

Urban Traffic Management & Control Capital Programme 2024/25

Date: 20th March 2024

Report of Joel Dodsworth (UTMC Manager)

Report to the Chief Officer (Highways and Transportation)

Will the decision be open for call in? Yes No

Does the report contain confidential or exempt information? Yes No

Brief summary

The key pillars of the Best City Ambition are Health and Wellbeing, Inclusive Growth and Zero Carbon. The Best City Ambition states the objective of 'delivering a low carbon transport network'. It also aims to reduce reliance on the private car and help people get around the city easily and safely. The schemes proposed within this report contribute to achieving those objectives by upgrading infrastructure to a more efficiently maintainable standard that uses less energy, introducing technology to prioritise buses through traffic signals and improving level of service for active travel modes. Such improvements will provide a safer and more efficient service for Leeds City Council customers and enable greater benefits to be realised from wider investment programmes.

The purpose of the report is to seek approval to implement a programme of works to prepare and deliver critical traffic signal asset renewal, telecoms infrastructure upgrades, traffic signal control strategy upgrades and the introduction of bus priority at various sites across the LCC network during the 2024-25 financial year, as detailed in Appendix A. The works will be funded from the City Region Sustainable Transport Settlement (CRSTS) and Department for Transport (DfT) Traffic Signals Obsolescence Grant (TSOG).

Recommendations

- a) The Chief Officer (Highways and Transportation) is requested to:
- i) Review and approve the prioritised list of proposed schemes set out in Appendix A for delivery as part of the 2024/25 Urban Traffic Management & Control (UTMC) Capital Programme.
 - ii) Approve the injection of £1,832,000 from CRSTS and £500,000 from TSOG into the UTMC Capital Programme 2024/25.
 - iii) Give authority to incur expenditure of an expected £2,332,000 (inclusive of all works costs, fees and legal costs) which will be funded by way of £1,832,000 from the CRSTS and £500,000 from the DfT's TSOG.

Why is the proposal being put forward?

1. The purpose of the report is to seek approval for the 2024-25 programme of UTMC works, funded from CRSTS and TSOG, and to authorise the detailed development, consultation, preparation and delivery of the component schemes.
2. UTMC works are not included in the Council's annual Capital Programme allocation of funds. However, the 5-year CRSTS, of which this report relates to Year 3, provides an annual allocation of funds intended for the maintenance and upgrade of traffic signals infrastructure. The proposed programme continues three underlying themes initiated in 2022/23.

What impact will this proposal have?

Wards Affected:

Adel & Wharfedale; Beeston & Holbeck; Burmantofts & Richmond Hill; Calverley & Farsley; Chapel Allerton; Cross Gates & Whinmoor; Gipton & Harehills; Headingley & Hyde Park; Horsforth; Killingbeck & Seacroft; Little London & Woodhouse; Moortown; Morley South; Otley & Yeadon; Pudsey; Roundhay; Temple Newsam; Wetherby

Have ward members been consulted? Yes No

General Refurbishment

3. The accepted industry view on traffic signal equipment is that it has an expected lifespan of approximately 15 years. In addition, older models of controller equipment become unmaintainable due to unavailability of spares. Older equipment can also be more unreliable, leading to longer down time in the event of failure. In Leeds, the average age of traffic signal controllers is approximately 10 years, which is above the West Yorkshire average and will increase if no action is taken. An ongoing programme of refurbishment is necessary to modernise the controller stock and replace any on-street equipment that has been identified as in poor condition following periodic inspections.
4. The proposed programme continues the work of previous programmes of delivering a fully LED and IP asset, contributing to the Council's carbon neutral objective. New equipment has a far lower carbon footprint (e.g. LED lamps compared to halogen) with associated energy cost reduction, is more flexible in terms of monitoring and control - being Internet Protocol (IP) capable - and can be more easily adapted to introduce innovative new technology and features such as bus priority. It is understood that halogen lamps will soon cease to be manufactured, although it is not known exactly when. There are 143 remaining sites with halogen lamps (approximately 21% of the total traffic signal asset). The proposed programme addresses 35 of the remaining sites. It is projected that the conversion will be completed in 2027/28 based on the current conversion rate.
5. Sites are selected for refurbishment based primarily on age with other factors such as obsolescence also considered. Sites may also be brought forward, for example, if refurbishment supports a wider transport investment programme in the surrounding area. The proposed list of sites is set out in Appendix A.
6. As part of the refurbishment of signals, this programme will also seek to upgrade the control strategy where possible to improve the efficiency of control and minimise delay to all users. All pedestrian facilities will be upgraded in line with the previously published 2021 report *Traffic Signal Operation at Standalone Crossings*. Upgrading the control strategy will also facilitate improved performance of bus priority and support Vision Zero objectives.

