

Report of the Strategic Director of Place to the meeting of Executive to be held on 4 January 2022

Subject:

AO

Final Arrangements for the Establishment of a Joint UTMC Service for West Yorkshire

Summary Statement:

The purpose of this report is to update Executive on the work carried out to establish a joint West Yorkshire UTMC service, upgrade existing traffic signals and infrastructure and the final form of this service design in accordance with Executive's resolution of 11 September 2018.

EQUALITY & DIVERSITY

The public sector equality duty in Section 149 of the Equality Act 2010 applies to the Council in the exercise of this function. Those functions will include the proposals referred to in this report.

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Portfolio:

Regeneration, Planning & Transport

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Overview & Scrutiny Area:

Regeneration & Environment

1. SUMMARY

- 1.1 The purpose of this report is to update Executive on the work carried out to establish a joint West Yorkshire UTMC service, upgrade existing traffic signals and infrastructure and the final form of this service design in accordance with Executive's resolution of 11 September 2018.

2. BACKGROUND

- 2.1 A report setting out the proposed arrangements for the establishment of a joint urban traffic signal control function for West Yorkshire was considered by Executive in September 2018 which recommended that further work to develop this proposal was undertaken and the final arrangements reported back following completion of this work. Since 2018 a working party comprising senior officers from all five West Yorkshire Councils, together with the Combined Authority, has been working on developing these proposals. Proposed arrangements, developed by Leeds City Council (as "Host Authority") for the establishment of a joint service were subsequently presented to Executive in March 2020.
- 2.2 The establishment of a joint urban traffic signal control function was one element of a wider programme of traffic signal investment promoted by the West Yorkshire Combined Authority under the West Yorkshire+ Transport Fund ("WY+TF"). The project comprised three separate delivery streams and whose delivery was overseen by a Programme Board comprising senior officers from each West Yorkshire district and the Combined Authority. The WY+TF project comprised:
- a) Element A – Upgrade of traffic signal assets (to be delivered by each district partner) through an allocation of additional capital investment funding;
 - b) Element B – Upgrade of the current UTC and UTMC computer systems and transition to cloud based solution to be procured by Kirklees MDC on behalf of the partners; and
 - c) Element C – Establishment of a joint service for the operation, management and co-ordination of the traffic signal installations across West Yorkshire to be led by Leeds City Council.

Work on each of these elements is now in the final stages of completion, with the Bradford work on Element A and B being completed. This report therefore provides Executive with an update on outputs of each element, as well as describing the final arrangements in relation to Element C.

Element 'A' – Traffic Signal Asset Upgrades

- 2.3 Work on upgrading the traffic signal assets comprising Bradford's proportion of the Element A programme has been completed with upgrades to 4 traffic signal junctions being completed to programme on Tong Street and Foxes Corner. Not only do these upgrades complement the work already being carried out on the traffic signal asset to modernise the Council's estate but, as with the case of the works to Foxes Corner they have allowed the introduction of pedestrian crossing facilities to several crossing points benefiting vulnerable users safely crossing this busy junction. Whilst the upgrade of signals along the Tong Street corridor will bring better co-ordination of signal

operations using the SCOOT¹ based microprocessor control to the whole Tong Street corridor leading to better traffic flows along this route, allowing for intelligent control to prioritise green light signals to the phase of the junction with the longest queues.

- 2.4 Investment in the Council's fibre-optic network saw the extension of this network to areas of Girdlington, Thornbury and Foxes Corner with over 1km of new network being added which has further extended the SCOOT network to these areas benefiting drivers through better co-ordination of signals. Bradford remain the only West Yorkshire authority to have fully completed this element of work.

