

Highways, Footways and Structures

Environment and Sustainable Communities Overview
and Scrutiny Committee

4 October 2024



Introduction

Highways Act 1980 places a duty on the Local Highway Authority to inspect and maintain the adopted highway

Code of Practice for Well Maintained Highway Infrastructure 2018 advises the Local Authority how to manage their highway assets

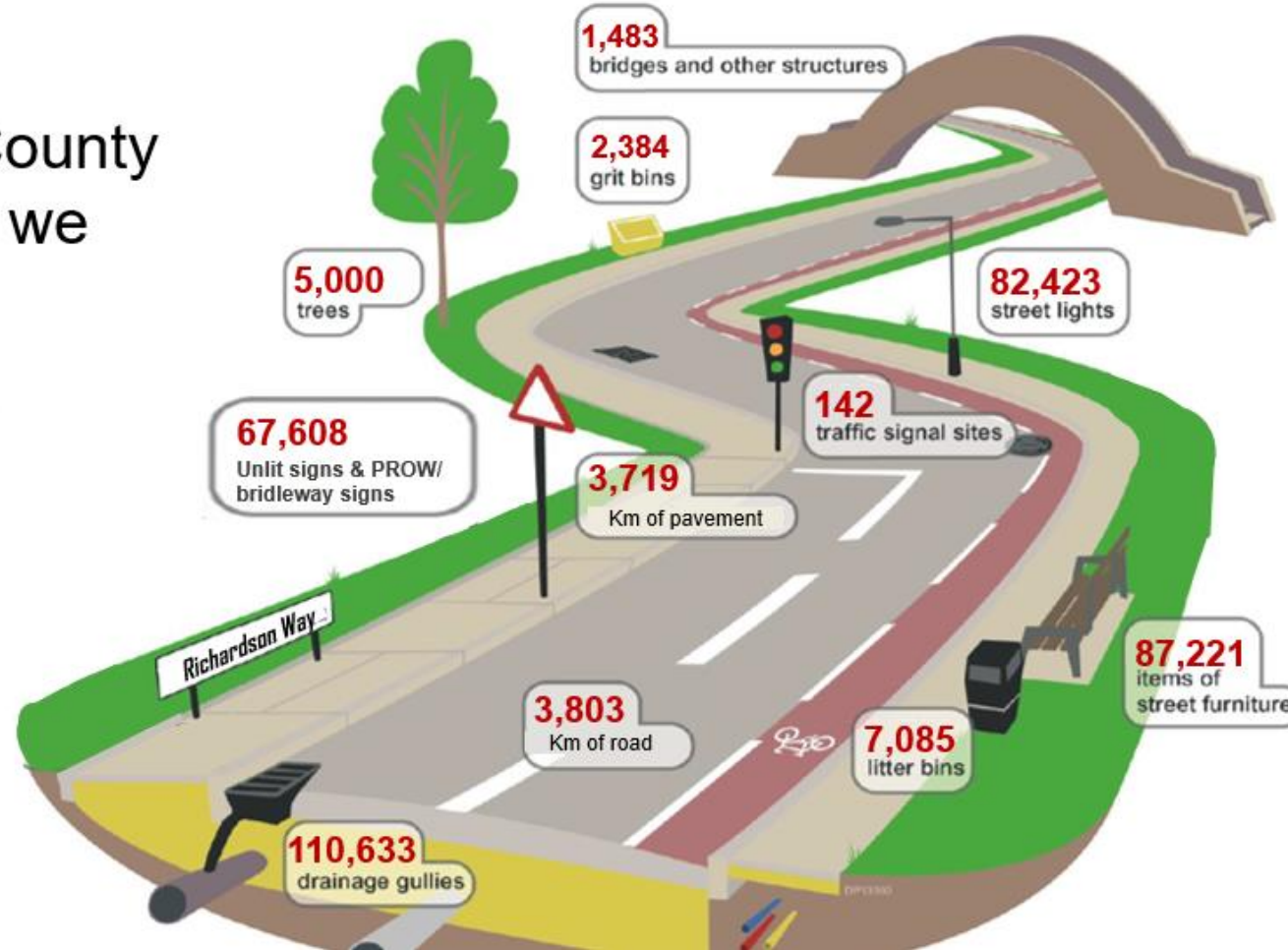
Highway Maintenance Plan sets out the Council's inspection regime, condition survey, reactive and routine maintenance service levels

