

East West Main Line Partnership Strategic Board

14 June 2023

Agenda Item 3: Route update

It is recommended that the Board:

- a) Hears a presentation from the East West Railway Company regarding its route update

1. Context

- 1.1. On 26 May, the East West Railway Company published its route update report which detailed its current position on East West Rail's alignment from Bletchley to Cambridge, alongside issues such as the London Road level crossing in Bicester and route-wide issues such as electrification and environmental mitigation (see annex below for a summary of the update).
- 1.2. During 2022, the East West Main Line Partnership produced Building Better Connections, capturing the business imperative for East West Rail. This been credited with playing a significant role in securing the Chancellor's recommitment to East West Rail in November 2022.
- 1.3. The Oxford-Milton Keynes section of East West Rail is due to open in late 2024 with the intention to run services to Cambridge by 2030.

2. Route options announcement

- 2.1. The route options report details the East West Railway Company's current position on East West Rail's alignment from Bletchley to Cambridge.
- 2.2. A summary of the key positions taken by the Company is in the annex.
- 2.3. The meeting will hear from East West Railway Company's chief executive, Beth West, presenting an overview of the announcement and next steps.
- 2.4. East West Rail's delivery is a strategic priority, supporting net zero, economic growth and acting as a catalyst for the improved provision of public transport and active travel.
- 2.5. The Partnership's statement on the day of the route announcement, agreed by the Chair, balanced the strategic importance of the scheme for the Partnership with the key role local authorities will be playing in representing their communities who may be impacted, the need to learn lessons from previous sections, and the importance of delivering the link to Aylesbury and the wider East West Main Line. It said:

"The East West Main Line Partnership has been campaigning for East West Rail for nearly 30 years – and so today's announcement is another welcome step towards making the scheme a reality.

"Our local authority members will now rightly be looking to understand the implications of the plans so they can represent the views of their residents and businesses accordingly. However, while there may understandably be a range of views on the specifics of the scheme published today, it remains the case that East West Rail will transform our region, unlocking new opportunities for people and businesses to flourish.

"Indeed, last year we held discussions with businesses in the region and their message was clear: East West Rail cannot be built soon enough. It will provide access to labour, boost productivity and collaboration and support the ambition for Britain to become a science and technology superpower.

"It is crucial that during the detailed planning for the construction of the next phases of East West Rail, the lessons learnt from the construction of the Bicester to Bletchley section such as the impact on local roads and timely engagement with residents are acted upon so that disruption to local communities is minimised. This has been a key area of interest for Partnership Board members and will continue to be so going forwards.

"It's also important to recognise that East West Rail's potential goes far beyond the route outlined in today's announcement. The East West Main Line Partnership will continue to make the strongest case for the connection to Aylesbury – clarity is required as soon as possible on this essential link, which was an integral element of the original proposals.

"We will continue to highlight the potential of an East West Main Line stretching from Ipswich and Norwich through to Swindon, Bristol and South Wales, alongside the imperative for seamless interchange to ensure places within a short rail journey of an East West station can maximise opportunities from it."

Adam King
(on behalf of) East West Main Line Partnership Secretariat
March 2023

ANNEX: East West Rail route options summary

The following are extracts from the East West Railway Company's Route Update Report, published on 26 May 2023.

The first section is on route preferences and towards the bottom route-wide matters (including power mode and freight) are discussed.

ROUTE PREFERENCES

Increasing rail capacity between Oxford and Bicester

Oxford station does not yet provide enough capacity to accommodate the full set of planned EWR services. Network Rail is already planning work at Oxford station both in the short and medium term, and we're working with them to ensure an integrated solution that both supports EWR services and wider growth ambitions in the area. To be sure that EWR could operate should the full Network Rail schemes not be completed as expected, we're also working with them on a number of EWR specific enhancements as a contingency. At Oxford Parkway and Bicester Village stations, we're exploring whether further work would be needed to accommodate EWR services.

Maintaining connectivity at London Road in Bicester

London Road level crossing in Bicester is a vital route for people to get into the town centre on foot, by bicycle, public transport and car. Once all EWR services are introduced on the line, the barriers are expected to be down for a significant portion in every hour. At the 2021 consultation we suggested six concepts, and thanks to the feedback we received and ongoing work, we've been able to rule out five of these. We've yet to confirm a preferred solution as we're continuing to consider options for the crossing that keep the town connected and minimise inconvenience.

