

**Report of Joel Dodsworth, UTMC Manager**

**Report to Chief Officer Highways & Transportation**

**Date: 06 April 2021**

**Subject: Design & Cost Report for implementation of the 2021/22 UTMC Telecommunications Programme**

**Capital Scheme Number:**

Are specific electoral wards affected?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
If yes, name(s) of ward(s): Hunslet and Riverside, Little London and Woodhouse, Armley, Chapel Allerton, Beeston and Holbeck		
Has consultation been carried out?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Are there implications for equality and diversity and cohesion and integration?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Will the decision be open for call-in?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Does the report contain confidential or exempt information?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
If relevant, access to information procedure rule number: Appendix number:		

**Summary**

**1. Main issues**

- The Urban Traffic Management and Control (UTMC) section of the Highways & Transportation service monitors and controls traffic signals across the city through the Urban Traffic Control system and by using CCTV cameras. Connectivity to the traffic signal controllers and to CCTV cameras is vital to ensuring that the network can be managed in an efficient and safe manner.
- A key aspect of the Best Council Plan is Sustainable Infrastructure. The Best Council Plan states objectives of 'improving the resilience of the city's infrastructure' and 'strengthening 'Smart City' infrastructure'. The scheme proposed within this report contributes to achieving those objectives by upgrading sections of the UTMC telecommunications infrastructure to a more reliable, higher bandwidth private fibre network. It will deliver a more resilient, flexible and future proofed network whilst reducing overall revenue costs. Obsolete analogue CCTV cameras will be upgraded to digital CCTV cameras to be compatible with the fibre network.
- This report seeks approval to implement the 2021/22 UTMC Telecommunications Programme. This includes the preparation and delivery of a programme of works to

be funded from the Local Transport Plan Transport Policy Capital Programme during the 2021-22 financial year.

## **2. Best Council Plan Implications**

- The Best Council Plan outlines how Leeds City will achieve its ambition to become the Best City in the UK and Leeds City Council the best Local Authority.
- A key aspect of the Best Council Plan is Sustainable Infrastructure. The Best Council Plan states objectives of 'improving the resilience of the city's infrastructure' and 'strengthening 'Smart City' infrastructure'. The scheme proposed within this report contributes to achieving those objectives by upgrading our telecommunications infrastructure to a more reliable, higher bandwidth private fibre network. It will deliver a more resilient, flexible and future proofed network whilst reducing overall revenue costs. Obsolete analogue CCTV cameras will be upgraded to digital CCTV cameras to be compatible with the fibre network.

## **3. Resource Implications**

- The scheme proposals have no implications in terms of revenue resources as this scheme is fully funded from the UTMC LTP capital budget allocation. UTMC staff resources have been identified to undertake the design element of the scheme.

## **Recommendations**

The Chief Officer (Highways & Transportation) is requested to:

- a) Note the contents of this report; and
- b) Approve spending of £240,000 (inclusive of all works costs, fees and legal costs), from the Local Transport Plan Transport Policy Capital Programme for the procurement of services and installation of equipment to extend the UTMC private fibre communication network.

### **1. Purpose of this report**

- 1.1 To seek approval for the spending of sums from the Local Transport Plan Transport Policy Capital Programme for the procurement of services and installation of equipment through existing contracts to extend the UTMC private fibre communication network. This work will take into account the DIS-led Full-Fibre Network programme.

### **2. Background information**

- 2.1 UTMC currently utilise a number of leased circuits to provide connectivity to traffic signals and CCTV. The limitations of these circuits with regard to bandwidth has been identified in the current LPTIP works and installing a fibre service that will be solely owned by Leeds City Council will provide the capacity we require to install the latest technology in operating and controlling traffic signals.
- 2.2 In addition to leased circuits, UTMC also utilises a large amount of wireless technology. This equipment is low bandwidth, has limitations in terms of network

architecture and in many cases is reaching end of life. There have been recent examples where failing wireless telecoms equipment has resulted in network delays that undermine work undertaken to optimise signal timings.

- 2.3 The installation of a fibre network is on-going and this proposal builds on the significant investment through LPTIP and previous LTP programmes to extend the fibre network to more sites.
- 2.4 The expansion of the fibre network will secure further revenue savings on existing circuits and provide the city with capability to expand its own fibre network in future should it eventually form part of the wider DIS telecoms strategy.
- 2.5 The proposed network of ducting can also be made available to other council departments to provide a cheaper and stable solution to connectivity and meet the objectives of the Smart Cities proposals.
- 2.6 The ducting network could also provide the council with revenue if third party organisations required a ducting network for similar projects. This is now being pursued by DIS.
- 2.7 The DIS-led Leeds Full Fibre Network rollout is proposed to replace all existing UTMC analogue fibre circuits used for CCTV. However, the LFFN project scope does not include any other UTMC connectivity.