Element 'B' – UTC/UTMC Computer Upgrade

- 2.5 Conversion of the Council's UTC servers to the joint West Yorkshire system was completed in May 2021 when the Council became the first authority to adopt the new cloud based solution. This upgrade will place the Council on a common system platform with other West Yorkshire authorities who have, and continue to, transition to the system and removes the need for separate servers to be operated by the Council. Whilst Bradford have successfully ported their systems and therefore completed the delivery of the UTC element of the project the wider progress completion is only 70% due to a number of technical difficulties being identified with the porting of Leeds' assets to the system.
- 2.6 Procurement of the UTMC system, which will control be responsible for wider network efficiency improvements supported the SCOOT infrastructure is currently awaiting award of the contract by Leeds City Council. Once awarded porting of control of the Council's SCOOT network onto the new system will allow wider optimisation of key transport corridor traffic over a city region basis improving traffic flows.
- 2.7 Ultimately, the benefit of the joint UTMC system for general road users will be the ability of optimisation of signal operations will not be based on a district-by-district approach but by a wider West Yorkshire design leading to improved efficiency of the network and improved journey times.

Element 'C' – Joint UTMC Service

- 2.8 Having designed an appropriate service staffing structure and prepared the first five-year financial plan for the funding of the service early in 2020 each partner Council was required to obtain approval of their respective Cabinet / Executive committees towards their respective contributions before the project could proceed to the next phase. As the first Council to seek agreement to the proposals Bradford approved an additional contribution for the Joint Service at the 24 March 2020 meeting of Executive. The implications of the financial for Bradford was a marginal increase of £30k per annum in our revenue costs. However, Kirklees and Wakefield Councils, who faced a significantly increased contribution were unable to secure agreement to the proposed financial model and therefore work on the implementation of the joint service ceased until an alternative approach could be identified.
- 2.9 The UTMC Programme Board considered other options for delivery of the benefits of the joint service which did not have similar financial implications for the partners

¹ Split Cycle Offset Optimisation Technique (SCOOT) is a real time adaptive control system for the co-ordination and control of traffic signals across an urban road network.

ultimately settling on the development of a Memorandum of Understanding (“MoU”) to set out an increased level of collaboration and co-operation between partners and namely deliver on the objectives of:

- a) Clearly demonstrating to the Department for Transport that the West Yorkshire authorities can work together;
- b) Provision of a consistent UTMC service across West Yorkshire;
- c) Provision of better management of congestion to unlock capacity over the highway network;
- d) Improved journey time reliability for highway travel;
- e) A more resilient network able to better manage unplanned events;
- f) Improvements to air quality; and
- g) Increased employment and promotion of economic growth by the completion of transport schemes across West Yorkshire regardless of administrative boundaries.

A Change Request setting out the scope of the MoU approach, its implications for the realisation of these benefits and impacts on programme delivery was submitted to the Combined Authority in summer 2021 and approved for implementation.

2.10 Whilst the MoU addresses, and will deliver many of the benefits of the proposed joint service the resilience of staff resources across West Yorkshire remains a concern. One of the initial objectives of the joint service was to provide a resilient, well-resourced UTMC service able to maximise the opportunities afforded by economies of scale and efficiency at a time of economic austerity. As of December 2017 there were 27 staff across the region employed by the four UTMC teams and several vacancies. The average age of staff employed is 50 years of age with 19 members of staff (70%) above the age of 48. Consequently, it was identified that staff shortages would be exacerbated in the near future as staff retire, therefore training and development of younger engineers into this field was seen as critical over the next decade. The Centre of Excellence arrangements, facilitated by Leeds City Council will ensure that we are able to offer high quality training for UTC staff in West Yorkshire and that the city region remains at the forefront of exploiting and adopting the latest changes in new and emerging traffic management technologies.

2.11 To address this issue within Bradford recruitment of newly qualified graduates

3. OTHER CONSIDERATIONS

3.1 The developed MoU sets many of the principles of the joint service on an equal footing across West Yorkshire ensuring that individual UTC teams work consistently and collaboratively in managing the traffic signal asset. At its core, the MoU facilitates the establishment of the West Yorkshire Urban Traffic Management Control Group which will be responsible for the design, operation and maintenance of all traffic signal assets across West Yorkshire, developing consistent standards and levels of service for the management of:

- a) More than 1,500 sets of traffic signals;
- b) Over 100 Variable Message Signs;
- c) 56 Monitored car parks controlling 35 parking guidance signs;
- d) Over 300 Bluetooth Journey time detectors;

- e) 30 Air Quality Monitors for localised monitoring (not part of Bradford Clean Air Zone monitoring network);
- f) Over 150 IP Cameras for Traffic Management purposes; and
- g) Cloud based UTC and UTMC network systems and fault monitoring system.

