

Appendix A

SCOPING REPORT





Greater Cambridge Partnership

TRANSPORT ASSESSMENT SCOPING NOTE

Cambourne to Cambridge Scheme





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1 INTRODUCTION

- 1.1.1. WSP has been commissioned by the Greater Cambridge Partnership (GCP) to prepare a Transport Assessment (TA) for the Cambourne to Cambridge (C2C) Scheme. The TA will support a Transport and Works Act Order (TWAO) application for the C2C.
- 1.1.2. This Scoping Note sets out WSP's approach to the transport assessment process. It describes the principal transport matters that will be considered and the methodologies that will be employed in the TA.

2 SCHEME OVERVIEW

2.1 LOCATION

- 2.1.1. The C2C scheme involves the provision of a new Busway that will be located to the west of Cambridge. C2C will run from Cambourne at its western end to Grange Road in central Cambridge at its eastern end (see Figure 2-1 below).

Figure 2-1 - C2C scheme plan



2.2 SCHEME OBJECTIVES

The principal objectives of the C2C scheme are to provide a sustainable transport system that connects Cambourne and Cambridge and which,

- Supports the delivery of new housing and employment development,
- Improves connectivity to Cambridge from residential areas situated to the west of the city by sustainable modes of travel,
- Provides end to end journey time reliability (particularly compared with car journeys), and
- Relieves congestion along the A428/ A1303 corridor.

2.3 C2C SCHEME

The principal components of the C2C scheme are,

- A Busway which will run between Cambourne and Cambridge,
- Pedestrian and cycle routes to be provided as an integral part of the Busway,
- A Travel Hub which will include parking for 2,000 vehicles,
- New bridge crossing of the M11 Motorway,

- New frequent bus services which will run between Cambourne, the Travel Hub and Cambridge City Centre,
- Fully equipped bus stops,
- Pedestrian and cycle linkage with nearby communities, and
- A bus-gate, to be situated on St Neots Road and positioned between Cambridge Road and Long Road.

2.4 ALIGNMENT

2.4.1. The alignment of the C2C Busway is illustrated by Figure 2-1 above. Considering the scheme in a west to east direction, the main features to note are,

- a) The Busway will start in Cambourne and cross Broadway and runs along the northern side of the Bourn airfield site.
- b) From Bourn airfield, the Busway will cross St Neots Road to the west of the St Neots Road/ Highfields Road/ Bourn Airfield access road roundabout. The Busway/ St Neots Road crossing will be a bus-activated signal-controlled junction.
- c) From the St Neots Road crossing, the Busway will proceed off-road and run alongside the southern side of the A428 dual carriageway.
- d) As it approaches the grade-separated A428/ Scotland Road/ St Neots Road junction, the Busway will adjoin St Neots Road, to the west of the grade-separated junction's southern roundabout. It is anticipated that the new Busway/ St Neots Road junction will be signal controlled.
- e) The Busway will provide access to the proposed Travel Hub, which will be situated on Scotland Road on the northern side of the A428, via the grade separated A428/ Scotland Road/ St Neots Road junction.
- f) Continuing eastwards from the new Busway/ St Neots Road junction, the Busway will stay on St Neots Road and continue past Hardwick village and through the Cambridge Road junction. As the Busway approaches Long Road, it will change direction and continue off-road towards Cambridge.
- g) It is proposed that a bus-gate will be provided on St Neots Road, at a location to be established between the Cambridge Road and Long Road junctions.
- h) On leaving St Neots Road, the Busway will continue eastwards and cross Long Road and Cambridge Road (north of Coton village). The Long Road and Cambridge Road crossings will be bus-activated signal-controlled junctions.
- i) From Coton, the Busway will continue off-road across the M11 Motorway via a new overbridge. It will then enter the University of Cambridge's West Cambridge site at Charles Babbage Road. The Busway will follow Charles Babbage Road across the University's site and, from there, it will weave its way past the University's rugby ground and emerge onto Grange Road. It is anticipated that the new Grange Road junction will be traffic signal controlled.

