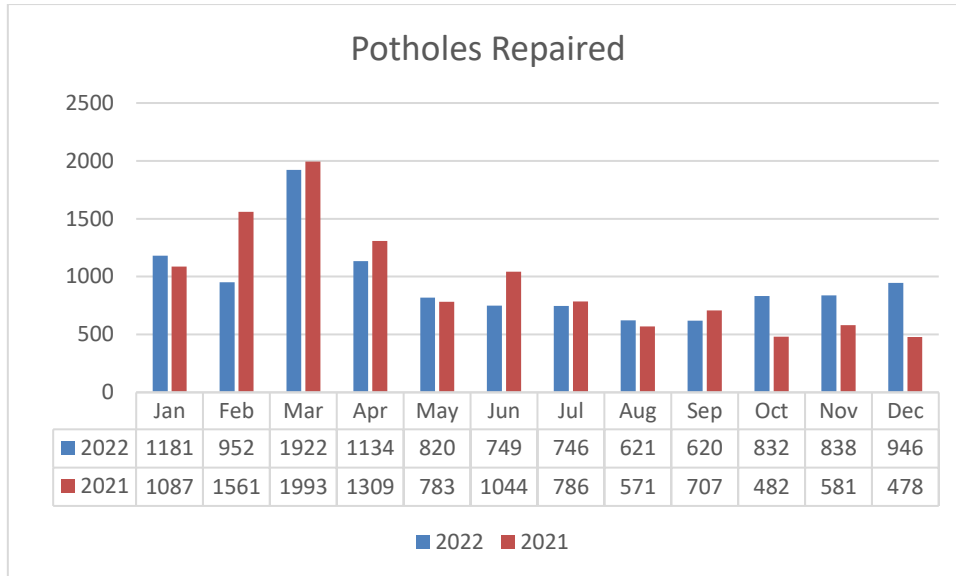
It should be noted that the best approach is to prevent serious deterioration of the roads by the timely resurfacing of those roads in poor condition. Unfortunately, it is not possible to resurface every road immediately, and work has to be prioritised, with arrangements made to deal with defects as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

Road Repairs and Potholes

The number of pothole reports from the public were higher at the beginning of 2022 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 decreased slightly in 2022 compared to 2021. 11,361 potholes were repaired in 2022 compared with 11,382 in 2021.



Footway Repairs

A programme of footway repairs has been carried out in 2022. Overall 6.2km of footway works have been completed



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.



The programme of verge repairs is addressing damage to road edges on rural roads.

Repairs were undertaken to address the worst damage to the edges of roads in rural areas. In 2022 32 locations were subject to repair with the verges being strengthened, and the road returned to its previous width.

This programme will continue in future years.

Bridges and Structures

Wiltshire Council maintains about 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 2022 475 bridges were inspected, predominantly in the north 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 Council's bridge stock is currently rated as 'good'.

Ringway provide three full time bridge construction/maintenance gangs to carry out works from minor maintenance up to full bridge reconstruction. Additional resources and sub-contractors are on occasions called upon to cater for extra large schemes or more specialist schemes.



A programme of bridge strengthening and renewal was undertaken by the Council's contractors

In 2022 Wiltshire Council in partnership with Atkins and Ringway have undertaken reconstruction or strengthening works at a number of locations, including Saxon Street, Chippenham, Uffcott, Broad Hinton, Hollow Lane, Wilton and the reconstruction of retaining walls at Limpley Stoke and Malmsbury. In addition, routine maintenance works such as repointing masonry, timber parapet repairs, vegetation clearance etc were undertaken on bridges throughout the county.



*Collingbourne Kingston,
routine maintenance &
parapet replacement*

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.



*Innovative use of pontoon
working to minimise
environmental impact on
bridge works*

Traffic Engineering

2022 saw the delivery of a number of traffic engineering and safety schemes. The Council's Traffic Engineering team have worked with Atkins and Ringway to plan and deliver a range of projects to 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 Traffic Signal Maintenance Fund, DfT Active Travel Fund, Developer contributions, and the Capital allocation to enhance Road Markings 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



Schemes to improve Cycling and Walking included the provision of cycle infrastructure in Hilperton Road, Trowbridge providing dedicated cycle facilities and two new Toucan Crossing facilities. A formal opening took place with students from a local primary school and the Councils Cabinet member for Highways, Street Scene and Waste. Improvement also took place in Easton Lane Chippenham, with the conversion to a traffic free route. A shared use path was delivered between Bradford on Avon and the village of Winsley, and substantial improvements between Hilperton and Melksham successfully implemented through upgrades to existing byway and improvements to crossing facilities on the A350 and Semington Road.

Substantive safety and asset improvement scheme to upgrade the existing traffic signals on the A350 at Upton Scudamore and A365 Box Fiveways junctions were also completed. The works included the replacement of all signal equipment, new street lighting and full carriageway resurfacing together with new road markings and road studs. The works were carried out with minimal disruption to motorists using well-planned temporary traffic management measures. The works were carried out by a variety of the Councils contractors working collaboratively to deliver the scheme.