### **3. Main issues**

- 3.1 The scheme provides Leeds City Council with the opportunity to install additional private fibre network that will further reduce annual charges for telecoms circuits. The increased bandwidth will provide the capability to meet the demands of Smart Cities initiatives. The opportunity to install such a scheme has in part been made possible by the implementation of the LPTIP programme and other planned major schemes.
- 3.2 The major investment programmes have provided the opportunity to install large sections of fibre ducting infrastructure across the city that can be used to implement fibre optic communications. The proposed LTP programme will further link this ducting to other sections of the network to maximise fibre connectivity.
- 3.3 The scheme will provide the opportunity to replace obsolete analogue CCTV cameras to digital CCTV cameras which will be compatible with the fibre network.
- 3.4 The areas and corridors that will have the fibre infrastructure installed are described below:
  - Various areas of the City Centre that link regions of fibre infrastructure installed as part of LPTIP. This increases resilience and adds a significant number of sites to the network.
  - Claypit Lane - Woodhouse Lane to Sheepscar. Installation of fibre in ducting infrastructure installed as part of the City Connect 3 scheme.
  - Link between Stourton P&R and Thwaite Gate. Linking two sections of fibre infrastructure to increase bandwidth and reduce revenue costs.
  - A647 Armley Road, Stanningley Road. To extend the infrastructure installed through the LPTIP programme.
  - A61 Hunslet Distributor. To extend the infrastructure installed through the LPTIP programme.

- 3.5 It is recognised that the major investment programmes such as LPTIP, City Connect and the City Centre Package can evolve and, consequently, the locations listed above will be subject to change.
- 3.6 This proposal forms part of a continuing programme of work to improve and consolidate UTMC telecommunications infrastructure and will require further investment in future years to address the wider network.

## **4. Corporate considerations**

### **4.1 Consultation and engagement**

- 4.1.1 The Executive Board Member for Climate Change, Transport and Sustainable Development has been consulted regarding this proposal and it was positively received.

### **4.2 Equality and diversity / cohesion and integration**

- 4.2.1 A screening document has been prepared and an independent impact assessment is not required for the approvals requested.
- 4.2.2 Improved resilience of telecommunications will result in fewer periods of 'down time'. This will result in more consistent response times to faults with signal installations. Ultimately, this will benefit all road users.
- 4.2.3 Increased telecommunications bandwidth will provide the platform to install more sophisticated detection at each site. Newer detection technology enables the service to pedestrians and cyclists to be significantly improved which can have the effect of reducing community severance where pedestrian crossings provide links between communities.

### **4.3 Council policies and the Best Council Plan**

- 4.3.1 The implementation of extensions to the fibre communication network will contribute to the Best Council Plan by improving transport connections, increasing reliability and affordability. Upgrading the communications network will allow the introduction of new technology which will reduce delay, reduce emissions and improve air quality. The fibre network will strengthen the "Smart City" infrastructure and increase digital inclusion.

#### Climate Emergency

- 4.3.2 The implementation of a fibre communication network enables the use of more sophisticated network management techniques that will reduce vehicle stops and, consequently, emissions. New sensors, currently being installed in the City Centre, require much higher bandwidth telecoms due to the richer data gathered. However, this will enable traffic signal optimisation to take into account walking and cycling to a greater degree and subsequently increase the attractiveness of sustainable transport modes.

### **4.4 Resources, procurement and value for money**

- 4.4.1 **Scheme Design Estimate:** The estimated total cost for this work is £240,000, consisting of £230,000 works costs and £10,000 staff costs. It is proposed to procure the equipment through the contract 3548 Supply and Installation of traffic

signal equipment, contract 3647 West Yorkshire Traffic Signal Maintenance and the Highway Works Term Contract. The contracts above are due to be replaced with similar contracts within the timescales of this scheme. It is proposed that, as and when this happens, work will be procured through the appropriate replacement contracts.

**4.4.2 Capital Funding and Cash Flow:** The estimated total cost of £240,000 will be funded from the Transport Policy Capital Programme 2021 / 2022 (LTP Government grant funded), as part of the West Yorkshire Local Transport Plan Implementation Plan, received on a quarterly basis from the West Yorkshire Combined Authority.