3 TRANSPORT ASSESSMENT

3.1 TWAO APPLICATION

- 3.1.1. As mentioned above, a Transport Assessment (TA) is required as part of the Transport and Works Act Order application for the C2C scheme.

3.2 PRINCIPAL TRANSPORT MATTERS

- 3.2.1. The principal matters to be considered by the TA include,

Guidance for Transport Assessment

- 3.2.2. The Transport Assessment will generally be prepared in accordance with guidance issued by Cambridgeshire County Council and National Highways.

Study Area

- 3.2.3. The Transport Assessment will consider transport matters in a study area which includes,

- The A428 between A428/ A1198 Caxton Gibbet roundabout and A428/ A1303 Madingley Mulch roundabout,
- The A1303 Madingley Road between Madingley Mulch roundabout and Madingley Road/ Grange Road junction,
- St Neots Road – and adjoining side roads – between Broadway and Madingley Mulch roundabout, and
- Grange Road, Cambridge.

- 3.2.4. Nearby rural communities including Elsworth, Knapwell, Dry Drayton, Highfields Caldecote, Hardwick and Coton will be included in the transport assessment process.

Scope

- 3.2.5. The TA will consider the impact of constructing C2C. It will consider numbers and types of construction vehicles and their likely routes to the C2C construction site(s). It will also consider the impact of any temporary road closures or diversion routes required by the construction process.

- 3.2.6. The TA will assess the operational impact of the C2C scheme within the study area described above.

- 3.2.7. The TA will identify any measures required to mitigate the impact of the C2C scheme during the construction and operational stages.

Committed Development

- 3.2.8. The Transport Assessment will consider all local plan growth, including Cambourne West, Bourn Airfield and West Cambridge. Local plan growth will be treated as committed development and will be included in the TA's assessment year baseline Do Minimum traffic figures.

- 3.2.9. The full Bourn Airfield development has been included in the assessment year Do Minimum baseline figures. However, it is acknowledged that only part of the Bourn Airfield site can be developed prior to the delivery of the C2C scheme.

- 3.2.10. Comparison between the Do Minimum (ie local plan growth) and the Do Something (ie local plan growth + C2C scheme) modelling results will highlight the transport impact arising from the C2C scheme.

Baseline Transport Conditions

- 3.2.11. The Transport Assessment will include a description of current travel conditions within the study area. The main items that will be considered are,
- Usage of the Madingley Road Park and Ride site,
 - Walking, Cycling and Equestrian routes and usage,
 - Public Transport services, frequencies, journey times and patronage, and
 - Local Highway conditions, including vehicle journey times and queuing.
- 3.2.12. It is uncertain whether traffic conditions on the local road network have returned to pre-covid levels. For that reason, a programme of traffic surveys on the local road network will not be carried out for the C2C scheme. Baseline traffic conditions will be established from pre-covid traffic information already in the public domain. Sources of such information will include transport assessments produced in support of nearby development schemes and the traffic analysis undertaken as part of the design of National Highways' "A428 Black Cat to Caxton Gibbet" improvement scheme.

Transport Modelling

- 3.2.13. The Transport Assessment will employ the following transport models,

E-series CSRM

The following E-Series CSRM runs will be used to determine the impact of the C2C scheme,

- Base year 2015
 - 2036 Do Minimum – C2C Core (includes Local Plan "Plus" and Cambourne West, Bourn Airfield and West Cambridge) but excludes C2C scheme
 - 2036 Do Something – C2C Core (includes Local Plan "Plus" and Cambourne West, Bourn Airfield and West Cambridge) and includes C2C scheme
- 3.2.14. F-Series CSRM runs, which model the effects of the Connecting Cambridge programme, are not yet available and hence the TA will rely on the results of the E-Series modelling.
- 3.2.15. As mentioned above, a comparison between the 2036 Do Minimum and Do Something CSRM output will highlight the transport impact arising from the C2C scheme.