Highway Safety Inspection Manual determines the Councils network hierarchy, inspection frequency and response times

Highways Asset Management Plan (HAMP) sets out the long-term plan for managing the highway asset by applying programmed maintenance

Highway Inventory

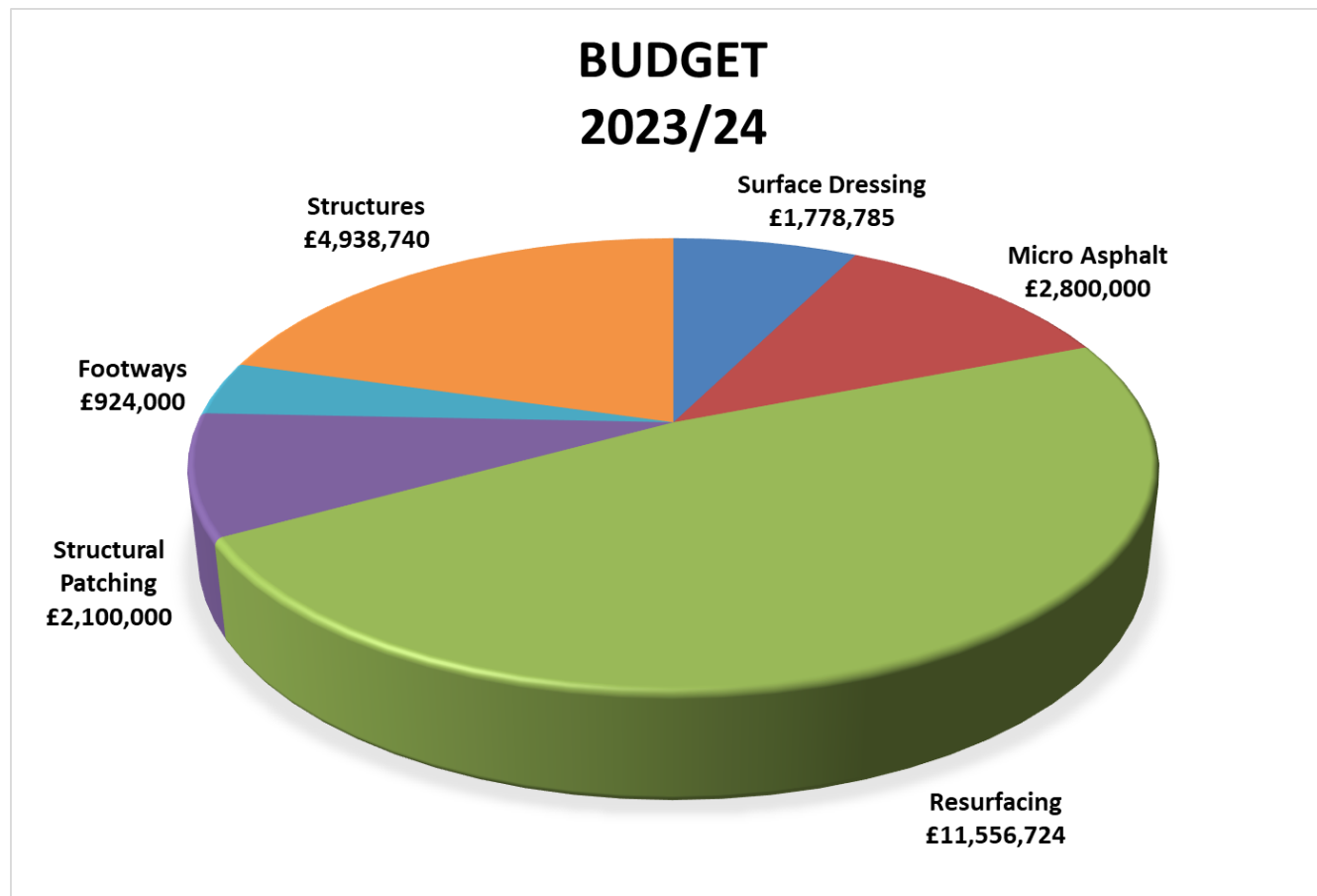
Across County Durham, we have...



