



## **Mass Rapid Transit**

### **Outline Scope for Strategic Outline Business Case**

#### **1. Purpose**

- 1.1 A Strategic Options Assessment of Mass Rapid Transit solutions for Cambridge and the surrounding travel to work areas has recently been concluded. This study established that there is a strong strategic case for a Mass Rapid Transit system and proposed a new and innovation solution, the Cambridgeshire Autonomous Metro (CAM).
- 1.2 The Cambridgeshire and Peterborough Combined Authority wish to commission further development of this CAM proposal. This document set outs the outline requirements for the next phase of work. However, due to the scale and complexity of the project it is proposed to develop these requirements with the selected consultant.

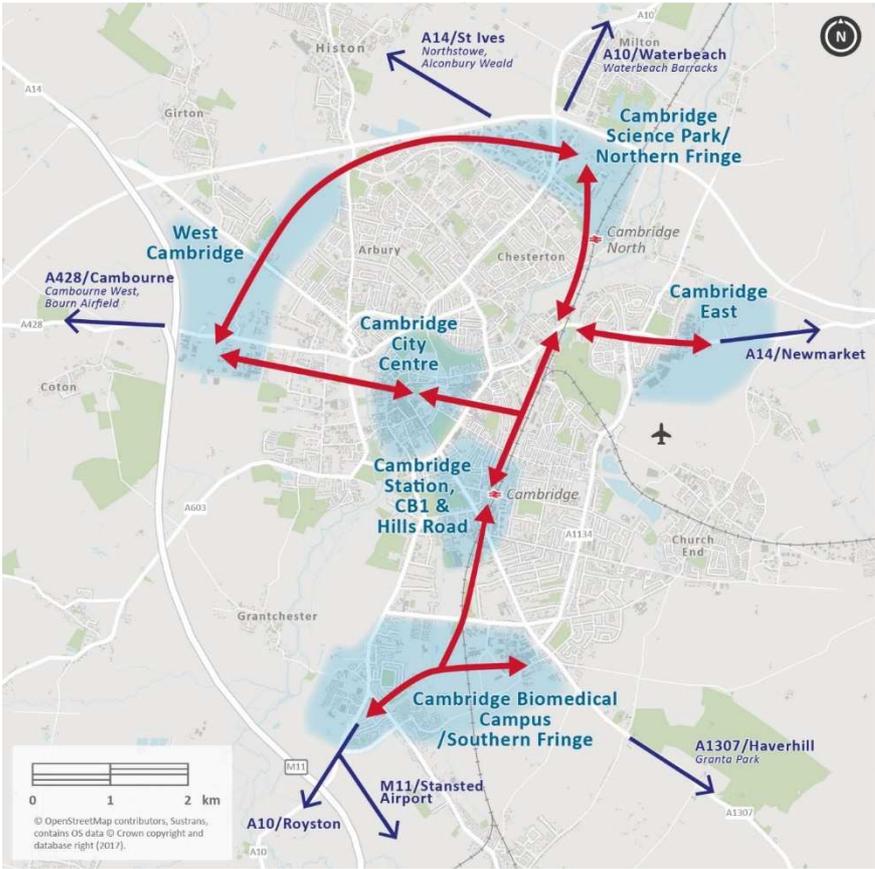
#### **2. Context**

- 2.1. Greater Cambridge and the surrounding economic and travel to work areas are of enormous economic significance both locally and nationally. Despite this success, there is growing evidence that the economy of this geographic area is close to overheating. Cambridge is now one of the least affordable cities in the UK, impacting on the ability of local businesses to attract staff and increasing congestion on our roads to accommodate a greater number of commuters.
- 2.2. The Combined Authority is committed to improving accessibility and connectivity to boost growth and prosperity whilst also addressing the congestion and delays that face residents and visitors to the area.
- 2.3. The Combined Authority's ambition is to deliver world-class public transport across Cambridgeshire and Peterborough, including city regions, future growth centres and into neighbouring counties. This vision will enable strategic sites for new housing and business to be unlocked.
- 2.4. As a first step in connecting Greater Cambridge and the wider surrounding economic area, enabling people and businesses to move rapidly across and into the city of Cambridge, a study was commissioned to investigate the feasibility of mass rapid transit for Cambridge and the surrounding travel to work areas.
- 2.5. This study concluded that there was a strong strategic case for a mass rapid system and identified a new and innovation solution for further development, the Cambridgeshire Autonomous Metro.
- 2.6. This solution presented an evolution of both Light Rail Transit and Bus Rapid Transit type solutions. It would operate using bespoke rubber-tyred articulated vehicles and could achieve vehicle frequencies of every five minutes during peak periods. Importantly, the future vehicle specification would deliver a high quality service and