VISSIM

- 3.2.16. A 2036 VISSIM micro-simulation model has been developed for the grade separated A428/ Scotland Road/ St Neots Road junction and the roads immediately adjacent to this junction. The model incorporates the access junction for the proposed Travel Hub at Scotland Road.
- 3.2.17. The VISSIM model will be used to examine the behaviour of traffic (including Park and Ride bus services) using this junction, particularly traffic travelling to and from the Travel Hub in the morning and evening peak periods.
- 3.2.18. The VISSIM model will be validated against baseline traffic flow information collected from the sources described in paragraph 3.2.12 above.

Linsig

- 3.2.19. Linsig models will be developed to assist with the design of the new Busway/ St Neots Road junction and the new Busway/ Grange Road junction. The junctions will be designed using the 2036 Do Something traffic flows extracted from the CSRM output.

CUBE

- 3.2.20. CUBE public transport modelling will be undertaken to inform the provision of the new bus services which will be provided as part of the C2C scheme.

Travel Plan

- 3.2.21. It is not proposed to provide a Travel Plan as part of the TWAO application.

3.3 TRANSPORT ASSESSMENT

- 3.3.1. The TA will provide the following information,

- **Policy Review:** this will provide a summary of all transport and planning policy at a national and local level that relate to the proposed C2C scheme and the surrounding transport network.
- **Baseline Transport Conditions:** this will provide an audit of the existing transport conditions for each of the scheme elements, including facilities for cyclists, pedestrians and equestrians, public transport users, Madingley Road Park and Ride, highway conditions, and baseline traffic flow information.
- **Collision Data Analysis:** this will provide details of collision data for the most recently available 5-year period available from Cambridgeshire County Council.
- **Development proposals:** this will provide details of the proposed C2C scheme, including details of the Busway, Travel Hub, bus services and active travel accessibility arrangements.
- **Construction Phasing:** this will provide details of construction traffic and temporary traffic management for each stage of the C2C's construction.
- **Multi Modal Travel Demand:** this will provide an assessment of the C2C scheme's travel demand by modes of transport including vehicles, public transport, cycling, walking and equestrians. It will assess multimodal travel demand to and from the proposed Travel Hub and consider how the Travel Hub interacts with the Madingley Road Park and Ride site.
- **Strategic Modelling:** this section will provide a comparison of the 2036 Do Minimum and Do Something scenarios and indicate the impact of the C2C scheme on the wider transport network.
- **Local Transport Modelling:** this will provide an assessment of the impact of the C2C scheme on the VISSIM modelling for the grade separated A428/ Scotland Road/ St Neots Road junction. Linsig modelling results will be provided to support the design of the new Busway/ St Neots Road junction and the new Busway/ Grange Road junction.
- **Public Transport Assessment:** this section will describe existing public transport services and the proposed services arrangements, supported by CUBE modelling, which will be introduced as part of the C2C scheme to serve development at Cambourne, Bourn Airfield and the Travel Hub.
- **Impact Assessment and Mitigation:** this section will summarise the impacts of the C2C scheme on the surrounding transport networks and assess the requirement for mitigation measures.

4 NEXT STEPS

- 4.1.1. This Scoping Note will be issued to Cambridgeshire County Council and National Highways as the highway authorities for the local road network and the Strategic Road Network respectively.
- 4.1.2. Both highway authorities will be invited to provide comments regarding the proposed scope of the Transport Assessment as described within the Scoping Note.
- 4.1.3. Once feedback has been received, WSP will proceed with the preparation of the Transport Assessment. The TA will incorporate the matters described within this Scoping Note and any points raised by Cambridgeshire County Council and National Highways.
- 4.1.4. The Scoping Note and feedback received will be included as appendices to the Transport Assessment and included as part of the TWAO application.