Types of Maintenance

Type of Maintenance	Funding	Description
Reactive	Revenue	Responding to inspections, complaints or emergencies
Routine	Revenue	Regular consistent schedule, generally for patching, cleaning, grass cutting and landscape maintenance
Programmed	Capital	Flexibly planned schemes primarily of resurfacing, reconditioning or reconstruction

Work Type	Budget
Surface Dressing	£ 1,778,785
Micro Asphalt	£ 2,800,000
Resurfacing	£ 11,556,724
Structural Patching	£ 2,100,000
Footways	£ 924,000
Structures	£ 4,938,740
Total	£ 24,098,249



Highways

- The overall condition of the classified network remains quite static
 - Classified roads where maintenance should be considered:
 - A – 2.8%
 - B – 3.2%
 - C – 2.9%
 - Lower than National average
- Additional investment of £8.8 million, over a 3-year period, into the Unclassified network has resulted in:
 - A slight deterioration in the classified network condition, although still better than national average
 - Improvement of the condition of the unclassified network
 - So far, reduced the % of network that requires investment from 23% to 17% - Higher than National average



Highways

- Highways 2023/24 Capital Re-surfacing Programme completed approximately 234,00 square metres, at an investment of circa £11.6 million
- Supplemented by the Specialist Surfacing Programme, including:
 - **Surface Dressing:**
 - The work involves spraying bitumen binder on a clean, dry road surface, over which stone chippings are spread
 - To be successful, surface dressing relies upon warm dry weather
 - Works is usually carried out between May and August
 - Completed nearly 300,000 square metres of dressing, an investment of approximately £1.8 million



Highways

- **Micro Asphalt:**

- A preventative maintenance treatment, used to:
 - seal the existing road surface
 - improve the texture
 - helps eliminate water ingress
- Mostly used in residential areas with slower moving traffic
- The work involves applying a base and top layer of slurry to the existing road surface.
- Completed over 280,000 square metres of micro asphalt, an investment of circa £2.8million.



- **Structural patching:**

- Work undertaken to cut out sections of damaged carriageway, including any wider deterioration and replaced with a structural patch
- Completed 60,000 square metres, an investment of circa £2.1 million

Highways - Major Projects

- In financial year 2023/24, Highways commenced and / or delivered a number of Major Projects including:
 - **The Baileys Public Realm Improvement Works**
 - Commenced August 2023
 - Anticipated completion January 2025
 - Without investment the area would have continued to deteriorate generating:
 - Complaints
 - Public liability claims
 - High future maintenance costs
 - Important to maintain the historical / aesthetic appearance of the streetscape
 - Ensuring its attractiveness to visitors, students and residents of the City



Highways - Major Projects

- **Framwellgate Peth**

- The A691 Framwellgate Peth is the road from County Hall to Milburngate Roundabout
- In financial year 2023/24 £1 million of capital funding was made available for the repair of the carriageway at Fram Peth
- The essential resurfacing works were completed February 2024, at a cost of circa £550K
- Project underspend reallocated to upgrading North Road Public Realm Improvements