In addition, refurbishments of pedestrians crossings on the A366 Wingfield Road, Trowbridge, B3108 Winsley Road, Bradford on Avon, Vicarage Street, Warminster and Exeter Street, Salisbury were also completed. These included the removal of Pelican Crossings and replacement with Puffin Crossings. Work was also completed to refurbish the existing Zebra Crossing on Bulford Road, Durrington.

The Council was also successful in being awarded £0.5m from the Department for Transport as part of its Traffic Signal Maintenance Fund. This was utilised to upgrade 5 installations on the A3102 at Royal Wootton Bassett. Three Crossings in the High Street were changed from Pelican's to Puffin's, one Pelican upgraded to Toucan, and the refurbishment of one existing

Toucan crossing. Work to resurface the carriageway has also been co-ordinated with these upgrades in early 2023 alongside major work being completed by the gas network provider.



LHFIGs & Substantive LHFIGs

2022/23 saw the change from Community Area Transport Groups (CATGs) to Local Highway Footway Improvement Groups (LHFIGs) and an increase in the annual budget allocation to each group. Whilst this has stretched the staffing resource in the team, in excess of 120 locally prioritised schemes have been delivered, including dropped kerbs in various villages across the county, along with various 20mph Speed Limits, Traffic Signing, Road Marking and Speed Indicator Devices infrastructure projects.



Alongside these projects, delivery of Substantive LHFIG / CATG has also taken place to provide new footways in Odstock and Brinkworth, with changes also taking place to provide improved pedestrian facilities in Station Road, Bradford on Avon. Design work has also taken place to deliver the approved schemes in Holt, Quidhampton and North Newnton, with these work programmed for 2023



Other funded schemes

Utilising funded secured via National Highways, improvements to provide better cycle accessibility were undertaken in Amesbury, consisting of a new shared use path and upgrading of a crossing to a Toucan Crossing. This is anticipated as the first phase of wider proposals to improve cycle infrastructure in the town and communities to the north.

Work has also commenced on the Trowbridge Future High Street Fund Highways element at the junction of 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. Work has commenced in 2022 with completion in early 2023, with work to deliver the remaining sites continuing throughout 2023 and 2024.



Road Markings

An additional £0.2m of funding from the Council was made available in 2022 in addition to normal funding to allow an extended programme of road markings to be undertaken. Priority was 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 laying of road markings is limited to the summer and early autumn due to the need for dry and clear road conditions. The programme has seen in excess of 234KM of road centre line replaced and was substantially completed by early November and included sections of the A350, A338, A429, A361 and A4 plus additional lengths on other A and B class routes.



Between April - September 2022, the Local highways team completed routine road marking refurbishments at over 500 sites across the network, with two gangs working full time, day, and night, in the county.

Trials of methyl methacrylate (MMA) cold lay road markings were undertaken at B4696 North End Crossroads. MMA markings are typically usually used in high traffic areas and high stress locations 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 2023/24, with a view to expanding its wider use in the future.





Drainage Improvements and Flood Alleviation

A programme of drainage investigations, repairs and flood alleviation schemes was undertaken in 2022. The work is co-ordinated through the three Operational Flood Working Groups that include the Environment Agency, Wessex Water, other organisations and stakeholders, including the town and parish councils.

A specialist Drainage Investigation and CCTV Survey team working for Ringway 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 and informs 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 Ringway and their sub-contractors.

An additional £0.5m of funding from the Council was made available in 2022 to allow a programme of improvements to take place at known flooding sites. This work has not progressed as well as hoped due to resource limitations, but this has now been addressed and the programme should catch up in 2023/24.

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

Drainage improvements were undertaken at 20 locations including Wingfield, Colerne, Donhead St Andrew and Tockenham Wick. There were investigations and CCTV drainage surveys undertaken at 76 sites with 140 tonnes of silt and debris being removed from drainage systems. These schemes and investigations helped to improve drainage systems, repair damaged pipes and help to reduce flood risks for communities. Activities also highlighted a number of damaged sections of pipes where costs were able to be claimed back from 3rd parties or utility companies.

Street Lighting

Wiltshire has over 53,000 street lights and illuminated signs which are managed by Atkins, with Ringway 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 by Ringway 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 the LED Street lighting project is now close to completion with the installation of the last of the heritage style units due in January 2023. Overall the project has run smoothly but there were some continuing delays in obtaining the LED lanterns and controls due to the worldwide microchip shortage.

Energy consumption has continued to reduce and consumption in 2022 was 5,460,941 KWh compared to 7,250,447 KWh in 2021. This continues to provide significant cost savings for the council as well as reduced maintenance costs as the LED units require replacement less often than the older units.

The Council has recently procured an upgraded street lighting asset management system known as Alloy, and this will be introduced in 2023. The system will provide a complete mobile working solution and allow for fault reporting and visibility of completion status in real time.

Traffic Signals

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

Telent respond to faults and damage following accidents and carry out pre-planned annual inspections and lamp changes. They also install new equipment, upgrade and refurbish existing signals sites as instructed and designed by Atkins. A total of 911 reactive maintenance tasks and 134 switch off tasks were issued for the contractor during the calendar year January 2022 to December 2022 and 91% of urgent faults and 93% of non-urgent faults were attended within the response times specified in the contract. 94% of urgent faults and 91% of non-urgent faults were repaired within the repair times specified in the contract

The traffic signals now have remote monitoring on 91% of the sites, and sites are having obsolete monitoring equipment replaced as funding permits.

