



**GREATER
CAMBRIDGE
PARTNERSHIP**

Growing and sharing prosperity

Delivering our City Deal

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Rapid Mass Transit Strategic Options Appraisal

Interim report from consultants Steer Davies Gleave (presentation).

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Cambridge Rapid Mass Transit Options Appraisal

Study Overview

Greater Cambridge Partnership and
Cambridgeshire and Peterborough Combined Authority
November 2017

Tom Higbee, Michael May, Mark Hobden

Overview of Presentation

- Study context
- How will mass rapid transit benefit the City and the surrounding travel to work areas?
- Scope of our study
- Study approach - work undertaken to date and emerging findings
- Stakeholder engagement
- Programme / Deliverables

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Study Context

Economy

- The Cambridge Phenomenon – regional & national economic importance
- GCP & CPCA share ambitious plans for growth
- Devolution & City Deal provides funding and freedoms to shape future growth

Spatial planning & transport

- Accommodating jobs and housing
- Spatial development strategy – land use and transport
- Role of transport critical – capacity, accessibility, connectivity

Mass transit concept

- Consideration of Rapid, Mass Transit
- Planned and integrated within spatial and transport planning
- within Smart City concept

Mass transit SOBC

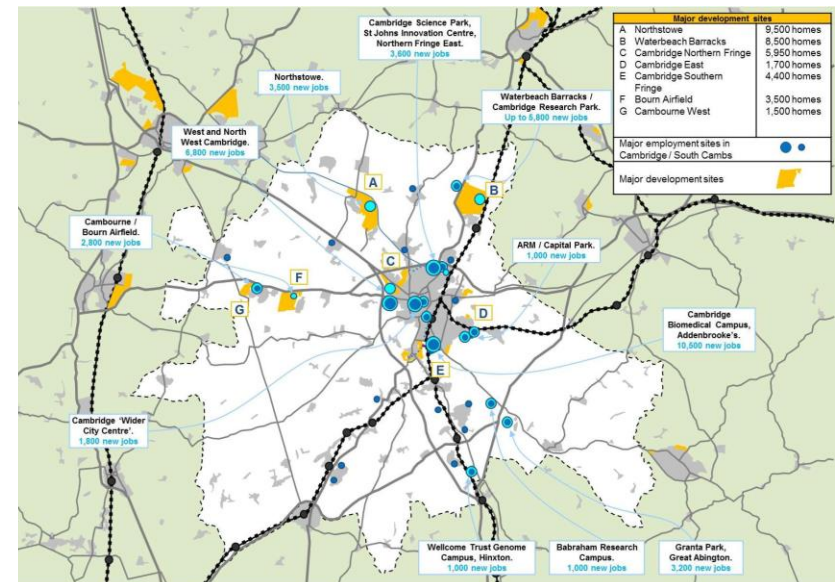
- Identify potential role of rapid transit – across key corridors
- Identify preferred option(s)
- Progress towards Strategic Outline Business Case (SOBC)

Key Challenges

- Existing challenges - within city
 - Heavily constrained city centre
 - Stations are a distance from centre
 - Major developments including Biomedical Campus, North West and West Cambridge, and CB1 etc. are not linked

Page 4 Impact of planned growth to 2031 across wider area

- Population & journeys +30% in wider area
- Time spent in congestion +100%
- Opportunities
 - Growth post 2031
 - Key strategic infrastructure e.g. East West Rail; Oxford, Milton Keynes, Cambridge Expressway



How will mass rapid transport benefit the City and the surrounding travel to work areas?

- Provide better linkages within and across the city where key 'desire lines' not well served
- Enhance overall capacity and accessibility between key corridors and destinations within and beyond the city
 - > redistribute/ extend 'Cambridge phenomenon' to wider area
- Provide additional capacity to support long-term growth, above and beyond projections, and potentially shape future spatial development