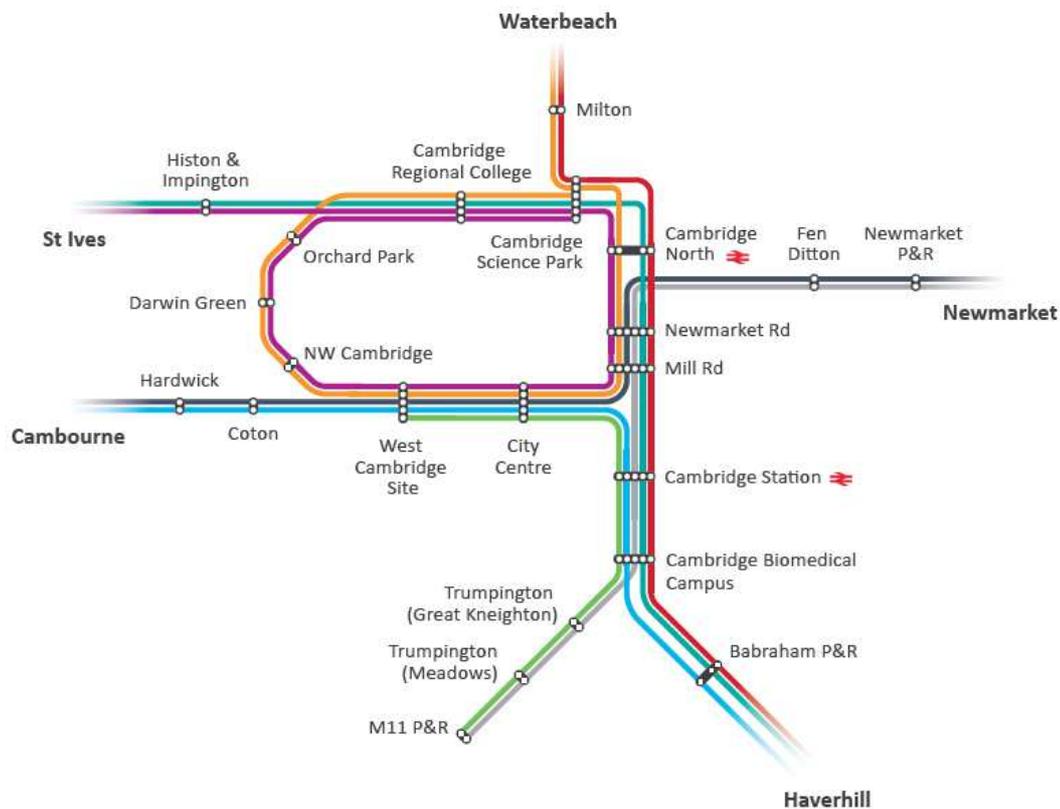
passenger experience akin to a tram with opportunity to transition to autonomous operation as such technology matures. A further advantage of the proposed solution was the flexibility of the vehicle to operate on both segregated and existing on-street infrastructure and allow incremental development of any future CAM network.



2.7. The study identified key development and employment sites as outlined below which would be serviced by CAM.



- 2.8. A 'concept' network was subsequently developed and is shown below. A critical component of this network was up to 6km of tunnels beneath the city centre. This tunnelling would provide transformational benefits by enabling faster and more reliable services across the city.