The Council has now fully populated its new traffic signal asset management system (known as IMTRAC) and this can now be 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.

The new cloud-based UTC system, is operational and its reach expanding, with Bridge Centre and Ave La Fleche in Chippenham signals now connected. Sites in Royal Wootton Bassett and Salisbury are to be connected in the early months of 2023 and the old UTC system decommissioned. This technology enhances the network management capability of Wiltshire Council and improves accessibility for the system operators.



Upgrade and refurbishment of traffic signal equipment was carried out at a number of key sites in Wiltshire including A365 Box Fiveways, A350 Upton Scudamore and A4 Avenue La Fleche, Chippenham, in addition to four signalled crossings. Upgrades to the control technology and changes to the timings at the signals at Bridge Centre, Chippenham were also undertaken. Two new signalled crossings were installed as part of the Active travel schemes and four as part of developer funded S278 works.



In April 2021 the Department for Transport announced that £15m of additional funding was to be made available nationally for traffic signal maintenance works and that the Council was invited to bid for an allocation of this funding. In September 2021 the Council was awarded £0.5m from the fund, this being the maximum available to individual authorities. This funding has been used in 2022 to replace and upgrade five pedestrian crossings in Royal Wootton Bassett.

Technology improvements providing innovation, efficiency and collaboration have been progressed including:



SmartCross - At the upgraded pedestrian crossing facilities in Royal Wootton Bassett, a SmartCross touchfree innovation, has been installed at each refurbished crossing location. It has an in-built sensor that allows a user to merely hold their hand under the crossing push button unit without touching it to initiate a demand at the crossing.

Traffic CCTV – Fixed, low-resolution equipment is now being installed at traffic signals sites to improve network management capability, and to allow engineers to monitor operation and investigate problems at sites, without the need for travel.

Traffic Counts - The traffic count capability at traffic signal continues to improve, with new software within the traffic controllers allowing easy access to historic count data from the detection equipment at sites. There have also been two trial RTEM sites installed with incorporated traffic counter equipment, reducing the need for isolated traffic counter sites and associated additional street furniture.

Trees and Landscaping

The maintenance of trees and shrubs growing in the highway is managed by Atkins 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. There has also been an extensive pollarding programme undertaken.



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

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 2022 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 34,000 ash trees being present alongside the highway with a further 12,000 being within woodland fringes with potential to fall on the highway if failure occurred. The survey used a risk based approach to identifying those trees that are recommended for immediate removal, and removal within 6 months, 12 months and 24 months.

Overall numbers recommended for removal on the Group 1 roads within the next 6 months stands at a little over 8000 trees.

During 2022 approximately 2750 ash trees were removed with works taking place at over 100 locations across the County. with major works under full road closures having taken place on the A420 and night closures on the A350 which was a complicated scheme to undertake.

Over 5000 trees are being replanted to replenish the tree stock that has been removed.

The Council has engaged 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.





Local Highways

The Local Highways Service is responsible for the routine and reactive maintenance functions which include pothole filling, gully cleaning and rural verge mowing. In addition to this, a number of duties that fall into this service around the council's function as the highway authority are undertaken.

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

With regard to inspections, Local highways have been trialling the use of innovative road asset technology using artificial intelligence to capture and record highway data. Artificial Intelligence helps support maintenance and management decisions on our road network by automatically identifying and assessing assets such as pavement defects, signs, and lane markings condition. The technology also provides the benefit of improving the authority's ability to defend claims for third party damage, whilst better utilising staff time.

Where Skips or scaffolds are placed within the highway, checks are required to confirm that they are positioned in a way that does not create a safety hazard for road users. Each site is licenced for which a charge is payable to the council to cover costs. Across the network, in excess of 1000 skip / scaffold licenses are granted within a 12-month period.

Development of both commercial and housing sites continued to be vibrant in 2022. Where developers are seeking the Council to adopt roads within these sites, it is done under a Section 38 agreement. The supervision of construction work is undertaken by the Local Highways Service, to ensure the works are undertaken to the required specification and quality prior to adoption.

Drainage cleansing is undertaken on a scheduled basis. There are approximately 84000 gullies on the highway network, with gullies on A and B roads checked annually. C and unclassified roads are checked on a three yearly cycle. This equates to circa 42000 gullies being attended in a 12month period. In addition to these drainage features there are many drainage channels (grips) cut into highway verges, these are recut annually.



The provision of an additional Vector/Jetting vehicle has increased the capacity of the service to deal with blocked drainage systems.

The Parish Steward Scheme has continued to be a well valued service that is utilised by many Parishes. 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 set 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.

Local Highways is responsible for the routine maintenance of traffic signs across the network. This includes life expired and damaged signs and varies from a single warning

triangle to larger advanced direction signs (ADS) In 2022/23 sign replacements were undertaken at over 160 sites across the county.

