

THE CAMBRIDGESHIRE CORRIDOR STUDY

To: Economy and Environment

Meeting Date: 23 May 2019

From: Graham Hughes: Executive Director, Place and Economy

Electoral division(s): Abbey, Cherry Hinton, Fulbourn, Petersfield, Romsey, Sawston and Shelford, Trumpington and Woodditton

Potential strategic implications for future rail services in other wards served by railway lines into Cambridge

Forward Plan ref: Key decision: No

Purpose: To consider the future requirements for rail infrastructure in the Cambridge area to cater for planned growth

Recommendation: Members are asked to:

- a) Welcome the Cambridgeshire Corridor Study**
- b) Highlight to the Cambridgeshire and Peterborough Combined Authority (CPCA), the Greater Cambridge Partnership (GCP), Local Planning Authorities, the Department for Transport (DfT) and Network Rail:**
 - i the need for investment in Business Case development for the improvements needed in the Cambridge Station area as part of DfT's Rail Network Enhancement Pipeline (RNEP) process.**
 - ii the need to ensure that emerging growth plans contained in the CPCA's Non-Statutory Spatial Plan or new Local Plans is assessed in an update to the study at the appropriate time.**
 - iii the opportunity to deliver the eastern access to Cambridge station as part of the capacity enhancement works at Cambridge station.**
 - iv the need to consider the opportunities presented by enhancements to the rail network in the Cambridge area for the CPCA's transport strategy, and for the Cambridge Autonomous Metro (CAM) and the wider public transport network.**

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1. BACKGROUND

- 1.1 The Cambridgeshire Corridor Study (CCS) assesses forecast housing and economic growth in 2033 and to 2043, and considers the rail infrastructure and services that will be needed to provide for the demand of that growth on rail routes into Cambridge.
- 1.2 The CCS forms part of Network Rail's Continuous Modular Strategic Planning and has been funded by the Department for Transport (50%), with the other 50% split equally between the County Council, the Cambridgeshire and Peterborough Combined Authority and the Greater Cambridge Partnership.
- 1.3 In May 2020 there will be 15 trains per hour in the busiest peak hour into and out of Cambridge station. In practical terms, almost all available platform capacity at Cambridge station will be in use, and the four platforms that cater for through services (platforms 1, 4, 7 and 8) will have no spare capacity at all.
- 1.4 The study looks at services into Cambridge, which is in Network Rail's Anglia Route area. It does not consider the East Coast Main Line, services to Huntingdon and St Neots, or a new station at Alconbury, as these are in Network Rail's East Coast Route area.

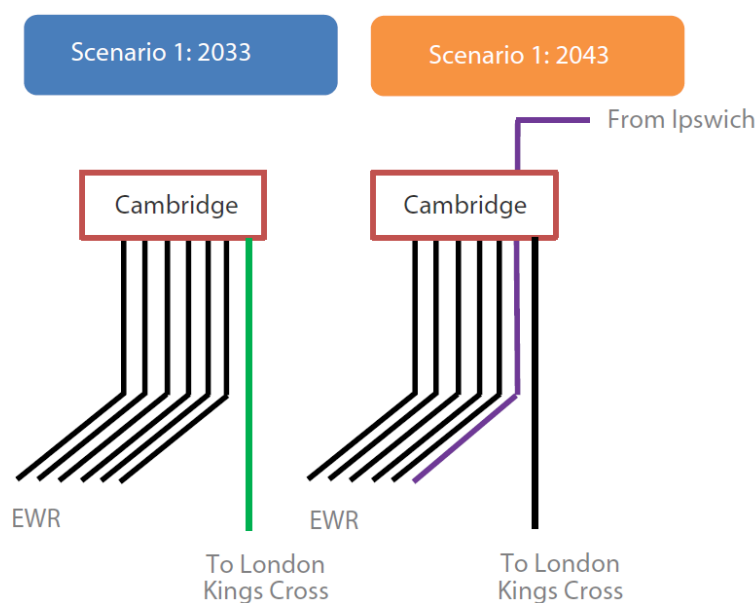
2. STUDY METHODOLOGY AND OUTPUTS

- 2.1 The CCS assumes Cambridge South Station and four tracking between Cambridge Station and the Shepreth Branch junction will be in place.
- 2.2 The CCS does not specifically consider the infrastructure needed for the East West Rail (EWR) Central Section between Cambridge and the Bedford area, or enhancements needed in the Ely Area, as these are already being worked on separately. It does however assume that the EWR Central Section and the Ely Area Capacity Enhancements projects will permit additional and longer trains to run into the Cambridge area.
- 2.3 The CCS considers two growth scenarios:
 - Scenario 1: A baseline growth scenario that is consistent with Treasury Green Book guidance.
 - Scenario 2: A higher growth scenario consistent with levels of housing and economic growth seen over the past decade in Greater Cambridge and the surrounding area.
- 2.4 Having looked at the growth assumptions, the CCS then considers:
 - the additional train services that would be needed to cater for that growth;
 - the infrastructure required to cater for those additional services; and
 - the stabling that would be needed to house the additional trains.
- 2.5 The CCS concludes with recommendations for future development work.

Service requirements in the baseline growth scenario (Scenario 1)

- 2.6 For baseline growth scenario in 2033, the following additional services (from 2020 levels) will be needed in the peak hour:
- 6 services from the EWR Central Section into Cambridge.
 - 1 additional service to London Kings Cross (starting at Cambridge).
- 2.7 In 2043, an additional service will also be required towards Ipswich, which the study assumes would be an extended EWR service.
- 2.8 The additional peak hour trains needed in Scenario 1 are shown in Figure 1.

Figure 1: Additional services* required into Cambridge to cater for demand in 2033 and 2043 in growth Scenario 1



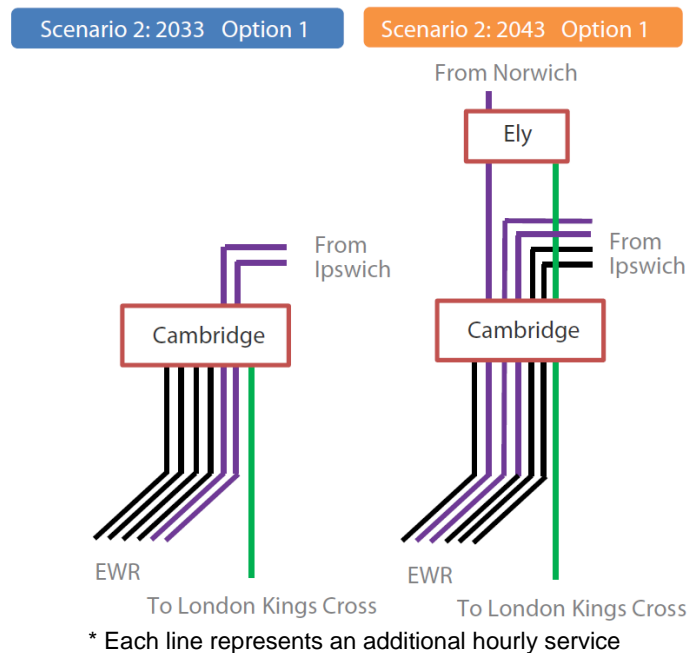
* Each line represents an additional hourly service

Service requirements in the higher growth scenario (Scenario 2)

- 2.9 For higher growth scenario in 2033, the following additional services (from 2020 levels) will be needed in the peak hour:
- 6 services from the EWR Central Section into Cambridge.
 - 1 additional service between Cambridge and London Kings Cross.
 - 2 additional services between Ipswich and Cambridge.
- 2.10 In 2043, the following additional services would be needed:
- The 2033 Cambridge to Kings Cross service noted in paragraph 2.9 above lengthened and to start at Ely rather than Cambridge.
 - 2 further additional services towards Ipswich (probably starting at Newmarket or Bury St Edmunds).
 - 1 additional service between Cambridge and Norwich.
- 2.11 The services to Ipswich and Norwich noted in paragraphs 2.9 and 2.10 are assumed to be extended services from EWR rather than separate services.

2.12 The additional trains needed in Scenario 2 are shown in Figure 2.

Figure 2: Additional services* required into Cambridge to cater for demand in 2033 and 2043 in growth Scenario 2

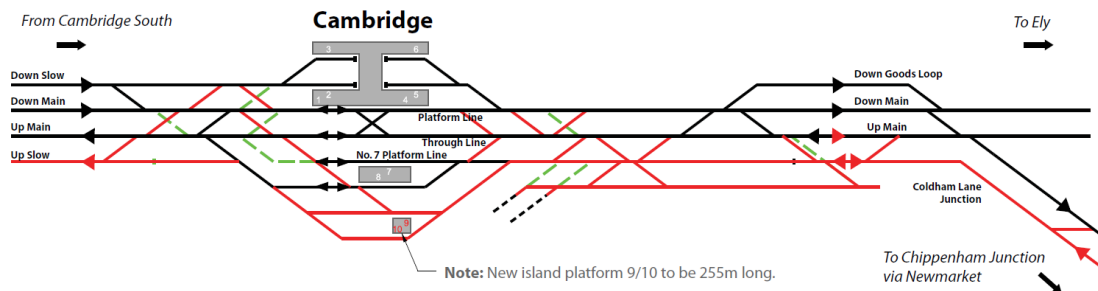


Infrastructure requirements

2.13 Figures 3 and 4 show the layout needed in the Cambridge Station area and on the line to Newmarket respectively to cater for the services detailed in paragraphs 2.5 and 2.6 for Scenario 1. Over and above the improvements south of Cambridge Station needed for EWR, there is a need for:

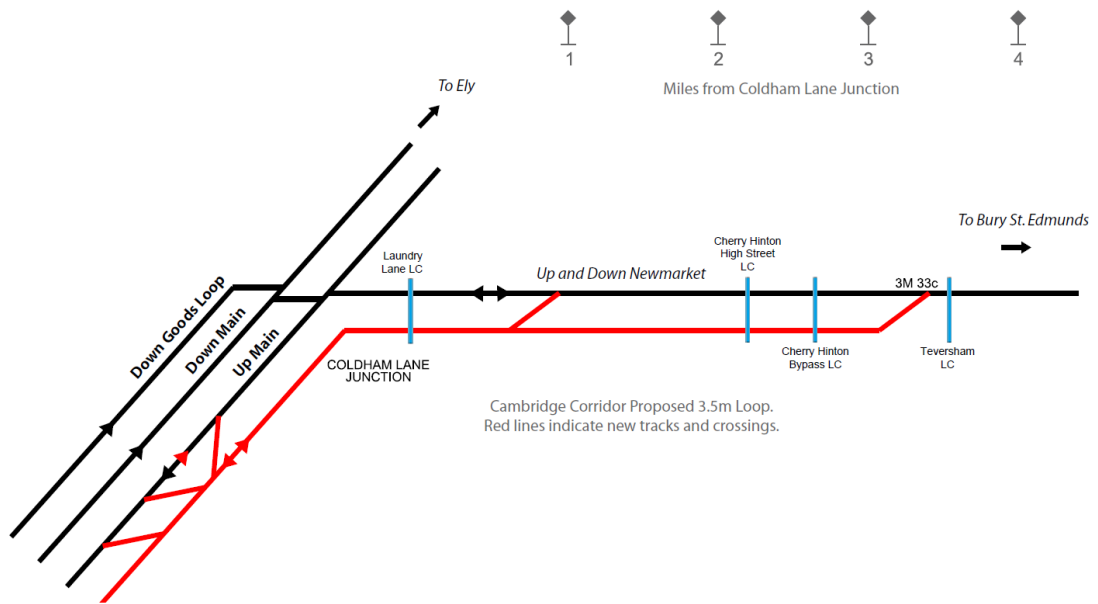
- Two additional 12 carriage through platforms (Platforms 9 and 10).
- A third bi-directional running line between Cambridge Station and the Coldhams Lane junction between the Ely and Newmarket lines.
- Track doubling for three and a half miles from the Coldhams Lane junction towards Newmarket.
- A turn-back loop at Newmarket to allow trains to be terminated there without blocking the running line.

Figure 3: Additional track and platform capacity needed in the Cambridge Station area for Scenario 1



2.14 In the Cambridge Station area, the additional track capacity shown in Figure 3 will largely cater for the additional services in growth Scenario 2. However, it is likely that further capacity will be needed on the line to Newmarket to provide for the five services an hour in each direction in Scenario 2.

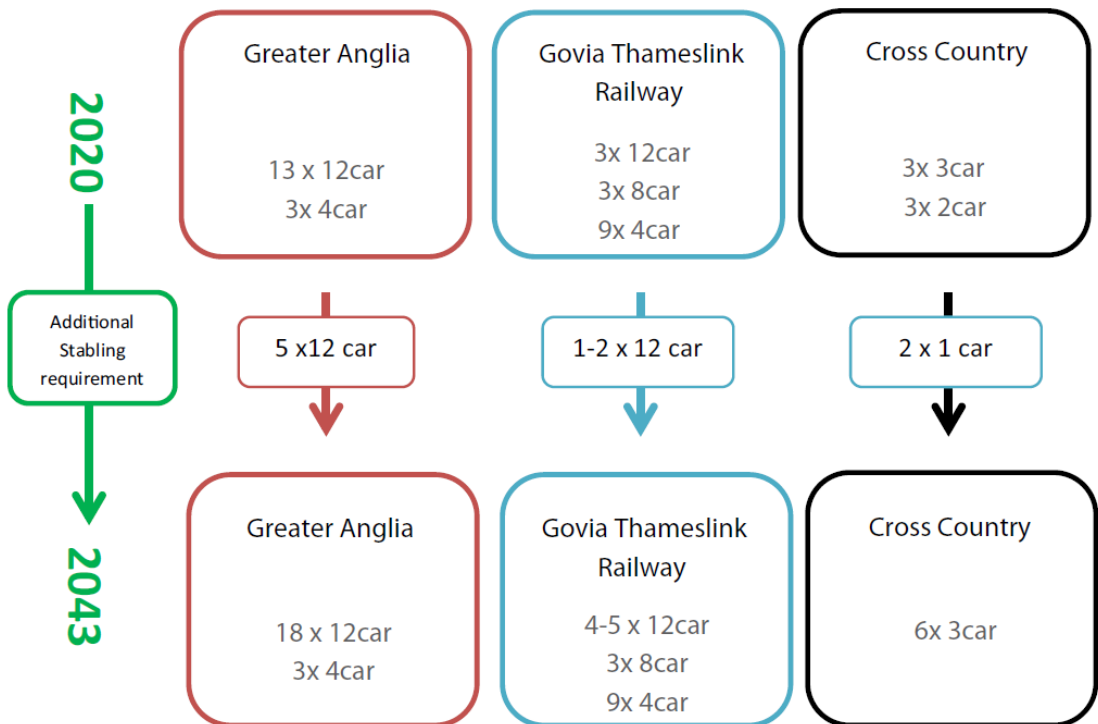
Figure 4: Additional track capacity needed on the line to Newmarket and Ipswich for Scenario 1



Train stabling

- 2.15 The ability to park trains near to where they start and finish their journeys is important for running an efficient railway, and there is already a shortfall in sidings capacity in the Cambridge area for existing and planned services.
- 2.16 By 2043, excluding EWR services, there will be a requirement for further additional train stabling in the Cambridge area as shown in Figure 5.

Figure 5 Stabling requirements from 2020 to 2043



Costs

- 2.17 Indicative costs of the infrastructure noted above (excluding stabling) are shown in Figure 6.

Figure 6 'Order of Magnitude' scheme costs

Infrastructure	Cost
Cambridge Station to achieve 2033 and 2043 passenger service requirements (see Figure 3)	£191M to £220M
Newmarket Single Doubling to achieve 2043 train service requirement (see Figure 4)	£131M to £151M
Newmarket turn-back option	£4.5M to £5M

Proposed next steps

- 2.18 The CCS recommends further scheme development work in priority order.
1. Interim train stabling solutions.
 2. Joint workstream:
 - o Cambridge Station enhancements.
 - o Overall train stabling requirements to 2043.
 3. Newmarket Line capacity.
- 2.19 It highlights the need for these workstreams to be integrated with work on Cambridge South, East West Rail and the Ely Area Capacity Enhancements. Network Rail are planning to produce a Strategic Outline Business Case for the Cambridge Station Enhancements in the next twelve months. The CPCA will ensure that work on the CAM is considered in conjunction with this work.

3. OFFICER COMMENTARY

Growth scenarios

- 3.1 While the study looks at two growth scenarios, it should be noted that the technical work to identify interventions has largely focused on the baseline growth scenario (Scenario 1). There is reassurance that this is appropriate, as the work has identified that Scenario 1 interventions at Cambridge Station could cater for Scenario 2 growth with relatively minor changes. The CCS recommends that if short term growth continues on a trajectory consistent with Scenario 2, that further assessment of the outputs of the study will be needed.
- 3.2 The CCS does not look at growth levels that would be consistent with either the Cambridgeshire and Peterborough Independent Economic Review (see <http://www.cpier.org.uk/final-report/>) or the National Infrastructure Commissions "Partnering for Prosperity: a new deal for the Cambridge-Milton Keynes-Oxford Arc" (see <https://www.nic.org.uk/publications/partnering-prosperity-new-deal-cambridge-milton-keynes-oxford-arc/>).
- 3.3 It is therefore critically important that as the Cambridgeshire and Peterborough Combined Authority's Non-Statutory Spatial Plan and reviews of the City and district Local Plans move forward, a review or update of the CCS is undertaken to ensure that it robustly addresses local and national plans for growth.

East West Rail Eastern Section

- 3.4 The EWR Central Section is being worked on separately and is assumed to be feeding trains into the Cambridge area from the west in the base case.
- 3.5 To the east of the city, the Cambridge to Newmarket Line is a key part of the EWR Eastern Section between Cambridge and Ipswich. There is an opportunity for improvements on this line to be delivered ahead of or at the same time as the EWR Central Section, as a first stage of Eastern Section works, and as an opportunity to see early commencement of EWR services to Ipswich. This ties in with the concern over levels of growth noted above.
- 3.6 Similarly, there is an opportunity for the early commencement of EWR services to Norwich, although also depends on delivery of the Ely Area Capacity Enhancements and the allocation of new train paths in the Ely area.

Cambridge Station passenger capacity / eastern entrance

- 3.7 The identification of improvements to Cambridge station in the CCS is focussed on capacity for trains. An equally important issue is the capacity of the platforms and station buildings to cope with future passenger numbers. This needs to be considered in future work. The opportunity to deliver the eastern access to Cambridge Station and potentially more cycle parking on the eastern side of the station should be explored as part of that work.

Consideration with Cambridge Autonomous Metro

- 3.8 The Cambridge Autonomous Metro (CAM) proposals show a branch to Mildenhall. If significant development takes place at Mildenhall, consideration might be given as to whether a rail extension from Newmarket or the Soham area would be appropriate instead of or complementary to CAM, in the context of an additional four services an hour from Cambridge towards Newmarket in growth Scenario 2.

4. ALIGNMENT WITH CORPORATE PRIORITIES

4.1 A good quality of life for everyone

The implications for this priority are set out in paragraphs 2.3 and 2.4 above.

4.2 Thriving places for people to live

There are no significant implications for this priority.

4.3 The best start for Cambridgeshire's children

There are no significant implications for this priority.

5. SIGNIFICANT IMPLICATIONS

5.1 Resource Implications

There are no significant implications within this category.

5.2 Procurement / Contractual / Council Contract Procedure Rules Implications

There are no significant implications within this category.

5.3 Statutory, Legal and Risk Implications

There are no significant implications within this category.

5.4 Equality and Diversity Implications

There are no significant implications within this category.

5.5 Engagement and Communications Implications

There are no significant implications within this category.

5.6 Localism and Local Member Involvement

There are no significant implications within this category.

5.7 Public Health Implications

There are no significant implications within this category.

SOURCE DOCUMENTS

Source Documents	Location
Cambridge Corridor Study	https://cdn.networkrail.co.uk/wp-content/uploads/2019/04/Cambridgeshire-Corridor-Study-2019.pdf Room 301, Shire Hall, Cambridge

Implications	Officer Clearance
Have the resource implications been cleared by Finance?	Yes Sarah Heywood
Have the procurement / contractual / Council Contract Procedure Rules implications been cleared by the LGSS Head of Procurement?	Yes Paul White
Has the impact on statutory, legal and risk implications been cleared by LGSS Law?	Yes Fiona McMillan
Have the equality and diversity implications been cleared by your Service Contact?	Yes Elsa Evans
Have any engagement and communication implications been cleared by Communications?	Yes Sarah Silk
Have any localism and Local Member involvement issues been cleared by your Service Contact?	Yes Andy Preston
Have any Public Health implications been cleared by Public Health	Yes Stuart Keeble