

Investing in our Well-Connected Communities Highway Capital Programme 2024/2025

11.1 Appendix 1 - Additional Background Information

1.1. **The Highway Asset** - Wolverhampton's highway network is one of the council's largest assets, with a Gross Replacement Cost exceeding £1.0 billion (see breakdown below):

Highway Asset inventory & Gross Replacement Cost	
Asset type	Gross Replacement Cost
Over 460 miles of carriageway,	£425,000,000*
Over 800 miles of footway	£110,000,000*
34,017 road gulleys and associated highway drains	£22,000,000*
140 highway structures comprising 57 bridges, 1 tunnel, 21 subways, 17 footbridges, 19 culverts and 25 retaining walls	£60,000,000*
27,000 Streetlights	£46,000,000*
3,000 illuminated signs	£3,000,000*
Non illuminated signs	£3,000,000*
248 traffic signals, 120 CCTV cameras, 50 VMS, over 850 MESH communication devices	£20,000,000
Total Gross Replacement Cost	£689,000,000
note (*) means 2010 costs	£1,017,026,872 (inc inflation)

- 1.2. **Highway Asset Management** - Given the scale and complexity of the highway asset it is essential that a robust and resilient approach is developed to manage and maintain the highway estate. To achieve this, the council employs a strategic approach that uses data and processes to enable informed decision making. This structured approach, data led approach to highway infrastructure maintenance allows us to operate, maintain and restore our highway assets efficiently, effectively and providing value for money. Asset management seeks to optimise the allocation of resources for the management, operation, preservation, and enhancement of the highway infrastructure to meet the needs of current and future users of the transport network. This approach accords with the Council's Asset Management Plans and incorporates the principle of lifecycle planning.
- 1.3. The development of the council's highway maintenance programmes is underpinned by a robust asset management approach as outlined above. However, whilst it is recognised that the current Highways Asset Management Plan needs to be refreshed, detailed plans now exist for the Intelligent Transport Systems and Street Lighting assets. Work on refreshing the Highway Asset Management Plan and accompanying

documents will commence during 2024-2025. It is hoped that this work will further inform and outline the future investment strategy supporting the council's highway network for the future.

- 1.4. **Highway funding** - There is national recognition that the level of investment in highway maintenance has been significantly insufficient for many years. The Local Government Association estimate that the current funding gap between what is available and would be needed to keep our roads in a reasonable condition would be circa £20 million whereas the annual maintenance budget is in the region of £3.3 million. This emphasises the need for the Council to maximise its available resources and prioritise its activities carefully and efficiently.
- 1.5. The capital programme includes separate allocations for the development of the highway network and for capital maintenance. These programmes are predominantly funded through the City Region Sustainable Transport Settlement (CRSTS) for Highway Maintenance and delivery of Local Network Improvement Plans (formerly Integrated Transport Block allocation). As CRSTS is a 5-year settlement, indicative allocations for this funding have been confirmed though to 2026-2027 and formal confirmation from the WMCA of the 2024-2025 figures is imminent. This settlement is further supplemented by Council prudential borrowing and third-party funding secured through planning obligations or agreements through section 278 or section 39 of the Highways Act.
- 1.6. This approach recognises the need to develop a 'pipeline' of future projects by undertaking the initial development work that might be necessary to get projects 'shovel ready'. Such work might include traffic modelling, feasibility, site investigation, detailed design, and public consultation, among other activities. This preparatory work is important as it enables the programme to be flexible, dynamic and positions the council to respond to changing circumstances. For example, the council has been particularly successful in securing additional funding allocations which have been announced at short notice, further supporting our regeneration ambitions, and building resilience into our network.
- 1.7. This method also allows for flexible management of budgets with the ability to bring forward alternative projects to accommodate any slippage within the programme to react to changing circumstances or new funding opportunities. This flexibility and 'pipeline' approach has allowed the Council to bid successfully for a number for major projects over the last few years.
- 1.8. Progress reports will be submitted to councillors at least annually to provide an update on the work completed; review the priorities for future work; add further projects to the List of Projects for Development; and to seek necessary approvals for the development and delivery of projects as required.
- 1.9. **Programme Development** - The proposed projects that form the Transportation Capital Programme for 2024-2025 are set out in Appendix 3. The estimated cost of each project is indicated, although costs will be refined as each scheme progresses through the

feasibility/design/consultation process. There is an intentional 'over programming' of projects to reflect the reality that some projects will inevitably be delayed due to unexpected circumstances, changes to priorities or outcomes of consultation. The various work programmes, and the individual projects which make up those programmes, will be managed with the overall available resources for the relevant financial year and in accordance with the Authority's developing priorities. All works on the highway are coordinated through the Traffic Managers to ensure that any disruption is minimised.