Countryside Access

The Countryside Access Team are responsible for the maintenance and management of the County's public rights of way network, which consists of some 6000km of byways, bridleways and footpaths.

The day-to-day issues of maintenance and management is dealt with by a team of six Countryside Access Officers. Who undertake maintenance works engage with landowners and work with voluntary groups to improve the network. An example below is a ford that had become damaged due to its use by four-wheel drive vehicles, the bed of the ford was reinforced with rock and then boulders introduced to marshal vehicles into using this reinforced section.



Before works



After works

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.

The determination of definitive map modification orders provides another significant element of this team's workload. These orders relate to situations where individuals or organisations can apply for a right of way that is believed to exist but is not recorded on the Definitive Map to be added. The process is detailed and time consuming, involving a great deal of research of historical sources. In common with many other similar local authorities, we have a significant number of these to be determined, currently 371.

The team also maintains the registers of commons and town and village greens and determines applications to record town and village greens and to correct the commons register. These matters are generally highly contentious locally as in addition to recording public rights they can have the effect of halting development or new use of the land.

Many of our rights of way take the form tow paths for the canal network in Wiltshire and the team have continued to work in partnership with the various organisations that maintain and renovate this important asset.

Winter and Emergency Response

The precautionary salting of Wiltshire's roads during the winter is carried out by Ringway using Wiltshire Council's vehicles under the supervision of the Council's staff. Farmers and contractors across the County also assist with keeping the network open.

Over the 2022 winter period the Council treated the primary network 37 times and the secondary routes 17 times. The Council used 5,880 tonnes of salt in total last winter.



The winter was not as severe as last year, but 60 primary and 21 secondary precautionary treatments were still required.

The Council's staff monitored conditions on the ground during the season, and arranged for responses to incidents as they occurred.

The regular out of hours and emergency response worked well during the rest of the year, with the Council's four duty engineers receiving good support from other agencies, organisations, and various contractors during emergencies. The Council's Duty engineers dealt with 1,663 out of hours calls in 2022, of which 983 required action. The Ringway teams provided an on site response as required, and were able to increase resources when incidents had to be escalated.

The Council works closely with the Environment Agency and Dorset and Wiltshire Fire and Rescue to prepare for flooding events and ensure the timely placement of the flood defences. The Council's weather team liaises with local Flood Wardens and Parish Councils when warnings of potential flooding are issued by the Environment Agency.

The Council's teams also assisted with the usual summer and winter solstice operations.

Major Highway Improvement Schemes

The Council 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 Council's Major Highway Projects team works closely with other teams and is supported by Atkins, the council's term highways consultant, who provide specialist and design services.

A350 Chippenham Bypass (Phases 4 & 5)

It is proposed 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 on the west side of the A350 to accommodate an additional carriageway to increase capacity, and there is sufficient land available to improve Bumpers Farm Roundabout. When the bypass was originally built the structures were constructed so that they could easily accommodate the additional carriageway.



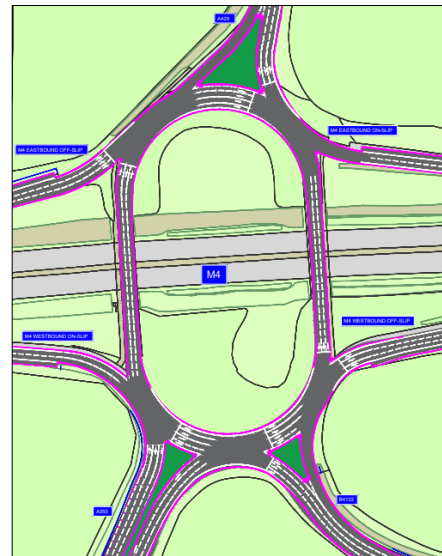
The improvements to the A350 at Chippenham include increasing capacity at the Bumpers Farm Roundabout

The DfT have awarded £26.625 million to enable construction of the scheme, and the detailed design is underway so that contractors can be invited to bid in spring 2023.

A350 M4 Junction 17

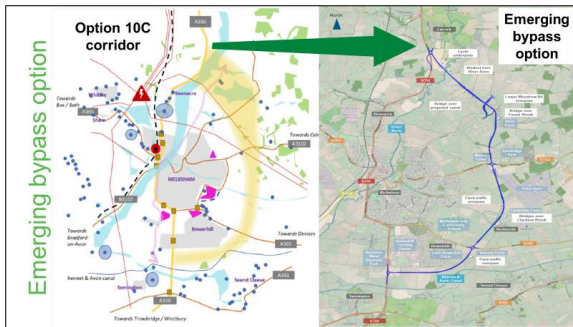
The £29 million scheme at M4 Junction 17 will widen the approaches to the roundabout junction and provide additional traffic signal control to increase capacity and improve safety. We are working closely with National Highways who are responsible for the motorway and the slip roads. The Outline Business Case has been submitted to DfT and funding approval is awaited so that the detailed design can be progressed.

The important A350 north-south route joins the M4 at Junction 17, where capacity improvements are required to accommodate future population and employment growth in the corridor.