Previous total Authority to Spend on this scheme	TOTAL £000's	TO MARCH 2019 £000's	FORECAST				
			2018/19 £000's	2019/20 £000's	2020/21 £000's	2021/22 £000's	2022 on £000's
LAND (1)	0.0						
CONSTRUCTION (3)	0.0						
FURN & EQPT (5)	0.0						
DESIGN FEES (6)	0.0						
OTHER COSTS (7)	0.0						
<b>TOTALS</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
Authority to Spend required for this Approval	TOTAL £000's	TO MARCH 2020 £000's	FORECAST				
			2018/19 £000's	2019/20 £000's	2020/21 £000's	2021/22 £000's	2022 on £000's
LAND (1)	0.0						
CONSTRUCTION (3)	230.0	0.0				230.0	
FURN & EQPT (5)	0.0						
DESIGN FEES (6)	10.0	0.0				10.0	
OTHER COSTS (7)	0.0						
<b>TOTALS</b>	<b>240.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>240.0</b>	<b>0.0</b>
Total overall Funding (As per latest Capital Programme)	TOTAL £000's	TO MARCH 2020 £000's	FORECAST				
			2018/19 £000's	2019/20 £000's	2020/21 £000's	2021/22 £000's	2022 on £000's
Government Grant TP/LTP	240.0	0.0	0.0	0.0	0.0	240.0	
Total Funding	240.0	0.0	0.0	0.0	0.0	240.0	0.0
<b>Balance / Shortfall =</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

Parent Scheme number: **TBC**

Title : UTMC Communications Capital Programme – LTP Grant Funded

## 4.5 Legal implications, access to information, and call-in

4.5.1 The scheme is not subject to Call In and there are no grounds for treating the contents of this report as confidential with the Council's Access to Information Rules.

## 4.6 Risk management

4.6.1 Failure to implement this scheme will result in the potential benefits from extending the fibre network not being realised. It will also prevent the work being undertaken that will provide the fibre network already installed with additional resilience. Consequently, the increased bandwidth and resilience would not be available to support the more sophisticated traffic signal control currently being developed and potential future revenue savings would not be realised.

## 5. Conclusions

5.1 Network control is a vital part of the UTMC function. The significant highways investment in Leeds has provided an opportunity to invest in a Leeds City Council

owned asset to provide connectivity for UTMC and to meet the requirements of Smart Cities objectives. The bandwidth of a fibre service will provide the UTMC section with the platform on which to install the latest technology at traffic signals and significantly improve the ability to monitor and control the network.

- 5.2 The rollout of a full fibre network, led by DIS, is expected to supersede the analogue CCTV fibre services. However, no other UTMC telecoms are included in the current LFFN scope and so UTMC will continue to work with DIS to ensure that the combination of LFFN and the private fibre network currently being installed by UTMC will maximise revenue savings and resilience.

## **6. Recommendations**

6.1 The Chief Officer (Highways and Transportation) is requested to:

- a) Note the contents of this report; and
- b) Approve spending of £240,000 (inclusive of all works costs, fees and legal costs), from the Local Transport Plan Transport Policy Capital Programme for the procurement of services and installation of equipment to extend the UTMC private fibre communication network.

## **7. Background documents<sup>1</sup>**

7.1 None

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<sup>1</sup> The background documents listed in this section are available to download from the council's website, unless they contain confidential or exempt information. The list of background documents does not include published works.

## Appendix 1

### Equality, Diversity, Cohesion and Integration Screening

As a public authority we need to ensure that all our strategies, policies, service and functions, both current and proposed have given proper consideration to equality, diversity, cohesion and integration.

A **screening** process can help judge relevance and provides a record of both the **process** and **decision**. Screening should be a short, sharp exercise that determines relevance for all new and revised strategies, policies, services and functions. Completed at the earliest opportunity it will help to determine:

- The relevance of proposals and decisions to equality, diversity, cohesion and integration.
- whether or not equality, diversity, cohesion and integration is being/has already been considered, and
- Whether or not it is necessary to carry out an impact assessment.

<b>Directorate: City Development</b>	<b>Service area: Highways and Transportation</b>
<b>Lead person: Joel Dodsworth</b>	<b>Contact number: 3788128</b>

<p><b>1. Title: Design &amp; Cost Report for implementation of the 2021/22 UTMC Telecommunications Programme</b></p>
<p>Is this a:</p> <p> <input type="checkbox"/> <b>Strategy / Policy</b> <input checked="" type="checkbox"/> <b>Service / Function</b> <input type="checkbox"/> <b>Other</b> </p> <p><b>If other, please specify</b></p>

<p><b>2. Please provide a brief description of what you are screening</b></p>
<p>The screening process relates to the installation of a fibre service network to control and monitor traffic signals.</p>