- 2.9. Further details of this study can be found within the Greater Cambridge Mass Transit Options Assessment Report (Steer Davies Gleave, January 2018)

### 3. Strategic Outline Business Case

- 3.1 The key output from the next phase of work will be a Strategic Outline Business Case (SOBC), prepared in line with HM Treasury's '5-Case' model, covering the strategic, economic, commercial, financial and management cases.
- 3.2 The SOBC will confirm the strategic context of the CAM proposal and reinforce the need for change and investment. It will provide further evaluation of the proposal, based on the further development of the CAM concept. The SOBC will identify the preferred option and lower cost alternative to take forward towards public consultation, Outline Business Case and detailed scheme development.
- 3.3 The approach will adopt an overall assessment framework that is fully consistent with DfT guidance. This will include the use of DfT's Early Stage Assessment Tool (EAST) to inform the option development, and use DfT's detailed webTAG guidance to inform the approach to the forecasting, economic appraisal and value for money assessment of the

preferred and lower cost options. DfT guidance will also be used to support the assessment of environmental, social and wider economic impacts. There will need to be ongoing dialogue with the DfT through the SOBC process.

- 3.4 The SOBC will, therefore, be compliant with WebTAG and with government guidance on major schemes, taking account of planned growth identified in Local Plans as well as considering high growth scenarios as described by the National Infrastructure Commission and as may be identified by the Combined Authority.
- 3.5 As part of this commission the Combined Authority will require the consultant to explore and consider a range of funding scenarios from traditional central government grants, to 'beneficiary pays' models and more innovative solutions such as land value capture. This may have implications for the development of the SOBC.
- 3.6 Supporting the SOBC will be a more detailed investigation and development of the CAM proposal including network coverage; infrastructure requirements, including tunnels; vehicles and technology; and the service proposition. Due to the complexity and scale of this project, this will require the consultant to draw upon specialist technical input across range of disciplines, including but not limited to:
  - Engineering (inc tunnelling)
  - Design
  - Technology (specifically around autonomous operation)
  - Cost
  - Modelling
  - Powers and Consents
  - Environment and Planning (inc heritage)
  - Business Case and Appraisal
  - Land and Property
  - Operations
  - Procurement
  - Legal
  - Statutory Undertakers
  - Stakeholders
  - Funding & finance
  - Risk management
- 3.7 A key output from the SOBC will be clearly articulated next steps and delivery timetables for the project. This should include indicative resource requirements and outline costs. In addition, the study should consider and advise on the potential future implementation phasing of the CAM network and evaluate the various approaches to achieving scheme consents, including Town Planning, Transport and Works Act Order or Development Consents Order.
- 3.8 The Combined Authority is also committed to an accelerated delivery of the CAM. It is currently working towards implementation of early services during 2021 with services running through the planned tunnels in 2025. It is recognised that this is ambitious and will require the consultant to challenge traditional, major scheme processes and delivery timescales. In doing so, the project team should seek to identify activities that can be brought forward and potentially delivered at risk.
- 3.9 Whilst the current study work has focused on a mass transit system for Cambridge and the surrounding areas, the Combined Authority wish to understand the viability of

extending this solution to the wider geography, particular Peterborough. It is assumed that this will be an addendum to the main report rather than an integral part of the SOBC.

#### **4. Deliverables & Timescales**

- 4.1 The key deliverable is the SOBC and a number of supporting appendices. All documents must be prepared to the highest standards.
- 4.2 It is anticipated that the commission will take six months to complete. An initial draft report should be submitted one month in advance of the agreed completion date to ensure sufficient time for client review and comments and to address any subsequent amendments.

#### **5. Governance Arrangements**

- 5.1 Cambridgeshire County Council will commission this work on behalf of the Combined Authority.
- 5.2 Progress meetings will be held monthly. This will include, as necessary, key stakeholders. The consultant will provide monthly updates on progress, programme, spend to date and anticipated outturn expenditure three working days in advance of all progress meetings.
- 5.3 Key risks will be identified at the start of the commission and reviewed regularly to ensure that any emerging risks can be suitably mitigated.
- 5.4 It is anticipated that the consultant will be required to present the findings of the study to the Combined Authority members.