As part of this, we're considering how the crossing could be safely kept open for local traffic. For pedestrians and cyclists, we're giving further consideration to either a bridge or underpass close to the existing crossing. For motorists, building a new road bridge in a town centre location is not straightforward, so finding the right location for a new road bridge which enables easy access to the town centre is our priority for the next stage of design work.

Aylesbury [note: the following extract comes from the Economic and Technical Report which accompanies the announcement]

Reconsidering Aylesbury connections did not open up more affordable solutions for EWR, and conventional transport modelling analysis continues to suggest that the benefits of extending EWR services to Aylesbury do not justify the costs. As such, Scheme Options serving Aylesbury were not progressed further under the ACP [Affordable Connections Project]. Notwithstanding this conclusion, there are local aspirations for an Aylesbury service connecting to EWR and the possibility remains that a strategic case could be made, should a case for growth be identified. EWR Co continues to review the potential for such a service as a separate proposal.

Improving services and reducing disruption along the Marston Vale Line

At the 2021 consultation we explained that it's not possible to introduce a fast and frequent service between Oxford and Cambridge without making a significant investment in the Marston Vale Line (MVL). Also, the current infrastructure has not had significant upgrades for decades, which has affected reliability. The communities it serves have grown considerably over time² and lack the reliable connections they need to centres of education and employment in Bedford, Milton Keynes and beyond. We've looked further at the potential number of passengers that could use stations on the MVL and we believe that three trains per hour (tph) would meet this need, rather than the four to five tph that we set out previously.

At the next stage we'll consider all three services together in identifying the best timetable and stopping pattern for communities along the line of the railway. This change in frequency allows us to maintain the benefits of EWR, and requires less construction work to upgrade the line, which would reduce disruption to local communities and passengers, as well as reducing cost. We're also suggesting capping the line speed below the 100mph originally proposed, but above the current speed of 60mph. This would reduce disruption in residential areas, but still provide a faster service than currently available. Combined with our updated view on frequency, the lower line speed means that some level crossings – for example at Woburn Sands and Lidlington – could still meet the appropriate safety standards and so could be retained. This would be one of the many ways we'd maintain local connectivity across and between communities. The reinstatement of the second track at Fenny Stratford is still required, as is the short length of additional track to dual track the railway in the Bedford St John's area.

A new station for Bedford Hospital

The railway at Bedford St Johns is unable to accommodate the proposed EWR train services, as there's only one track on this part of the railway and only one platform at Bedford St Johns station³, which limits capacity. The track is also on a very tight curve, limiting the train speed to 15mph. We propose to relocate the existing Bedford St Johns station closer to Bedford Hospital. This would provide a better location that's more convenient for patients, hospital staff and visitors, while also allowing us to improve the alignment of the railway into Bedford station.

Serving central Bedford and connecting with the wider rail network

Bedford station is already an important transport hub for the region, providing a gateway into the town centre and easy connections to Thameslink and East Midlands Railway (EMR) services on the Midland Main Line (MML). Introducing EWR services would strengthen the hub and support local aspirations⁴ for more jobs, prosperity and growth. Improvements to Bedford station would contribute to the regeneration of the area immediately around the station, as well as the centre of Bedford. We looked again at alignments that pass to the south of the town or re-use parts of the former alignment of the closed Varsity Line, but these alternatives have significant environmental impacts and cause loss of public open space. For example, a route re-using the former Varsity Line in Bedford would pass through Priory Park, which has protected status.

Therefore, we've concluded that the preferred alignment from the 2021 consultation, passing through Bedford station and to the north of the town along the MML, remains the best option for Bedford. We propose to redevelop the station to take account of the required capacity and new infrastructure needed for EWR services and in doing so help support the local authority's plans for regeneration in the Station Quarter. After extensive work⁵ to test whether we can run services on the existing MML without building additional tracks, we've concluded that we need an additional two tracks north of the existing Bedford station. This is to ensure EWR could provide a reliable service which does not conflict with other trains. To construct these new tracks, we'd need to acquire some properties near the current railway boundary.

At the last consultation we thought we might need to acquire up to 97 residential properties, but we've continued to challenge the design in this area and believe this figure is now reduced by a third, to 65. Even though we've reduced the number of impacted properties we continue to look for ways to further limit the impact of EWR in this area, and we're launching a scheme to help homeowners in this area with immediate effect. Further information on the Proposed Need to Sell Property Scheme can be found in chapter 8 of this report and full eligibility criteria can be found at: eastwestrail.co.uk/needtosell

Connecting Bedford and Cambourne

To deliver a service between Bedford and Cambourne, we would need to build a new railway in this section. In the 2021 consultation we presented a range of possible route alignment options for where the railway line could be located. Using feedback from the last consultation and further studies, we've concluded that one of our emerging preferences in 2021, Alignment 1 (see Figure 15), provides the best option for the majority of its length. We believe the identified environmental impacts can be mitigated and that this alignment would have the least visual impact for local communities. It would also serve a new station at Cambourne North, maximising economic opportunities for the town.

Our analysis also showed us that a station near Tempsford (part of Alignment 9 (see Figure 15) would have greater advantages compared to a station at St Neots South (part of Alignment 1).

A Tempsford station would be better located to enable a new community to grow, including opportunities to improve biodiversity and give more people access to green spaces. There would also be more opportunity at Tempsford to design the railway so that it could be at the centre of the local travel network including good walking, wheeling for those using mobility aids and cycling routes. Considering the above points, we've concluded that the best option is to follow the route of Alignment 1 for most of the route, but we have an emerging preference for a local variation so we can provide a new station at Tempsford. We refer to this new route as Alignment 1 (Tempsford variant).

Connecting more people with opportunities in Cambridge

At the last consultation, we expressed our preference for a southern approach into Cambridge, serving the Cambridge Biomedical Campus via the new station at Cambridge South. We've looked again at this approach and compared it with a northern approach and one that serves Cambridge North station. We've been able to make meaningful improvements to the northern option which we previously considered, particularly in terms of reducing the need for two additional tracks on the existing railway, which would significantly reduce its cost.

We've also been able to make material improvements to the impact of the southern approach, by reducing the need for and height of embankments and viaducts through South Cambridgeshire. We've concluded that, despite the northern approach potentially being a cheaper option than the south, it doesn't deliver the same economic benefits. Life sciences have grown around the world at an unprecedented rate over the past two decades, and Cambridge Biomedical Campus is a driver for economic growth, creating high value jobs and attracting investment. It brings together that 'triple helix' of the public and private sectors, combined with academia, which characterise the most successful life sciences clusters around the globe. It's also part of a wider life sciences cluster growing south of Cambridge. These circumstances aren't matched in the north.

In addition, there are three times as many jobs within walking distance of Cambridge South station compared to Cambridge North. The existing transport network is also more congested in the south, making it harder for existing employees to get to work, and limiting further job creation. We considered whether it would be possible to serve Cambridge South station taking the northern approach but concluded that this would reduce the frequency of trains and extend journey times, including likely requiring passengers to change trains, to an unacceptable level. It would make it harder for people living in Bedford, the Marston Vale or near St Neots/Tempsford to access the jobs at the Biomedical Campus – and therefore it wouldn't deliver the economic opportunity that underpins the case for EWR. Having reviewed all the consultation feedback and following this extensive further study our conclusion remains that approaching Cambridge from the south is the best solution for the city, the region and – given the global opportunity at the Biomedical Campus – for the whole of the UK too. Approaching Cambridge from the south also means that EWR does not take up the existing capacity on the rail network north of the city, leaving this option available for others in the future.

ROUTE-WIDE MATTERS

Reducing the impact of embankments and viaducts

During the 2021 consultation, we presented outline details about where the new railway might need to be 'on embankment/viaduct' along its southern approach to Cambridge and presented the 'reasonable worst case' scenario. Our work since the consultation has helped us to identify potential opportunities to reduce or remove viaducts and embankments. We believe we could remove or reduce the height of approximately half the embankments or viaducts (by length) compared to what was shown at the consultation. This work will be developed further and we'll provide details for comment at the statutory consultation.

Powering the trains

We're focused on delivering a net zero carbon railway. We're continuing to evaluate a range of technological solutions for powering our trains and we'll share more information at the statutory consultation.

Considering freight

EWR's primary purpose is to support economic growth as a passenger railway – to connect lives and unlock opportunities. Alongside this, and noting that some freight already runs on sections of our route, we're considering whether EWR might also support new freight opportunities as part of delivering wider economic growth. These opportunities would need to be balanced against the required investment and also the impact to local communities. When it opens, our railway is likely to enable up to two additional freight trains per day in each direction from Oxford to Bletchley, and another two from Cambridge to Oxford. This would take nearly 70,000 HGV journeys off the road each year, and the volume of additional freight trains would be unlikely to exceed this level without significant further investment, both on EWR and elsewhere on the rail network.