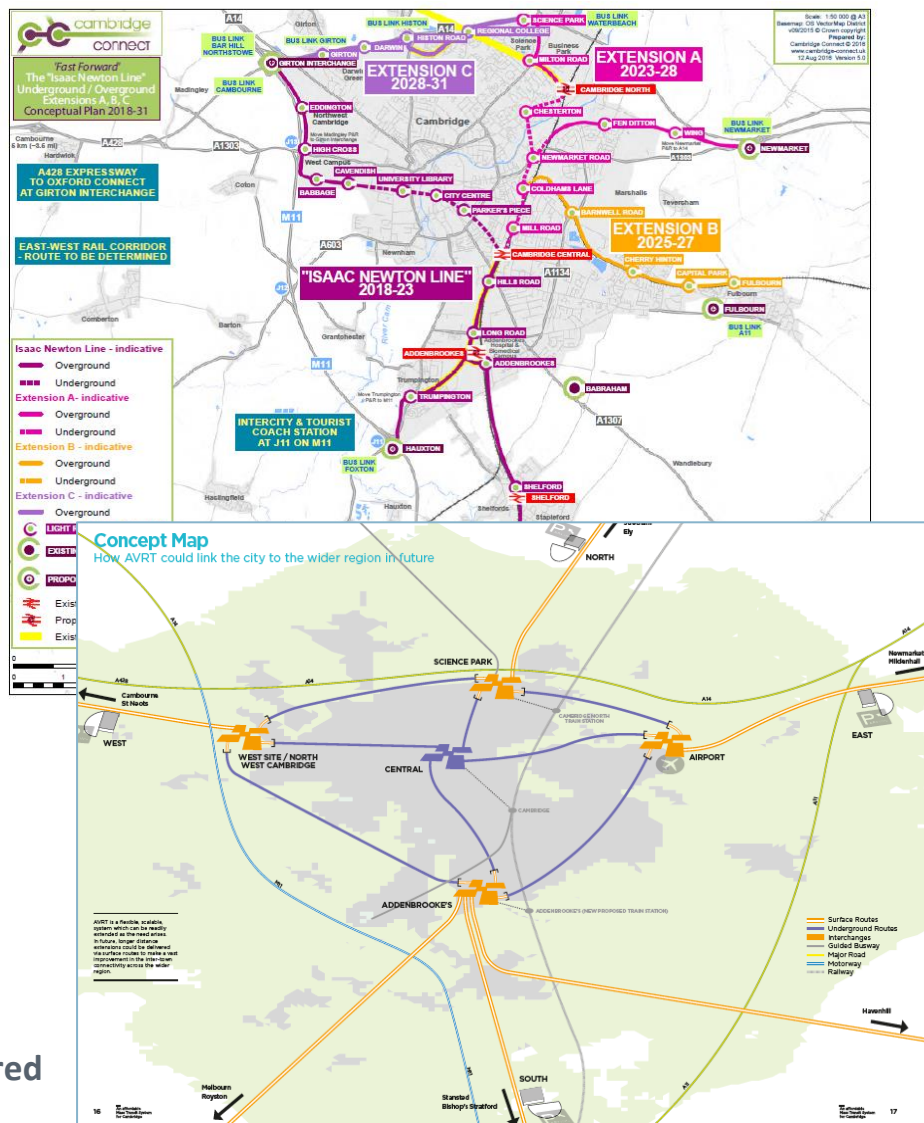
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Scope of our study

- **Objective and evidence-led**
 - Understanding of problem, opportunities, key demand drivers
- **Consideration of different modes / concepts**
 - LRT, AVRT, Guided Busway, Other
- **The potential for new / innovative technologies**
 - New modes, and 'existing'
- **Consideration of tunnelling**
 - Feasibility, suitability, acceptability
- **Strategic Assessment of Options**
 - Benefits, fit with objectives
 - Cost, deliverability, funding, value for money
 - Flexibility & extendability - futureproofing
 - Risk

High level study - further development work will be required



Stakeholder Engagement - Critical to overall study

Engagement

Stage 1 – Strategic Context, Issues, Option Identification

- Strategic context – Vision for Cambridge
- What are the problems Mass Transit should seek to address?
- Specific insight– local knowledge, technical expertise
- Thoughts on solutions

Stage 2 - Strategic Assessment

- Develop evidence base –building blocks for assessment
- Assessment of options and emerging recommendations

Stage 3 - Developing Recommendations

- Technical work provides **evidence-base** for stakeholders & decision makers
- Will highlight key **trade-offs and issues**
- Support **informed decision making**