A350 Melksham Bypass

Improving the A350 has been a longstanding priority for the council, and DfT funding was awarded to develop a scheme to address issues at Beanacre and Melksham. Initial investigation work considered both road and non-road options. Following the public consultation, a route to the east of the town was identified and this is being developed in more detail. It will be the subject of further consultations when the results of National Highways' current M4 to Dorset Coast connectivity study become available.

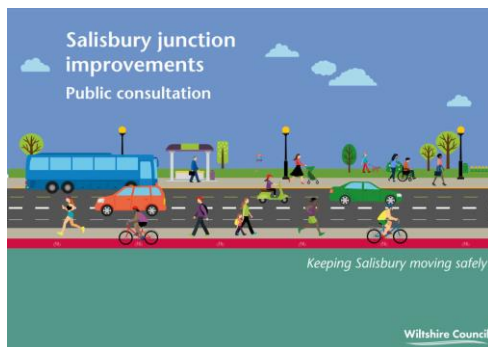


An eastern route corridor was developed for a Melksham Bypass. Further consultations on the route and variations of that route will be undertaken when the National Highways study on north-south routes in the area has progressed further.

The £236 million scheme is expected to comprise 9km of single carriageway, with provision for future dualling and four roundabout junctions. Subject to satisfactory progress through the statutory procedure construction could start in 2026 and be completed in 2028.

A338 Salisbury Junction Improvements

Improvements at junctions around Salisbury at Exeter Street Roundabout, Harnham Gyratory and Park Wall junction were examined, but following a public consultation and further investigations it was concluded that it would not be possible to put forward a viable business case under the DfT's Major Road Network programme based on current and projected traffic volumes. Instead, a scheme focused on the two most congested junctions - Exeter Street Roundabout and Harnham Gyratory – is being developed with alternative funding.



The consultation provided valuable feedback from residents and businesses in the south of the county, and in response the council is looking again at the traffic modelling and layouts for the junctions.

The reduced scheme is now in the detailed design stage. Further traffic surveys were carried out in May 2022 to capture traffic data post COVID-19. The surveys and design work are being coordinated with National Highways' study at Southampton Road and College Roundabout to ensure that the schemes are joined up.

Salisbury River Park

The Major Highway Projects team is supporting the Environment Agency with the Salisbury River Park Phase 1 project, which started on site in July of this year. This £27 million scheme is a partnership project between the Environment Agency and Wiltshire Council that is set to transform the city of Salisbury. Jointly funded by the Environment Agency, the Swindon and Wiltshire Local Enterprise Partnership, National Highways, the Department for Education and supported by Salisbury City Council, the scheme will reduce flood risk to over 350 properties in the city, improving the environment for wildlife and residents with tree planting and habitat creation as well as encouraging greener forms of transport like walking and cycling.

Phase 1 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 will be provided around the edge of Ashley Road Open Space and through Central Car Park to 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.



Construction is progressing well and is programmed to be completed by early 2024.

Salisbury Future High Streets Fund Schemes

Last year the council was awarded over £9 million to deliver transformational projects that would rejuvenate Salisbury City Centre. The Salisbury Future High Street Fund Schemes at Salisbury Station Forecourt and Fisherton Gateway will provide urban realm improvements to this key arrival point and route into the city.



The enhanced public realm and improved wayfinding will 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.



Extent of proposals for urban realm improvements to the forecourt of Salisbury Railway Station, South Western Road and Fisherton Street.

A 6-week public consultation was completed in March/April of this year, which informed the detailed design phase. Construction work is programmed to start in spring 2023 at Fisherton Gateway and in summer 2023 at Station Forecourt.

Royal Wootton Bassett to Swindon Cycleway

The Major Highway Projects team will also deliver the Royal Wootton Bassett to Swindon Cycleway for National Highways. The business case for the cycleway was updated this year and National Highways have recently agreed funding to enable the scheme to be designed and arrangements made for the necessary land. This £4.7 million project will provide an off-road route safe for cyclists between the towns, enabling them to avoid the busy Junction 16.

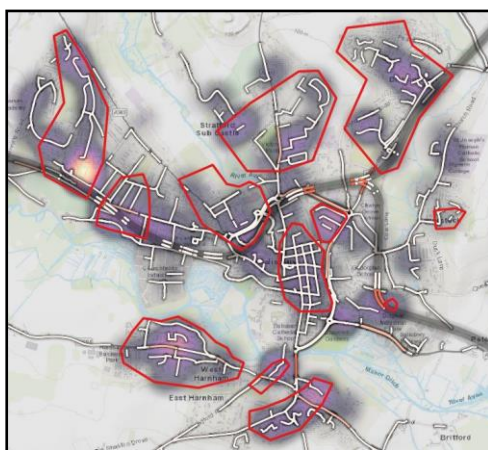


Royal Wootton Bassett to Swindon Cycleway

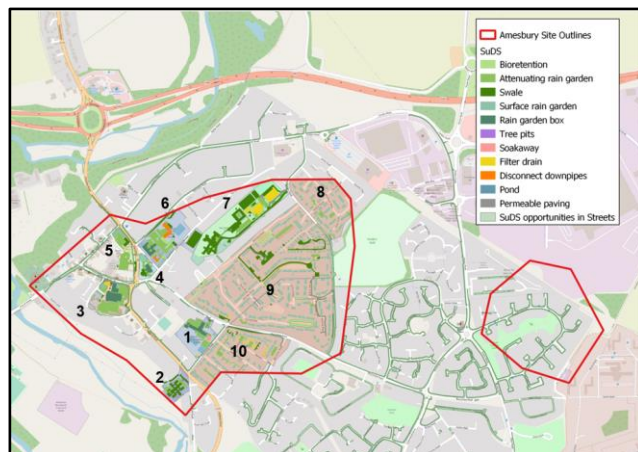
The detailed design of this project is expected to be completed during 2023. Construction will be dependent on land agreements and a planning permission. We continue to work closely with National Highways and other partners on funding opportunities to being this scheme forward.