Highways - Major Projects

- **Crakehill Landslip**

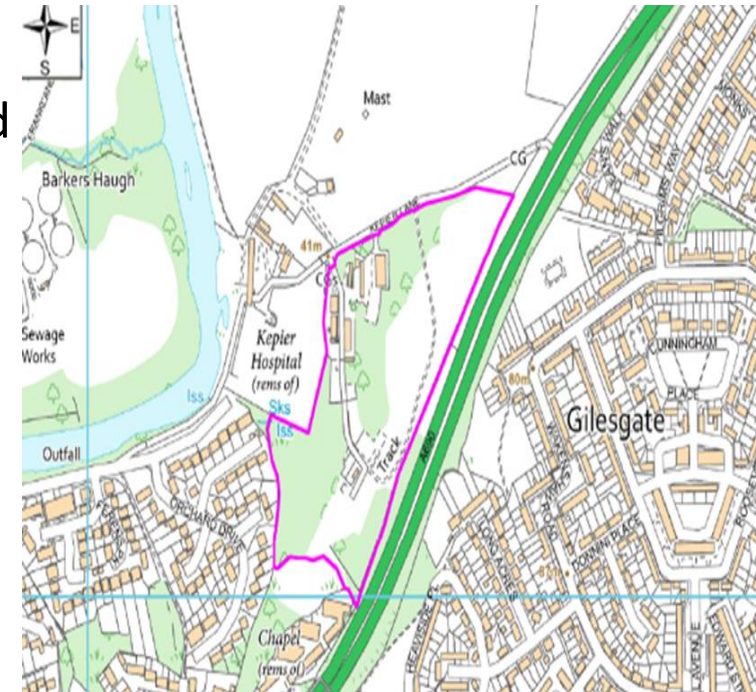
- The C31 Crakehill Bank is situated between Hamsterley and Witton-le-Wear and is also one of the access routes to Hamsterley Forest
- Road closed in January 2023 to ensure public safety due to ongoing erosion to the top of the southern embankment
- Ground Investigations completed to inform a detailed design solution to realign the carriageway
- In financial year 2023/24 £2 million funding secured to be profiled £1 million in 2024/25 and £1 million in 2025/26
- Land negotiations and detailed design - 2024/25
- Works – 2025/26, solution pending



Highways - Major Projects

- **A690 Landslip**

- The A690 / NPG Training centre is located approximately 1km north-west of Durham city centre
- The source of the landslip is approximately 5 metres underground beneath the A690 and adjoining land in the ownership of NPG, any ground movements impact on the stability of the A690 carriageway and the embankment
- A MTFP (13) capital bid for £15 million was approved to fund the project, profiled over financial years 2023/24 to 2025/26
- Design solution - anchored contiguous piled retaining wall
- Project scope also includes junction improvements on the A690 into NPG training centre
- Works Programme:
 - Junction Improvements – November 2024 for approximately 6-8 weeks
 - Piling Works – January 2025 for approximately 12 months



Footways

- Investment into footway capital improvement projects has been paused following the announcement of central governments “digital rollout programme”
- Safety critical footway repairs have continued however the extensive broadband installation continues to impact on the footway network
- Until this programme nears completion funding has been reallocated to other areas, including the Unclassified network
- Longer-term additional investment will be required when the capital footway programme is reintroduced, likely 2026/27
- The % of footways that are classified as requiring maintenance is 31% (based on 2023/24 data) - Higher than National average
- Footway Defect repairs – 1126 cyclic safety inspections annually



Footways

- In 2023/24 1.3 miles of rural link footways were constructed, an investment of £770K
- The footway surface treatment (FST) programme has continued over the last 3 years, £424K investment in 2023/24
- Durham City's Clean and Protect Programme
 - Programme of monthly and quarterly cleanses in place since 2022/23
 - Market Place, Magdelene Steps - Monthly
 - Old Elvet Bridge – Quarterly
- Chewing Gum Removal Programme
 - Chewing Gum Task Force funding secured £27.5K – financial year 2024/25
 - Clean and Protect in:
 - Claypath, Silver Street, including Framwellgate Bridge and Old/New Elvet Bridge
 - Works programmed September to October 2024



Structures

- Durham's structures overall are generally in 'fair' condition, however a number of structures are coming to the "end of their design life"
- This has resulted in an increase in the structures maintenance backlog figure
- The backlog is measured using bridge condition data
- Principal Inspections (PI) - every 6 years
- General Inspections (GI) - every 2 years
- Intrusive Inspections are carried out when required from findings of PI's and GI's
- Current budget circa £4.9 million