4. FINANCIAL & RESOURCE APPRAISAL

- 4.1 With the abandonment of the proposal to create a central UTMC function the additional revenue contributions previously identified are no longer required.

5. RISK MANAGEMENT & GOVERNANCE ISSUES

- 5.1 There are no specific risk management issues arising from this report.

6. LEGAL APPRAISAL

- 6.1 Through the MoU arrangements for the design, operation and maintenance of traffic signals the Council will remain as Highway Authority and Local Traffic Authority for its area and will retain all powers and responsibilities as set out in the Highways Act 1980, Road Traffic Regulation Act 1984 and Traffic Management Act 2004.

7. OTHER IMPLICATIONS

Sustainability Implications

- 7.1 The arrangements for closer co-ordination and co-operation between the respective UTC teams across West Yorkshire as set out in the MoU will enhance cross-boundary working bringing joint benefits of more strategic control of the highway network as well as enhance resilience to service pressures.

Greenhouse Gas Emissions

- 7.2 Delivery of the West Yorkshire UTMC project, specifically elements (a) and (b) will assist in reducing congestion on the highway network through more effective and efficient co-ordination and operation of traffic signals. By facilitating and controlling traffic movement air quality improvements will be realised not just within the Bradford district but throughout West Yorkshire.

Community Safety Implications

- 7.3 Adoption of a common West Yorkshire standard for traffic signal design and operation will enhance the usability of the traffic signal asset across West Yorkshire, providing a more consistent experience for motorists and pedestrians.

Human Rights Act

- 7.4 There are no Human Right Act implications associated with the contents of this report.

Trade Union

- 7.5 Consultations which were undertaken with the trade unions and staff in relation to the previous proposal for the establishment of a joint UTC service have concluded with Leeds City Council confirming the abandonment of the TUPE process.

Ward Implications

7.6 None arising from the contents of this report.

Implications for Children and Young People

7.7 None arising from the contents of this report.

Issues Arising from Privacy Impact Assessment

7.8 Issues previously identified in relation to the Privacy Impact Assessment in relation to the sharing of CCTV images from sites across West Yorkshire with a joint service control room for the purposes of monitoring traffic congestion (vehicle license plates being assessed as personal information under GDPR) have been mitigated and reduced by the revised approach.

8. NOT FOR PUBLICATION DOCUMENTS

8.1 None

9. OPTIONS

9.1 None.

10. RECOMMENDATIONS

10.1 That Executive note the work which has been done to date on developing proposals for the joint West Yorkshire UTMC service and note the issues which have prevented bringing this to fruition.

10.2 That Executive note and endorse the proposal to establish a Centre for Excellence dedicated to the training of young professionals in the field of traffic signal design and operation which complements the Council's own approach to encourage new graduates into this area of engineering.

10.3 That the Strategic Director, Place in consultation with the Portfolio Holder be delegated authority to enter into the Memorandum of Understanding on behalf of the Council.

11. APPENDICES

11.1 Appendix 1- Proposed Memorandum of Understanding

12. BACKGROUND PAPERS

12.1 Report of the Strategic Director to the meeting of Executive 24 March 2020, Arrangements for the establishment of a West Yorkshire Urban Traffic Management Control (West Yorkshire UTMC) Service.

12.2 Report of the Strategic Director to the meeting of Executive 11 September 2018, Arrangements for the establishment of a West Yorkshire Urban Traffic Management Control (West Yorkshire UTMC) Service.

12.3 Outline Business Case Submission – West Yorkshire Integrated Urban Traffic Management Control (UTMC) Project.

12.4 Report to the Directors of Development – WY+TF UTMC Project – Strategic Outline
Business Case dated 1 December 2017