Telecommunications Infrastructure

7. Work to modernise the UTMC telecoms infrastructure began with investment through recent funding programmes including Leeds Public Transport Investment Programme (LPTIP). This work introduced a private fibre network in the city centre that replaced older, failing, wireless technology. Upgrading telecommunications infrastructure is critical to delivering a more reliable, efficient network that is capable of enabling the Council to achieve its Transport Strategy objectives. For example, the traffic signal priority system for buses is operated centrally and relies on low latency, reliable telecoms to each site to provide useful priority. Significant further investment is required to address legacy telecoms issues across the wider network and the proposed programme builds on the work that has already begun.
8. The private fibre network that has been implemented in the City Centre provides a more reliable, secure, and future-proofed network and the works proposed in this report will connect infrastructure introduced through various wider programmes such as LPTIP and the City Centre Package (CCP). A secondary benefit of this work is that it enables telecoms circuits provided by third parties to be ceased and thus provides a saving to the Council. The proposed works are set out in Appendix A.
9. In addition to the private fibre network, there is work ongoing by LCC Integrated Digital Services (IDS) to roll out the Leeds Full Fibre Network (LFFN) which aims to provide digital fibre circuits across the city through a third-party provider, including for CCTV cameras. The private fibre network and LFFN are complementary and UTMC is working with IDS to maximise opportunities to upgrade and share telecoms across the city. Utilisation of CCTV circuits for UTMC data requires additional investment in the surrounding traffic signals infrastructure and the proposed programme will support that work. This work will be undertaken as and when the circuits are delivered.

Network Performance

10. The systems that control and monitor traffic signals across Leeds require development to enable use of richer data from newly installed sensors. This programme proposes development of the systems to incorporate vehicle classification data that will facilitate improved bus priority. This programme also proposes to continue work to optimise signal timings in areas of the network that have been particularly impacted by change as a result of wider transport investment schemes, focusing on improving bus journey times, minimising pedestrian waiting times and improving reliability.

How does this proposal impact the three pillars of the Best City Ambition?

Inclusive Growth

Health and Wellbeing

Climate Emergency

11. The programme will support the Best Council Plan 2020-25 objectives to 'promote sustainable and inclusive economic growth' by delivering infrastructure that improves level of service for walking, cycling and buses.
12. Pedestrian/cycle crossing upgrades will be delivered in line with the previously published *Traffic Signal Operation at Standalone Crossings* report. Safety timings will be increased to reflect a lower design walking speed based on studies suggesting that the mean walking speed for those aged over 65 years was 0.8m/s. Introduction of sensors that can place a demand for a crossing without having to press the button provides more inclusive infrastructure to users for whom pressing the button is difficult.
13. Ongoing conversion of halogen lamps to LED will aid increased efficiency of signal operation and promotion of more sustainable transport options which contributes to the Council's Climate Emergency targets.

What consultation and engagement has taken place?

14. Subject to approval of the programme, Ward Members will be consulted prior to any works commencing in order to seek clarification of the impact of the works for all parties.

What are the key risks and how are they being managed?

20. A key risk associated with the proposals are that inflation will reduce the volume of works that can be delivered. The progress of the scheme and associated cost pressures will be reported regularly to the Chief Officer (Highways and Transportation) and the scope of the programme reviewed to ensure schemes are delivered within the available funding.

What are the legal implications?

21. There are no legal implications arising from the content of this report. However, as the UTMC Capital Programme is implemented across multiple wards and given the value of monies concerned, this report is eligible for call-in.

What other options were considered?

22. An alternative approach to these proposals would be to focus purely on critical asset renewal. This would maximise the volume of sites that can be converted from halogen to LED and reduce the average age of the asset more quickly. However, focusing on this at the expense of increased efficiency and improved level of service for sustainable transport modes would ultimately result in increased vehicle emissions that would undermine the carbon savings realised from converting halogen to LED.

How will success be measured?

23. The success of the proposed scheme will be measured through the following KPIs, regularly reported to Chief Officer (Highways and Transportation):
 - Reduction in energy consumption
 - Number of sites with active bus priority
 - Number of crossings operating in line with updated policy

What is the timetable and who will be responsible for implementation?

24. It is intended that the implementation of this programme of work be undertaken and completed within the 2024/25 financial year.

Appendices

- Appendix A: UTMC Proposed Programme 2024-25
- Appendix B: EDCI

Background papers

- None.