Engagement

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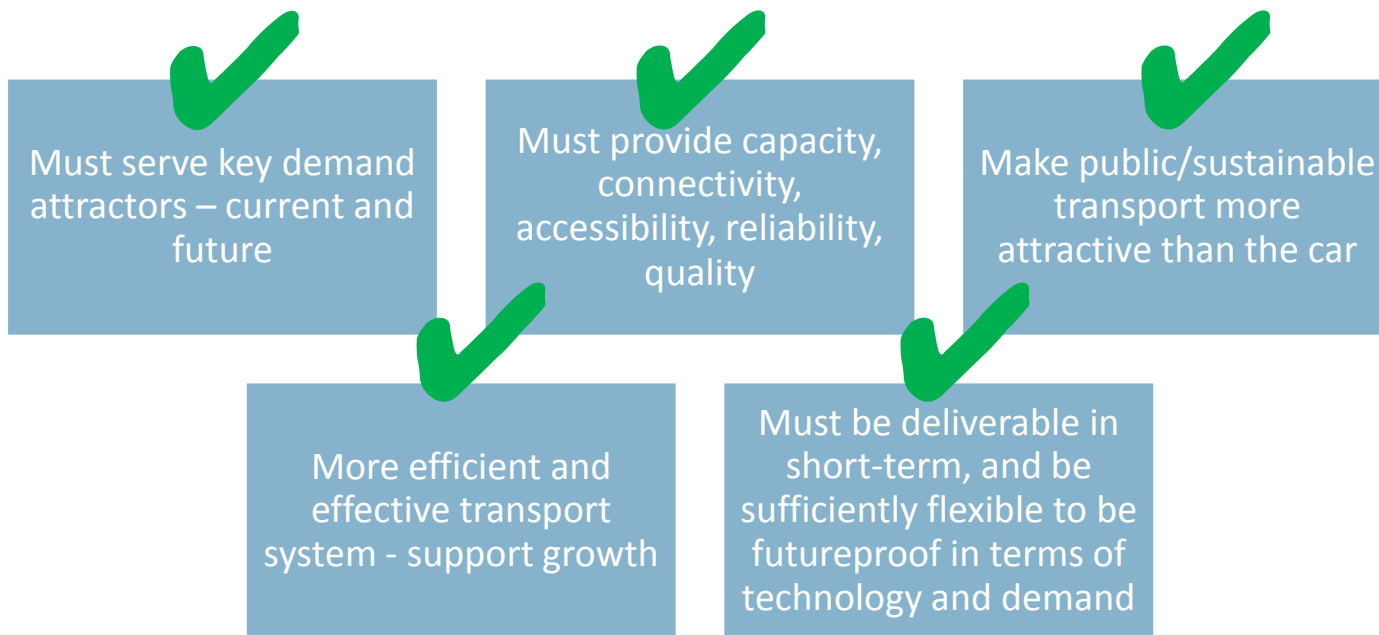
Stakeholder consultation - emerging themes

- Broad consensus around **ambition for growth** up to and beyond 2050
- **Mass transit viewed as key in accommodating that growth** in a sustainable manner
- **Need for further restraint of car within central area** - differing views on means by which this might be achieved
- View among many that **tunnelling could be part of the solution**, but acceptance that high-cost will need to be justified, and that there could be significant impacts (during construction and operation)
- **Mass transit only part of solution.** Needs to be integrated with other modes, and first and last mile critical to maximise full potential
- **Cambridge should be at the leading-edge of technology.** Applies to mass transit, other modes and wider ambition for SMART Cambridge
- **Must be fundable and affordable**

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Our emerging findings (1) – What should transit deliver?

- Focus on delivering key transport outputs that will support delivery of sustainable long-term growth and prosperity outcomes:



Our emerging findings (2) - Towards a Network Concept

- A simple transit network, connecting:
 - City Centre
 - Science Park
 - Biomedical Campus
 - Cambridge Station
 - North West / West Cambridge
 - Airport / Newmarket Rd

directly to each other, and the seven radial corridors identified by GCP / CPCA.

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- Aim to secure segregated alignment where possible – hard within constrained city centre
 - Journey time reliability more important than speed within the city
- Tunnelling is an option
 - minimise length / maximise number of services that could use it (best balance of benefits vs. costs)
- Make best use of existing and proposed infrastructure
- Deliver significant journey time savings, and supports development in the wider region
- **Can be delivered using any transit mode, including AVRT, LRT or guided bus**

Next steps

- Consideration of modal options:
 - Network-wide, on specific corridors
- Assessment of viability
 - Value for money, affordability, feasibility and acceptability
- Consider the case for tunnelling in city centre:
 - Indicative costs and benefits
 - High level issues
- Phasing:
 - Shorter and longer-term priorities

Enablers

Restraint / pricing

Strategic Park & Ride

Transit-oriented development

Complementary measures

First & last mile

Access to transit hubs

Ticketing & branding

Intelligent Mobility

Programme and Deliverables

- **Programme**

- Currently six weeks into the study
- Initial recommendations, emerging findings in early December 2017
- Final report published by end 2017

- **Deliverables**

- Report will consider all corridors (seven arterials) & all modes - strategic assessment
- Identify better performing Mass Transit options (modes, corridors)
- Basis for taking preferred option(s) to Strategic Outline Business Case - more detailed assessment

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Thank you

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