Salisbury and Amesbury Surface Water Schemes

In 2021 the Council was successful in its bid for Flood Defence Grant-in-Aid (FDGiA) from Defra. Salisbury and Amesbury were awarded £291,200 and £120,640 respectively to investigate surface water flooding issues and develop schemes to resolve them.



The potential flooding hotspots being investigated in Salisbury.



Optioneering for Amesbury central hotspot with various storage options being considered.

During 2022 the Council has continued to evaluate the at-risk sites to determine whether there is a valid surface water flood risk. Work this year has seen a number of modelling exercises undertaken and the start of optioneering. If a successful business case can be made a further £3.5 million could be secured to protect properties.

B4069 Lyneham Banks

In February 2022, a major landslip 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. For safety reasons speed and weight restrictions had to be introduced on some of the minor roads in the area.



The extensive landslip at Lyneham Banks has caused enormous problems in the area when a large section of the B4069 disappeared completely

The unstable ground had to be monitored, and after we were satisfied that movement had ceased, it was possible to carry out a detailed ground investigation involving boreholes and trial pits. The results of the investigations have been sent away for testing, and the results are being used to inform the design of the reinstatement works.



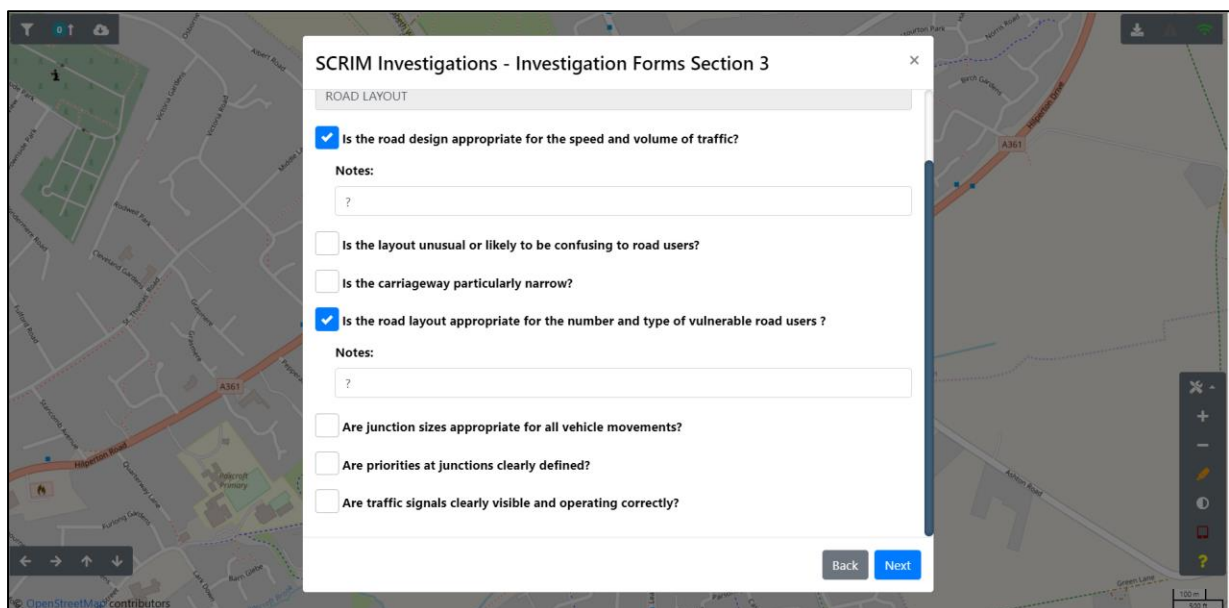
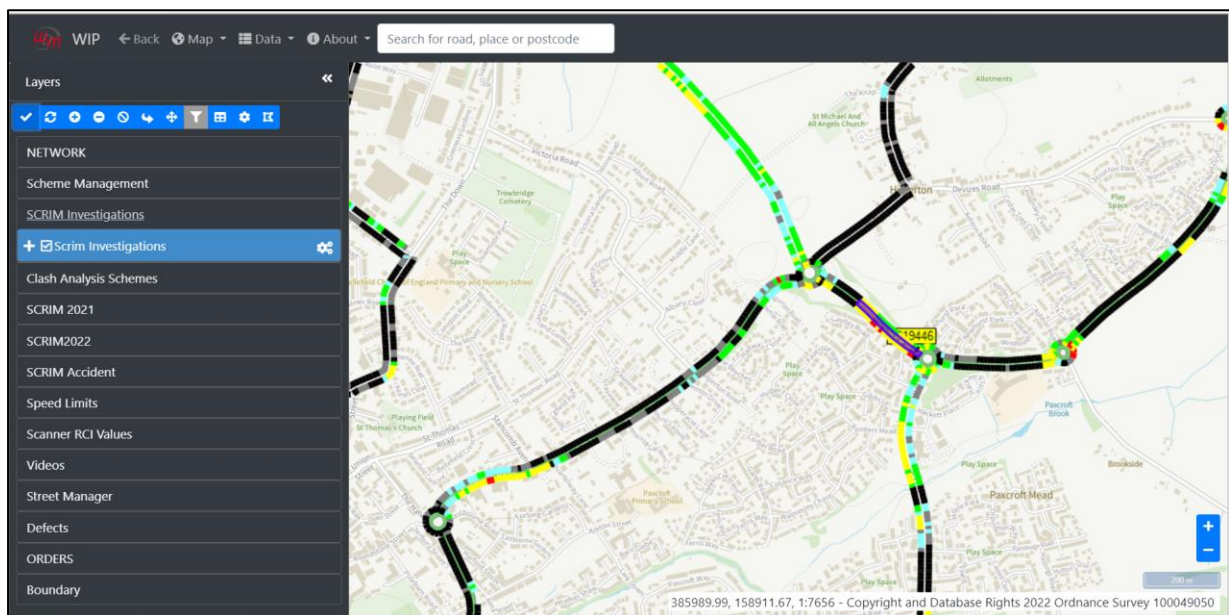
A detailed ground investigation with boreholes was undertaken to help design the remedial measures