<p><b>3. Relevance to equality, diversity, cohesion and integration</b></p> <p>All the council's strategies/policies, services/functions affect service users, employees or the wider community – city wide or more local. These will also have a greater/lesser relevance to equality, diversity, cohesion and integration.</p> <p>The following questions will help you to identify how relevant your proposals are.</p>
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When considering these questions think about age, carers, disability, gender reassignment, race, religion or belief, sex, sexual orientation and any other relevant characteristics (for example socio-economic status, social class, income, unemployment, residential location or family background and education or skills levels).		
Questions	Yes	No
Is there an existing or likely differential impact for the different equality characteristics?	X	
Have there been or likely to be any public concerns about the policy or proposal?		X
Could the proposal affect how our services, commissioning or procurement activities are organised, provided, located and by whom?		X
Could the proposal affect our workforce or employment practices?		X
Does the proposal involve or will it have an impact on <ul style="list-style-type: none"> <li>• Eliminating unlawful discrimination, victimisation and harassment</li> <li>• Advancing equality of opportunity</li> <li>• Fostering good relations</li> </ul>		X

If you have answered **no** to the questions above please complete **sections 6 and 7**

If you have answered **yes** to any of the above and;

- Believe you have already considered the impact on equality, diversity; cohesion and integration within your proposal please go to **section 4**.
- Are not already considering the impact on equality, diversity, cohesion and integration within your proposal please go to **section 5**.

<b>4. Considering the impact on equality, diversity, cohesion and integration</b>
If you can demonstrate you have considered how your proposals impact on equality, diversity, cohesion and integration you have carried out an impact assessment.
Please provide specific details for all three areas below (use the prompts for guidance).
<ul style="list-style-type: none"> <li>• <b>How have you considered equality, diversity, cohesion and integration?</b> (<b>think about</b> the scope of the proposal, who is likely to be affected, equality related information, gaps in information and plans to address, consultation and engagement activities (taken place or planned) with those likely to be affected)</li> </ul> <p>Improved resilience of telecommunications will result in fewer periods of 'down time'. This will result in more consistent response times to faults with signal installations. Ultimately, this will benefit all road users.</p> <p>Increased bandwidth will provide the platform to install more sophisticated detection at each site. Newer detection technology enables the service to pedestrians and cyclists to be significantly improved which can have the effect of reducing community severance where pedestrian crossings provide links between communities.</p>



<ul style="list-style-type: none"> <li>• <b>Key findings</b>  <b>(think about</b> any potential positive and negative impact on different equality characteristics, potential to promote strong and positive relationships between groups, potential to bring groups/communities into increased contact with each other, perception that the proposal could benefit one group at the expense of another)</li> </ul> <p>All road users will benefit from improved monitoring and control of traffic signal installations.</p>
<ul style="list-style-type: none"> <li>• <b>Actions</b>  <b>(think about</b> how you will promote positive impact and remove/ reduce negative impact)</li> </ul>

<b>5. If you are <b>not</b> already considering the impact on equality, diversity, cohesion and integration you <b>will need to carry out an impact assessment.</b></b>	
Date to scope and plan your impact assessment:	N/A
Date to complete your impact assessment	N/A
Lead person for your impact assessment (Include name and job title)	N/A

<b>6. Governance, ownership and approval</b> Please state here who has approved the actions and outcomes of the screening		
<b>Name</b>	<b>Job title</b>	<b>Date</b>
Joel Dodsworth	UTMC Manager	22/03/2021

<b>7. Publishing</b> Though <b>all</b> key decisions are required to give due regard to equality the council <b>only</b> publishes those related to <b>Executive Board, Full Council, Key Delegated Decisions</b> or a <b>Significant Operational Decision</b> .  A copy of this equality screening should be attached as an appendix to the decision making report: <ul style="list-style-type: none"> <li>• Governance Services will publish those relating to Executive Board and Full Council.</li> <li>• The appropriate directorate will publish those relating to Delegated Decisions and Significant Operational Decisions.</li> <li>• A copy of all other equality screenings that are not to be published should be sent to <a href="mailto:equalityteam@leeds.gov.uk">equalityteam@leeds.gov.uk</a> for record.</li> </ul> Complete the appropriate section below with the date the report and attached screening was sent:	
For Executive Board or Full Council – sent to <b>Governance Services</b>	Date sent:
For Delegated Decisions or Significant Operational Decisions – sent to appropriate <b>Directorate</b>	Date sent:
All other decisions – sent to <a href="mailto:equalityteam@leeds.gov.uk">equalityteam@leeds.gov.uk</a>	Date sent:

