

## **Railfuture Oxford to Cambridge (East West Rail) campaign**

### **Briefing note on the East West Rail route Central Section conditional outputs statement and benefits to Cambridgeshire**

## **Central Section Conditional Outputs Statement**

The East West Rail Consortium's 'Conditional Outputs Statement' is a fascinating exercise in statistics that makes a strong case for new railways across the Oxford to Cambridge arc.

<http://www.eastwestrail.org.uk/news/new-study-supports-economic-case-investment-east-west-rail-central-section-rail-link>

The study examines the potential for linking 25 existing stations plus one new one – Wixams near Bedford. However, the analysis is made in terms of the 650 (26 x 25) possible journeys between the stations; no new lines or stations are described explicitly. All the journeys are ranked according to economic criteria. Media reports focused on the high ranking of Bedford to Cambridge, but Cambridge to Northampton, and Luton to Stevenage also come out strongly in the numbers.

The most important pairings are shown on diagrams in the concluding chapter of the study. Railfuture has mapped these diagrams on to maps of the region, and aligned the links to existing lines and possible future routes. You can see these maps on the following pages.

While developing these maps, Railfuture noticed some anomalies about study results:

How were the 26 stations chosen? Huntingdon, Royston and Corby were left out; yet nearby St Neots, Letchworth, and Northampton were included, as well as somewhat off the arc Peterborough. Also, no planned or potential stations were included that could serve new growth areas, except Wixams near Bedford. If they were, we would expect to see Cambridge Science Park and Alconbury Weald on the list; and new stations that could be served by EWR itself such as Winslow and Cambourne.

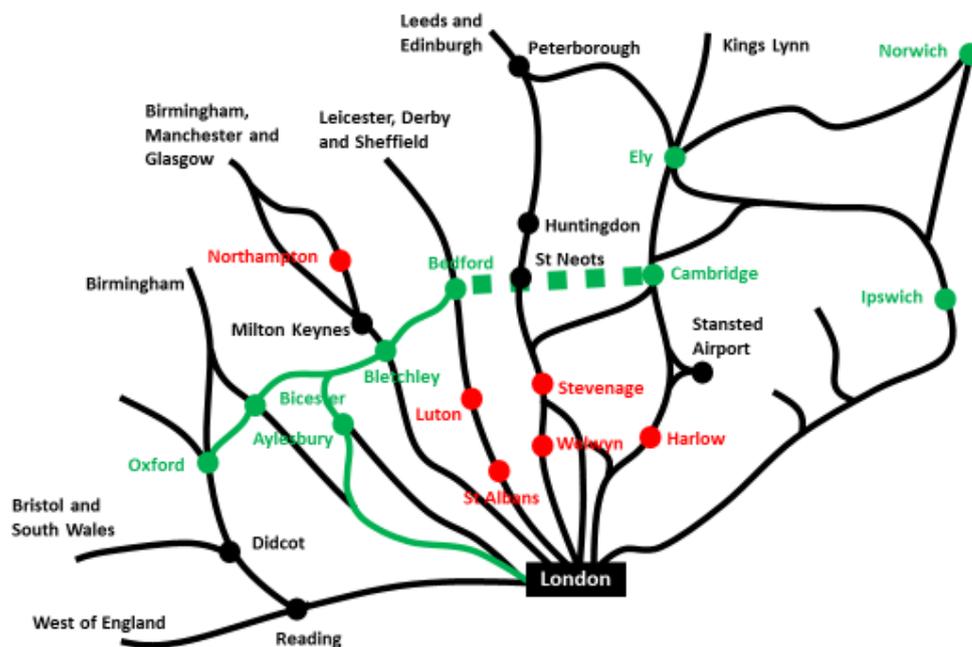
Now as the study worked through the station pairs – the possible journeys – some places were promoted over others to get to the final tables and diagrams. St Neots and stations to the east of Cambridge were eliminated, but the disappearance of Milton Keynes from the final tables and diagrams is the most surprising. MK is the largest city of the region and a commercial and transport hub. Railfuture has included a fast line from Bedford to Milton Keynes in its Central Section campaign for many years.

The study takes growth areas into account. But only new houses close to existing stations are considered. So, of the 8000 new houses planned along the A428 between Cambridge and St Neots up to 2031, only the 429 closest to St Neots station seem to be counted. So would a new cross country railway have no new stations for new communities?

The study will now be developed by EWRC and Network Rail to arrive at some route options. Railfuture's immediate recommendations are:

- New links for the 'southern arc' such as Luton to Stevenage and St Albans to Welwyn should be developed as a separate project from the project to link the 'northern arc' such as Cambridge to Bedford.
- The best way of joining a station on one main line from London to one on a different main line, e.g. St Albans to Cambridge, would be to divert and / or extend existing services rather than widening the existing mainlines which would be very expensive. New signalling systems and longer trains will make the best use of new lines.

Map 1: East West Rail line, with the Central Section marked as a straight line from Bedford to St Neots.



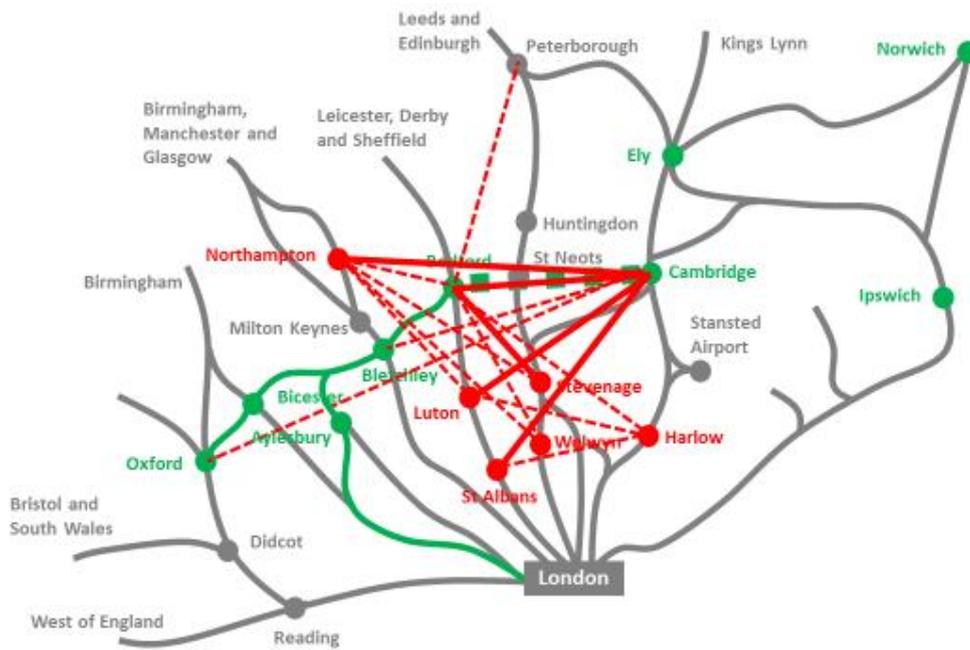
Map 2: Overlaid with the journey pairs identified as Very High Priority shown as straight lines.



Map 3: Redrawn version of map 2 showing individual journey pairs following existing lines and EWRL.



Map 4: Overlaid with the journey pairs identified as Very High Priority as solid lines and High Priority as dotted lines for journeys over 30 mins.



Map 5: Redrawn version of map 4 showing individual journey pairs following existing lines and EWRL.



Map 6: Route map showing a set of services over EWRL which would cover the journey pairs identified as Very High Priority and High Priority with journey times of 30 mins and greater, but excluding routes from Harlow. A second scheme in the south would be required to fulfil the shorter journey pairs in the report linking Luton and St Albans, with Stevenage and Welwyn, and also with Harlow.

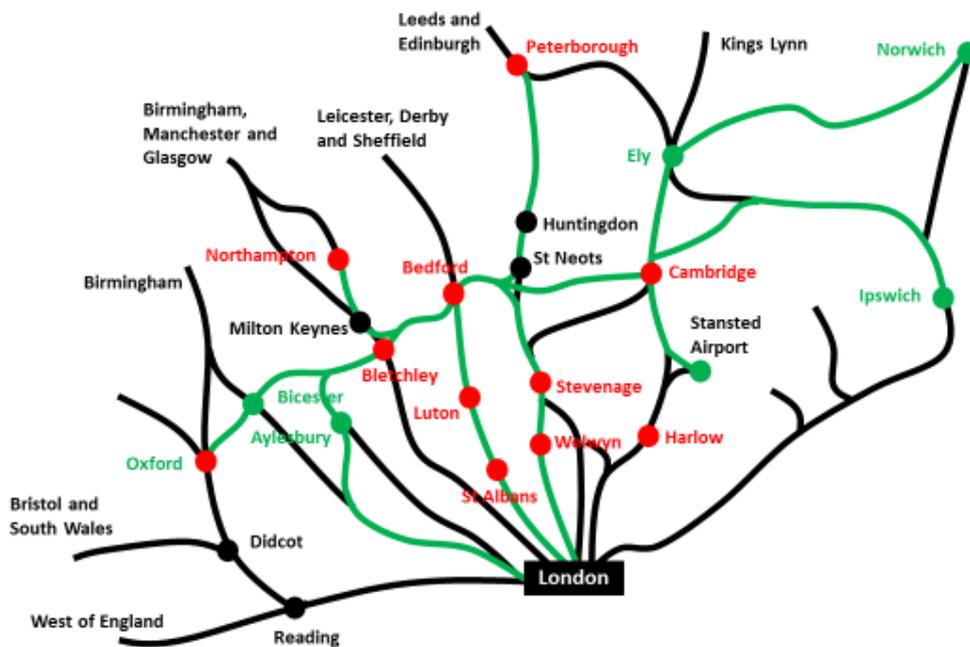


Map 7: East West Rail Line diagram based on the route map shown in Map 6 showing the East West rail network in green, including the eastern section with possible destinations of Norwich, Ipswich and Stansted Airport.

The map shows the junctions needed to support the service at Milton Keynes to allow services from Northampton to join EWRL heading East, at Bedford allowing services from Luton to join EWRL heading East, and near St Neots allowing services from Welwyn and Stevenage to join EWRL heading West, and similarly from Peterborough in the North. A direct service from Northampton to Luton is also identified although this may be more practically provided by changing at Bedford.

An assessment of how East West rail would be used to serve Cambridgeshire could result in the requirement for an additional chord at St Neots to allow trains from Peterborough to join EWRL heading towards Cambridge. Freight may also add additional requirements to the network.

<http://www.railfuture.org.uk/East+Anglia+East+West+Rail+Briefing+for+Cambridgeshire>



Map 8: Services from Cambridge in blue (first of two network maps) with extensions into East Anglia shown in green.



Map 9: Services running off the ECML (second of two network maps)



Map 10: Showing all the very high priority (solid lines) and high priority (dashed lines) within the southern cluster of stations. This indicates that there would be merit in a study for a second rail link for this area.



## Benefits to Cambridgeshire for the Central Section from Bedford to Cambridge

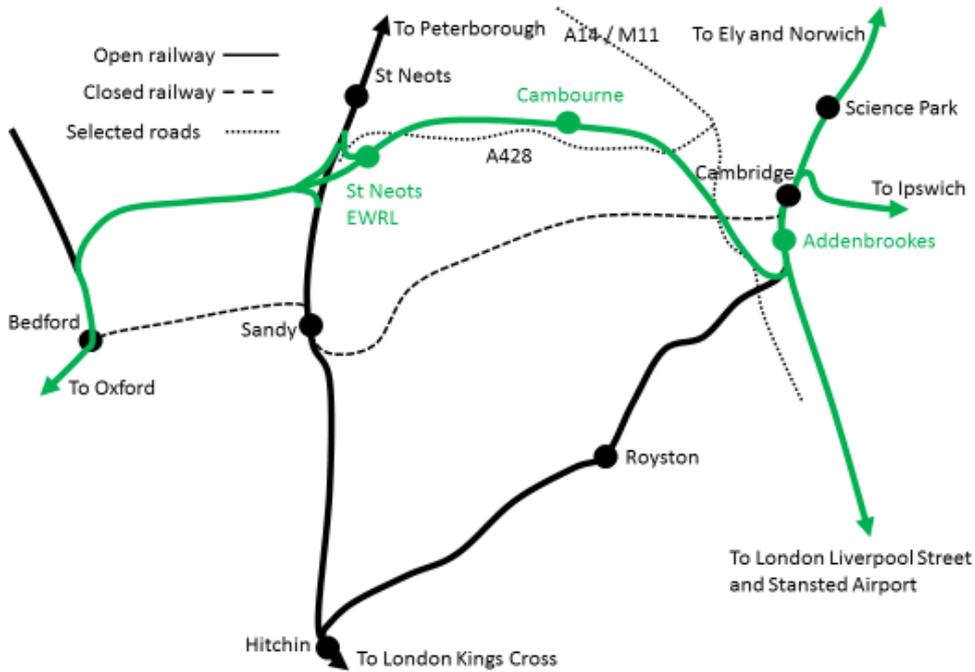
The following section provides a more detailed and up to date follow up to Railfuture East Anglia's "Briefing note on route options for the Central Section from Bedford to Cambridge" published in September 2013 which proposed a number of routes, looking at how the link could be best used to benefit Cambridgeshire.

There are indications that a route will be preferred which passed through the main Bedford Midland station, avoids a reversal there, then continues through Cambridgeshire along a new alignment broadly following the A428. It is assumed in this document such a route will be adopted, although an alignment heading more directly due east from Bedford has often been suggested is still a possible outcome. The broad suggestions about benefits for Cambridgeshire would apply to any central section route which follows the A428.

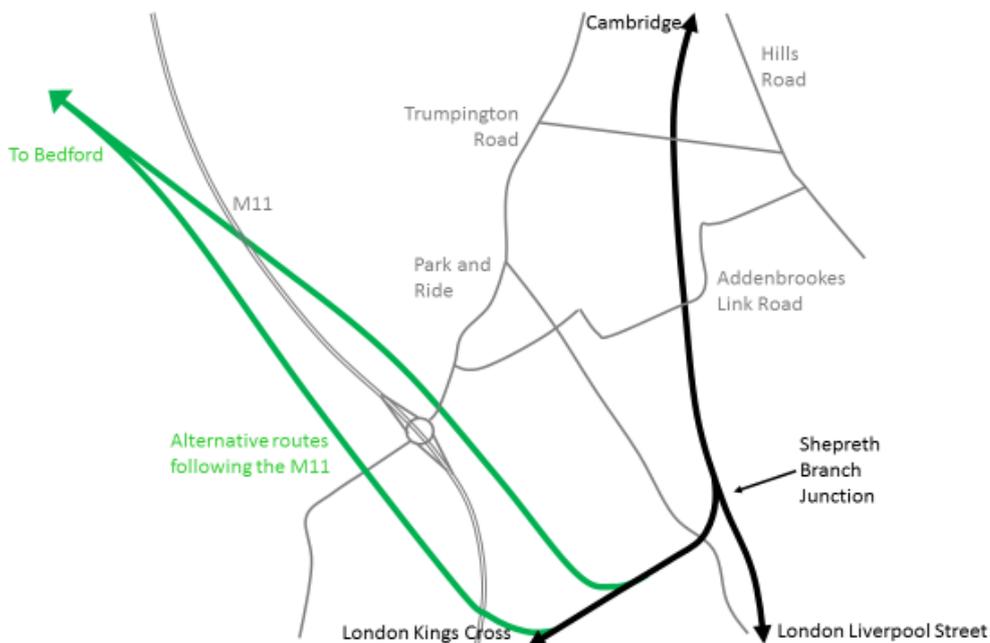
***Note that the maps to illustrate the options are only indicative and do not show or imply the exact route which a particular option will take, but instead show broad route corridors.***

## Route

The route uses the existing Midland Main Line through Bedford, diverging north of Bedford to head on an alignment south of St Neots then following the A428 corridor passing Cambourne and then sweeping south to follow the M11 to a junction with the Great Northern just west of Shepreth Branch Junction and from there North into Cambridge. Stations could be provided on the route south of St Neots (marked St Neots EWRL on the map), just North of Cambourne, and also serving a new station at Addenbrookes.



Map 11: East West Rail central section route option along the A428 corridor



Map 11: Accessing the A428 Corridor in the Cambridge area

## Benefits

**The Bedford to Cambridge link shown in the following map would allow the following passenger and freight services to be developed:**

**Cambridge to Bedford and Oxford**, the distance between Cambridge and Bedford being just under 35 miles. Fast limited stop express trains could run twice an hour to Oxford via Bedford and Milton Keynes–Bletchley.

**Cambridge, St.Neots, Huntingdon, Alconbury, Peterborough**. This route would be about 45 miles long, about the same as the Cambridge – Peterborough route via Ely/March. (This based on the assumption that the ECML is 4 tracked in its entirety between Huntingdon and Peterborough.

It would, however, be a faster route enabling a Cambridge to Peterborough timing of about 35 - 40 minutes, providing a high **volume/velocity passenger train route** from Peterborough, Alconbury , Huntingdon and St. Neots to Cambridge and beyond.

**Cambridge – Cambourne Park & Ride – London** fast passenger services could be developed (as could Bedford to via Stevenage services if a south facing junction were to be installed at Sandy.)

**A Cambourne park and ride station** would significantly improve public transport provision to the west of Cambridge, including the new Cambridge University developments to the west of the city.

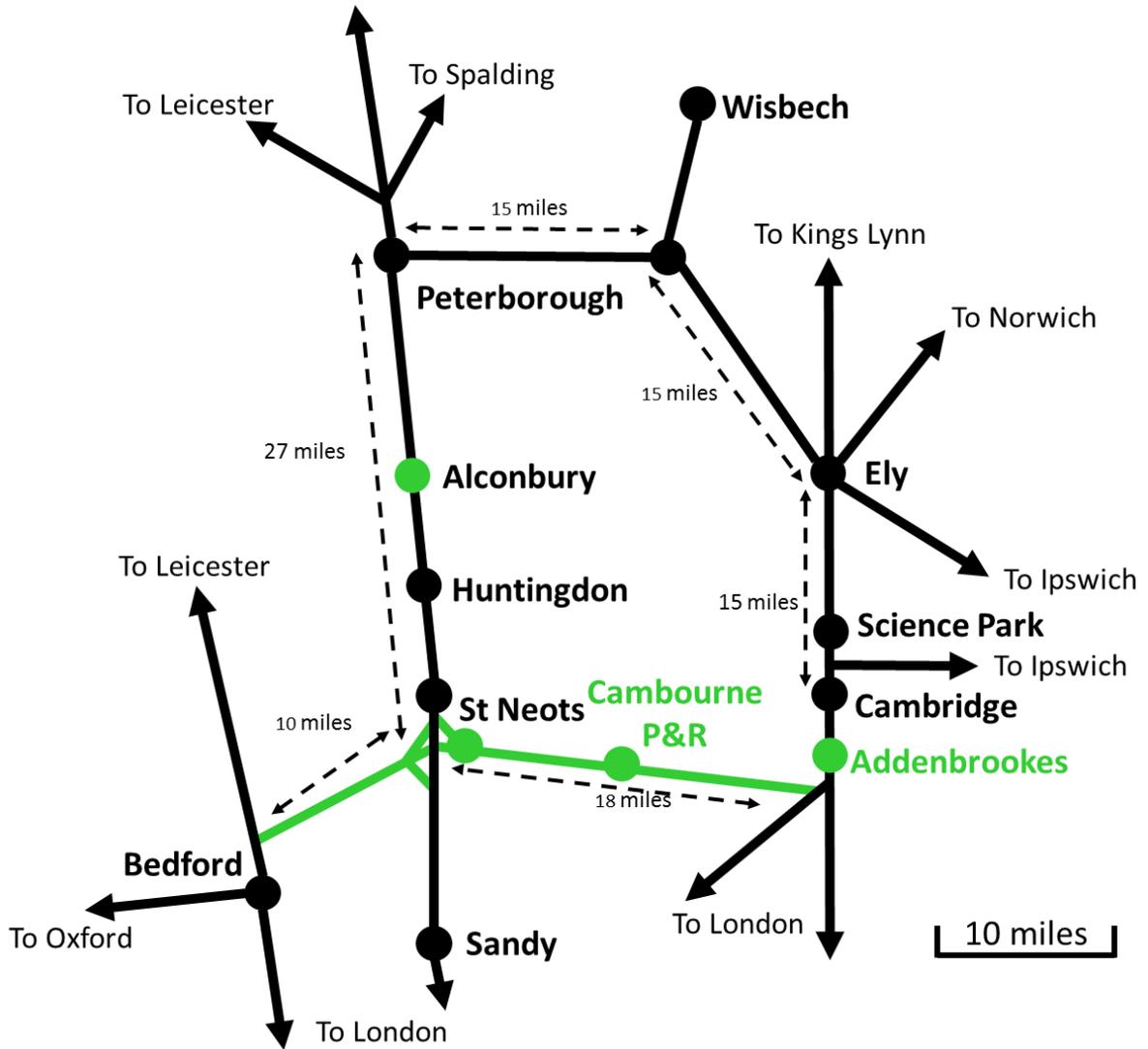
**It would also provide additional freight train paths from Felixstowe etc. to Peterborough, relieving the Ely to Peterborough route and via ECML to Sandy and Bedford, providing easier access to Daventry freight terminals, in particular.**

**It would provide the following Additional Benefits:**

The A14 trunk road would have relief in that passenger trains via Alconbury to Cambridge could be available.

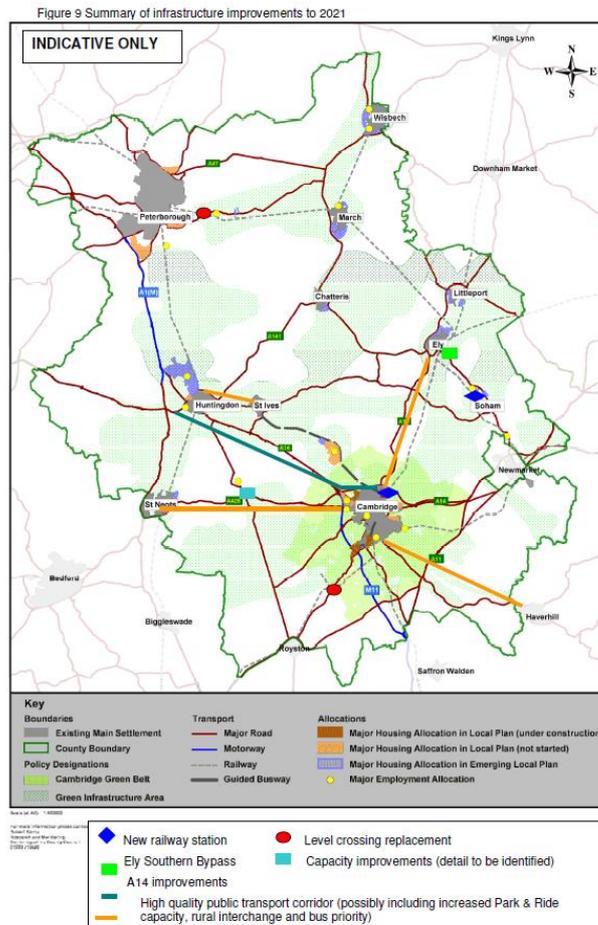
Additional freight trains could be provided to take more railfreight traffic from Felixstowe docks.

In an age when the rail network is increasingly busy, new routes to provide easier access to the network will be invaluable as will be the possibility of more network flexibility in times of planned and unplanned disruption.



Map 12: Diagrammatic Map showing rail network in Cambridgeshire with EWRL linking Bedford and Cambridge

The Cambridgeshire County Council Long Term Transport Strategy identifies both East West Rail and the need for a "High quality public transport corridor (possibly including increased park and ride capacity, rural interchange, guided bus, bus priority or rail)" following the A428. **Option B1** would not only provide the East West Rail Link, but would also provide high quality public transport for the A428 corridor.



Map 13: Cambridgeshire Council Council's indicative map of aspirations for transport improvements

## Railfuture East Anglia

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