The repair of the road will require substantial works to reconstruct the road and reduce the risk of further damage. The cost estimate and programme for this work is currently being developed.

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 process streetworks notices, manage highway works orders & budgets, programme/record pothole repairs and analyse condition survey datasets to produce prioritised sites for resurfacing.

It has enabled the introduction of mobile working for the streetworks and local highways technicians and engineers. In 2022 Scheme Manager mobile was launched for the Councils Skid Resistance programme; enabling skid resistance sites to be investigated using mobile software and for detailed site investigations to be submitted by engineers on site.



The Highways Infrastructure Asset Management System introduced in April 2018 enables better management of the highway assets.

In December 2022 HIAMS was rolled out as an asset management system for street scene and work is now underway to provide an asset management system for Public Rights of Way.

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 Permitting Schemes are meeting the initial objectives. The 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 analyzing and challenging the permit application submissions to effectively manage our Network Management Duty in order to minimise the disruption on the highway network.

The Year 2 evaluation report clearly 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 analyze, challenge and apply conditions to permit applications continues to benefit all road users in Wiltshire. The summary of the Year 2 evidences that the Scheme is being operated efficiently, with many processes and controls resulting in quantifiable changes to the planning and delivery of work on our highway network.

Key findings in Year 2



25,862 applications assessed
18,596 works undertaken across Wiltshire
68,164 days of highway occupation
51 works starting every day

The tables below show the breakdown of the proportion and duration of works undertaken in year 2 across our highway network.

% of work undertaken in Year 2 by work category and sector

Work Category	Electricity	Gas	Highway	Other	Telecoms	Water	Total
Major	0%	0%	4%	0%	2%	1%	7%
Standard	1%	1%	2%	0%	2%	1%	7%
Minor	1%	1%	16%	0%	24%	20%	62%
Immediate	2%	1%	1%	0%	5%	14%	23%
Total	4%	3%	23%	0%	33%	36%	

% of work duration (days) in Year 2 by work category and sector

Work Category	Electricity	Gas	Highway	Other	Telecoms	Water	Total
Major	1%	9%	10%	2%	3%	3%	29%
Standard	2%	2%	4%	0%	7%	2%	18%
Minor	0%	0%	14%	0%	17%	5%	36%
Immediate	3%	3%	1%	0%	2%	7%	17%
Total	6%	14%	29%	2%	29%	17%	

Activity type for work undertaken in Year 2 by sector (% of total)

Activity Type	Electricity	Gas	Highway	Other	Telecoms	Water	Total
Core Sampling			1.2%				0.3%
Disconnection or alteration of supply							
Highway improvement works			7.0%				1.6%
Highway repair and maintenance			89.0%	10.1%	0.5%		20.7%
New service connection	1.3%	0.2%		0.6%	1.0%	0.5%	0.6%
Optional permit (no fee)	0.9%		2.1%				0.6%
Permanent reinstatement	0.7%	4.9%		3.8%	8.5%	3.2%	4.2%
Remedial works	2.0%	10.7%		5.7%	11.6%	2.2%	5.2%
Section 58							
Statutory Infrastructure Works							
Utility asset works	0.6%			1.3%	18.4%	1.7%	6.8%
Utility repair and maintenance	94.6%	84.2%		24.7%	59.8%	92.2%	59.5%
Works for Rail Purposes				53.8%			0.5%
Works for road purposes			0.3%				

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.