- 1.10. Delivery of the programme will be achieved using a combination of the Council's own employees and external contractors.
- 1.11. Employees will seek to deliver the programme in the most cost-effective way and minimise the impact upon communities and highway users by, wherever possible coordinating maintenance projects with those for developing and improving the highway network.
- 1.12. **Highway Maintenance Programme** - Currently the highway maintenance programme is developed using a prioritisation process. The priority given to each scheme depends on a number of factors including condition survey data, maintenance records, visual inspections, customer complaints, ward councillor requests, third party claims and integration to other schemes, with the worst performing locations prioritised for inclusion on the annual programme. This approach has the effect of reducing the need for reactive maintenance and hence, the pressure on the Council's revenue budget for maintaining the highway network. It has also been shown to reduce the number (and cost) of insurance claims against the Council and improve overall resident satisfaction. Further development of this assessment process aims to factor in areas subject to regeneration. This will allow the opportunity to further maximise and target our investment to ensure an integrated and comprehensive approach to the management of the highway network. This will also ensure that this significant investment supports the overall ambitions for our city and aligns with the priorities of Our City Our Plan.
- 1.13. The Highway Maintenance programme is funded through the 'Highway Maintenance Fund' allocation and is split into four sub-programmes.
- 1.14. **Highway Maintenance: Carriageways** - Capital Maintenance, funded through the CRSTS allocation, is the major source of funding for highway maintenance projects for carriageways. Some additional funding is provided from local resources. It is essential to build in flexibility to allow for exaggerated deterioration and conflicting issues such as utility works, or major projects / developments. Schemes can vary from a full reconstruction and resurfacing replacing the existing carriageway, to a pre-patch and surface treatment to extend the life of the existing carriageway. The programme is subdivided into Principal, Non-Principal and Carriageway Surface Treatments.
- 1.15. **Highway Maintenance: Footways** – As with the carriageway programme above the footway programme is based on the same prioritisation process, however, the vast

majority of the programme is delivered using preventative maintenance techniques such as thin surface treatments to extend the life of the existing footway surface. The programme encompasses the Disabled Access programme which seeks to improve the accessibility of our footway network for users with physical or sensory disabilities, along with the funding to maintain the 30 miles of the Public Rights of Way across the city.

- 1.16. **Highway Maintenance: Other** - The Streetlighting Replacement Programme has been developed and approved using the established street lighting prioritisation process for replacing worn out columns and upgrading to new energy efficient lighting. The emerging asset management plan underpins this work and supports the roll out of emerging technologies such as smart photocells. Furthermore, this programme supports the Intelligent Transport Systems asset management plan by contributing towards the maintenance strategy required to achieve steady state maintenance for the Intelligent Transport Systems.
- 1.17. **Highway Maintenance: Structures** - The Council routinely inspects and assesses all its highway structures. The inspection programme is delivered by specialist consultants and is undertaken in accordance with the requirements of CS 450 "Inspection of Highway Structures". General inspections are undertaken every two years, with a Principal Inspection every 6 years. Defects identified are then programmed to be dealt with, where practical, from the approved capital budget. Larger projects such as bridge strengthening, or replacement will usually require separate funding and will involve applying for specific government grants and securing budget approval.
- 1.18. **Network Development Programme** – This programme is currently funded through the Local Neighbourhood Investment Plan (formerly the Integrated Transport Block) and is split into three sub-programmes.
- 1.19. **LNIP: Road Safety & Traffic Management** - This programme has been a major contributory factor in the reduced number and severity of road traffic personal injury accidents in Wolverhampton. The programme is developed using a prioritisation process in which each location is assessed on a range of factors including accident history, traffic flow, vehicle speeds and community surroundings. Potential projects are included in the programme based on issues that have been identified, often by residents and businesses, as traffic management or road safety concerns. However, the list of projects requested is extensive and the prioritisation process means that some locations may remain on the list for many years.
- 1.20. **LNIP: Safer Routes to School** - This programme contains projects which are developed in conjunction with schools with the aim of tackling road safety concerns, reducing traffic congestion, improving air quality, and localised on-street parking problems. The programme contributes to the Council's objectives in relation to tackling child obesity and improved fitness by encouraging children to walk and cycle to school rather than being driven.

- 1.21. **LNIP: ITS Network Development** – The Network Development programme aims to improve the operation of the highway network to secure the safe and expeditious movement of traffic through use of Intelligent Transport Systems. Such systems are managed through the Highway Management Control Centre which acts as the central pillar for the delivery of the operation and management of the highway network and include Variable Message Signs, CCTV, and a range of smart technologies and sensors from artificial intelligence and machine learning to specific sensors that record speed, journey time, traffic flow and type and air quality.
- 1.22. Additionally, the programme supports the use of emerging technologies that improve how we maintain the highway network. The most recent example includes the installation of gulley sensors at high-risk flooding locations. Such sensors could significantly change our operations as they provide live information on the status and performance of a gulley, indicating whether attention is required. Viewing this information remotely significantly improves our maintenance capability allowing our operational response to become more efficient thus ultimately leading to a reduced risk of surface water flooding and greater confidence for residents affected.
- 1.23. The roll out and management of such equipment is essential for the highway authority to deliver the statutory Network Management Duty as it facilitates the live interaction with many systems, such as traffic signals, CCTV, VMS, Gulley sensors, to influence and improve journey time reliability and provide live information direct to road users whilst improving our operational monitoring and response.
- 1.24. Recognising the importance and value of intelligent data, not only supports our understanding of network performance but informs policy development and decision making. Embracing emerging technologies, we ensure that the most effective systems are utilised to support our aspirations in delivering a better transport system for our communities.