Structures

- Additional £5 million funding approved in financial year 2023/24
- £2.5 million profiled over financial years 2024/25 and 2025/26
- Funding will be utilised to develop feasibility studies and detailed designs on the red RAG rated top 10 priority structures
 - Leazes Footbridge
 - Kingsgate Footbridge
 - Baths Footbridge
 - A68 Witton le Wear New Bridge
 - Bridge Repair/Refurbishment
 - Pier Protection
 - Harelaw Bridge
 - Wolsingham Bridge
 - Lambton Bridge
 - A167 Browney Bridge
 - A167 Croxdale Bridge
- Additional capital investment will be required to fund works

Structures – Major Projects

- **Leazes Footbridge**
 - Closed for public safety - February 2024
 - Footbridge found not to be able to carry 'live loading' (pedestrians and cyclists)
 - No danger of collapse as 'live loading' removed
 - The existing footbridge is not DDA compliant
 - The option to repair or replace is not financially viable
 - Provision of signalised crossing and cycleway on Gilesgate Roundabout
 - Bridge demolished – October 2024



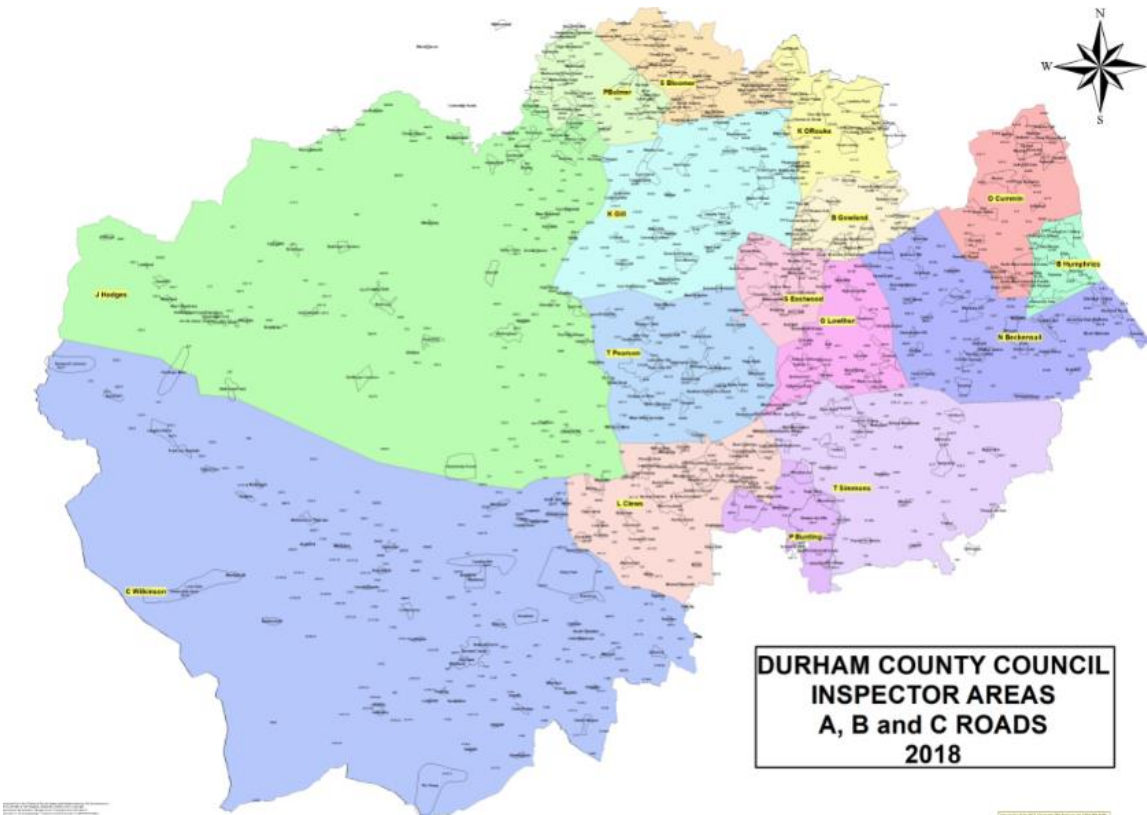
Structures – Major Projects

- **Whorlton Bridge**

- Located in Teesdale, spanning the river Tees connecting the village of Whorlton to the area south of the bridge leading to the A66.
- UK's oldest road iron chained suspension bridge
- Scheduled Ancient Monument
- Closed for public safety - December 2020
- £3.25m budget secured through LUF 1 funding bid
- Works cost circa £8.8 million
- Dismantling of bridge - September to October 2024
- Inspection, testing and painting of components – September to November 2024
- Re-erection of bridge – December to April 2025



Highway Inspector Areas / Safety Inspections



Safety Inspections

- 1,126 statutory safety inspections are carried out each year to specific frequencies by 16 qualified Highway Inspectors.
- Inspection frequencies are determined by a number of factors including:
 - Category within the highway network
 - Character and traffic volume
 - Current and proposed usage
 - Routes to important local facilities (schools, hospitals etc..) and to the strategic network