A key example of this is the summer concerts held at the Longleat Estate. Due to significant disruption on our highway network during previous years events which hit national media, the Team undertook extensive engagement with the event company responsible for the Longleat Summer Concerts on their submitted traffic management plan. Together with representatives from National Highways, our Area Highways team, Wiltshire Police, the event company and their Traffic Management company the Team were able to instruct a revised traffic management plan to ensure the disruption to road traffic was minimal. Whilst

this involved many officer hours, the events and traffic management were a success which means that going forward there is a strong Traffic Management Plan which will be used for future events.

Blanket Temporary Traffic Regulation Orders

The team have been instrumental in designing and introducing a Blanket Temporary Traffic Regulation Orders process. (TTRO's) which is used to our Surface Dressing works. Blanket TTRO orders can cover multiple road closures in various locations over long periods of time and offer the additional benefit of greater flexibility to delivering works programmes, with a significant reduction in the need for individual TTRO's. This has resulted in 20 blanket orders being processed, saving approximately 150 individual TTRO's.

Co-ordination of works for development control

2022 was a challenging year for our Development Works Co-ordinator. Working collaboratively with our Development Control team we delivered many S278 works on our network, ensuring the works conformed to Wiltshire Council's Permitting Scheme Requirements. During the year we were involved with 53 sites on the highway network, all of which were at different stages of their construction life and required different methods of construction and traffic management. The most significant sites were Birds Marsh View relief road in Chippenham and the commencement of Southpoint Business Park roundabout construction on the A350 in Chippenham. The good work continues into 2023 with some significant S278 works including the redevelopment of J17 of the M4, Patterdown housing developments which includes 4 new S278 sites on one road and a new roundabout on Victoria Rd Warminster to provide access for hundreds of new homes for the area.

Inspections of Utility works

Our five 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, of completed works and of non-compliant works. In 2022 they completed over 6700 inspections.

Example of how significant urgent works are managed by the team.

Much of the work the network management team carry out is behind the scenes. A prime example of this is the recent and ongoing Wessex Water works at Noah's Ark junction with the B4040 in Charlton where a sewer main had collapsed and perished from the gasses that had corroded the pipework over many years.

An initial excavation was carried out in order to expose the perished pipework which confirmed the pipework had perished beyond repair. What started as urgent works for a mains burst developed into major works involving the replacement of 300m of old cast iron main with 315mm diameter plastic main.

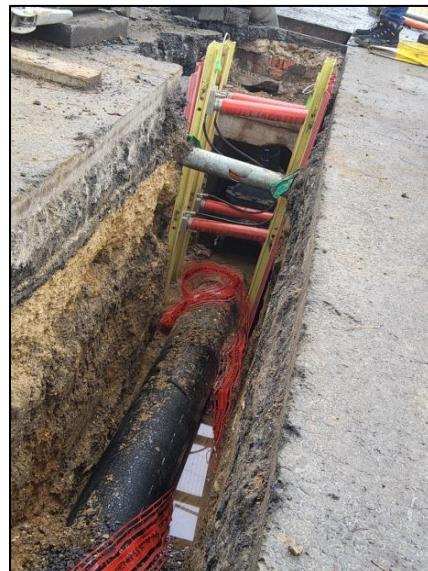
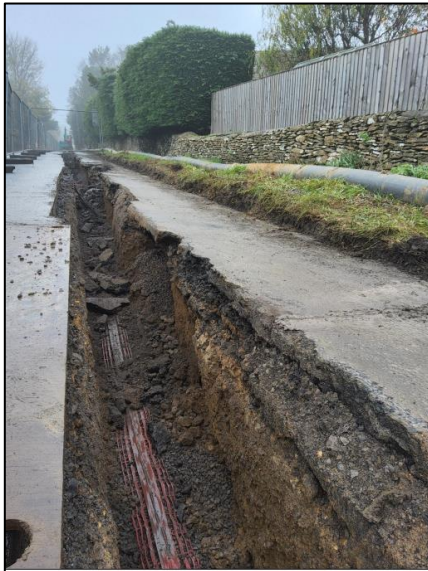
Whilst this work is being carried out the main still runs live and is pumped out of a chamber in the carriageway across the verge and through a field to another chamber over 200m away in what is called "An overlander" which allows the main to stay live whilst the main that is in the carriageway is replaced.

Our co-ordination work on projects like this starts with the team working with the Utility to understand the necessity of the work and to challenge the working methods, traffic management and works programme to ensure that disruption is kept to a minimum. Due to the extent of the works 6-day working was directed to reduce the overall duration and Wessex Water were requested to carry out additional local communications to ensure everyone was aware of why the works were happening. Throughout the works regular site visits are being carried out in order to check the progress, the site compliance in terms of

signing , lighting and guarding and that the highway reinstatement process is compliant with the statutory Codes of Practice.

Ongoing communication between the works site supervisor, our technicians and co-ordinators is vital to ensure that the works promoters are using their best endeavours to complete the work in a timely manner and the public are kept informed of the works.

This project is likely to several months to complete and is just one example of the over 18,000 works we get involved in each year.



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 two 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 have taken several years of work and they are finally now out for formal consultation from the DfT. 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.