 - Traffic sensitive routes
 - Accident history
 - Vulnerable users or people with special needs
 - Local knowledge / expertise

Highway Defect Repairs

- The number of defects are proportionate to the size of the highway network
- Annually over 46,000 defects are identified
- Defects completed on time – approximately 93% each year over all categories
- Defect repair performance is difficult to measure accurately against other highway authorities due to the size and type of network combined with the different response times
- Repudiation rate of 3rd party claims = 94%



Defects Repair Categories / Revenue

- In accordance with the Highway Safety Inspection Manual each defect is given repair category based on the danger/potential danger and the hierarchy of the highway:
 - 2 hours/immediate repair- Category 1.1 defect
 - 72 hours - Category 1.2 defect
 - 14 days – Category 2.1 defect
 - 3 months – Category 2.2 defect
- With reduced capital budgets, the condition of the highway network continues to deteriorate resulting in:
 - Increased revenue costs
 - An increase in the Highways maintenance backlog
- Planned capital maintenance reduces the number of safety defects
- Prevention is better than cure



Innovation – The Road to Net Zero

- Net Zero Roads Initiative
 - First authority in the UK to use net zero road surfacing within its road resurfacing programme
 - Introducing this new material will play a key role in increasing the authorities carbon savings
 - Working collaboratively with Rainton Construction and Low Carbon Materials
- Elvet Hill Road, Durham
 - First trial site – March 2024
 - ACLA in binder course
- <https://www.youtube.com/watch?v=YHrM3kDhDpo>



Innovation – The Road to Net Zero

- Additional trial sites identified:
 - North Road
 - Milburngate
 - Crossgate Peth
 - Westlea Road, Seaham
- Further development works required to introduce ACLA into the surface course as well as the binder course
- Further trial site identified:
 - C12 Dryburn View/Finchale Road, Framwellgate Moor
 - October 2024

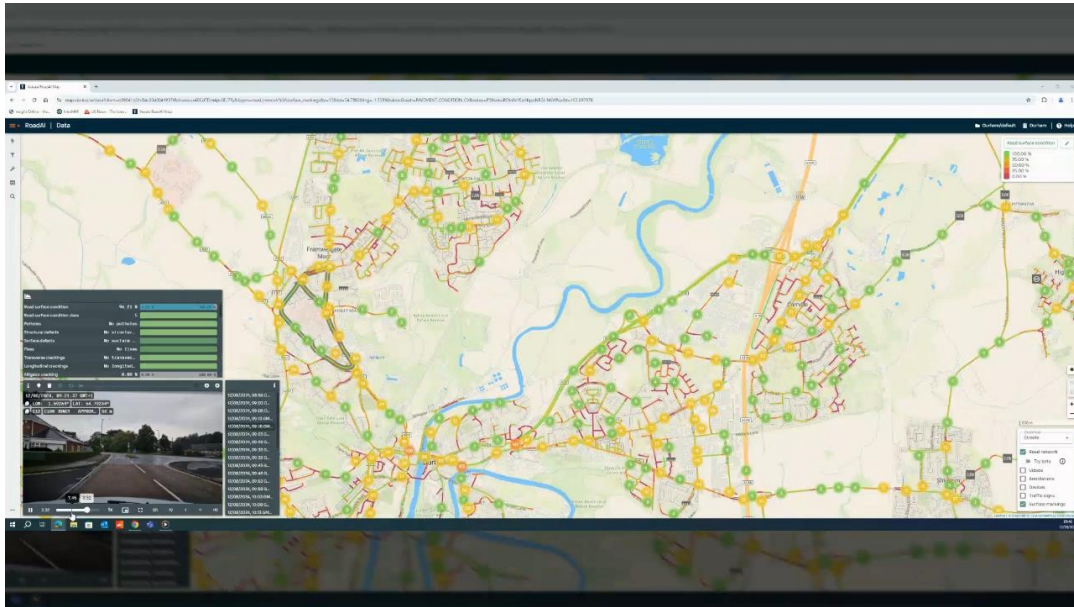


Innovation – Artificial Intelligence (AI)

- Benefits of AI include:
 - Assists with defect identification
 - Daily monitoring of network condition
 - Reduces the number of site visits
 - Significant fuel, cost and staff time savings
 - Reduced carbon footprint
 - Assesses network condition
 - Assists ultimately with scheme identification
 - Robust defence against 3rd party public liability claims



AI – Data Collection



Digital Rollout - Background

- The Government's target is for gigabit broadband to be available to 85% of the UK by 2025 and nationwide by 2030
- The Government's policy is that gigabit-broadband infrastructure will be mostly built using private investment. Private companies decide when and where to build infrastructure based on commercial factors.
- The government's flagship £5 billion programme (Project Gigabit) will enable hard-to-reach communities to access lightning-fast gigabit-capable broadband by targeting homes and businesses that are not included in broadband suppliers' commercial plans.
- In April 2024, 81% of UK premises had a gigabit-broadband connection available, according to telecoms regulator, Ofcom.
- Broadband and mobile must be treated as the fourth utility, with everyone benefiting from improved connectivity.

Coordination, Inspection & Enforcement of Digital Works

The Highway Network Management Section works with digital broadband suppliers to:

- to ensure the safety of their works
- to minimise inconvenience to people using a street
- to protect the structure of the street and the apparatus in it.

In financial year 2023/24 the Highway Network Management Section have:

- Coordinated 6,320 individual digital works
- Inspected 5,797 digital works including live sites and reinstatements
- Issued 612 Fixed Penalty Notices for breaching permit conditions, working without a permit etc

On-Going Digital Works

There are currently nine digital broadband suppliers working in County Durham. These include:

- Virgin Media, Openreach, Netomnia, Go-Fibre, Rymore, Fusion Fibre, Voneus, Broadband 4 Rural North (R4RN) and Rural Fibre 4 U (RF4U)

During 2024 and into 2025 the digital roll-out will take place in 27 towns and villages throughout County Durham including:

- Barnard Castle, Bolam, Bowburn, Chilton, Cockfield, Consett, Coxhoe, Eastgate, Evenwood, Ferryhill, Gilesgate, Fishburn, Frosterley, High/Low Etherley, Hilton, Ingleton, Middleton-in-Teesdale, Newton Aycliffe, Sedgfield, St Johns Chapel, Trimdon(s), Toft Hill, Wearhead, West Auckland, West Cornforth and Wolsingham.

These works will provide gigabyte broadband to approximately 52,000 properties.

Challenges

- Reduced Budget Allocation
- Climate Change
- Global Economy
- Political Change – local and national
- Devolution
- Skill Shortages
- Digital Rollout
- Maintaining the highway network in a safe and serviceable condition with reduced budgets whilst maintaining customer satisfaction

Any Questions ?