Making Meaningful Connections

Consultation Document

East West Rail Consultation:
31 March – 9 June 2021

Contents

01.

Consultation Summary

The East West Railway Company (EWR Co) is asking communities, local representatives and stakeholders to give us comments and thoughts on our developing plans for East West Rail (EWR).

This non-statutory consultation is your opportunity to tell us what you think about the options for building the railway that we have identified, as well as your expectations for the customer experience on the new railway. We would like to hear from you while our plans are still at a formative stage, so we can create the best possible railway for the communities the line will serve and minimise any negative impacts. There will be a further opportunity for you to tell us your views as the Project develops.

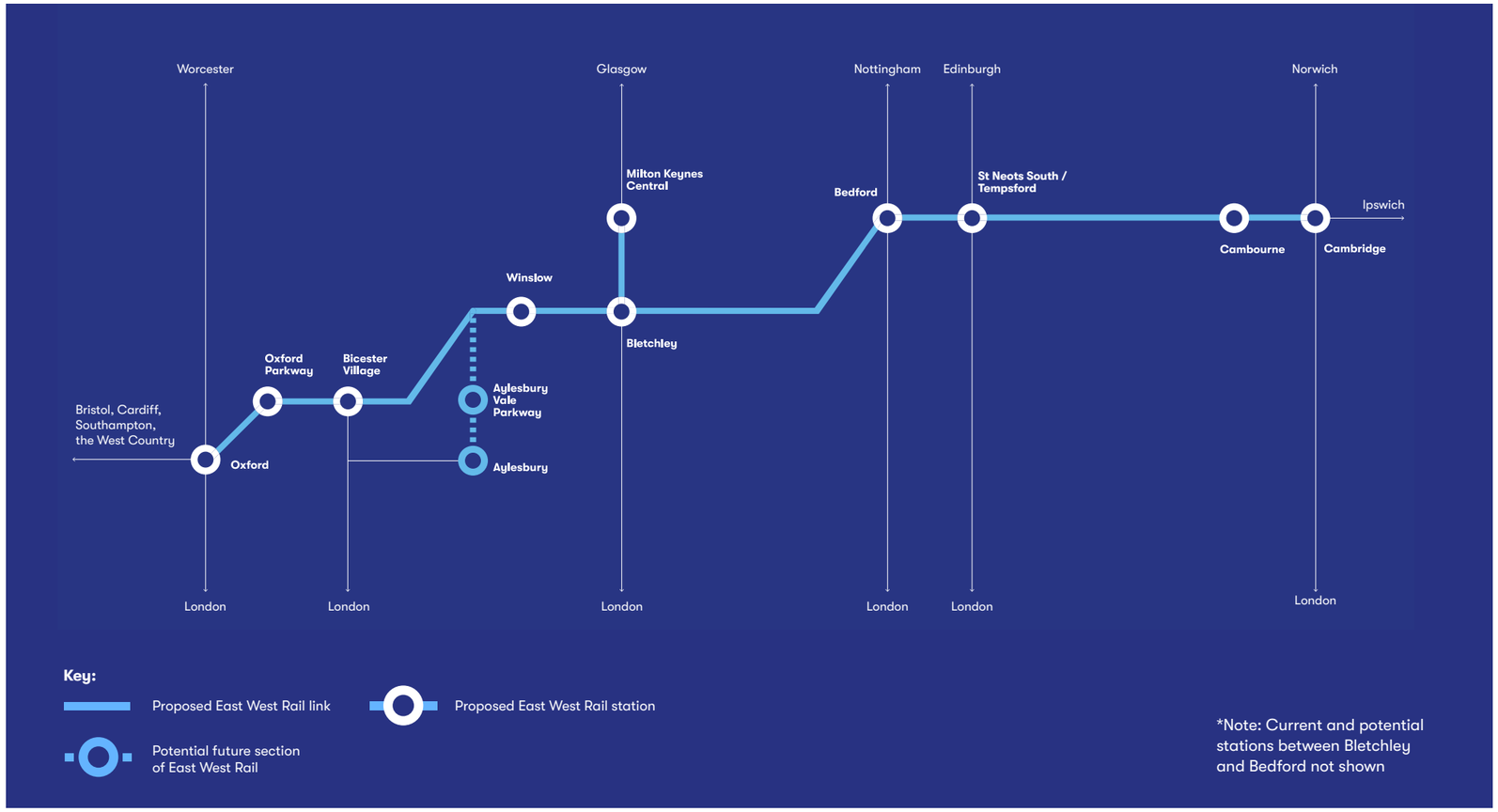
This summary document provides:

- An introduction to the East West Rail Project and EWR Co
- A summary of the developing plans on which we are consulting
- Where to find further information about our plans if you want to know more
- The ways you can respond to this consultation. Please note, the deadline for responses is 9 June 2021
- Next steps in the process, explaining how and when you will get further opportunities to share your thoughts.

What is East West Rail?

East West Rail is a proposed new rail link, which would connect communities between Oxford, Milton Keynes, Bedford and Cambridge. By making it cheaper and quicker to get around, by boosting the local economy, creating jobs and supporting more affordable new homes locally, the new railway line would create a range of opportunities for people right across the area. It will also help spread prosperity across the UK by supporting opportunities for economic growth in towns and cities outside London.

The Project is being delivered in stages. Trains are already running between Oxford and Bicester, and we aim to have trains running the full length of the line between Oxford and Cambridge by the end of the decade.



EWR route between Oxford and Cambridge

The consultation process

This is the second public consultation we have carried out to share our Project plans. Following this consultation we will carefully analyse all your responses and publish a summary report in which will explain how we have taken them into account. We will use your consultation responses alongside continuing environmental, economic and technical studies to help us shape various aspects of the Project. We will have a further stage of consultation following which we will submit the application for powers to build the new railway to the Secretary of State for Transport.

Visit **www.communityhub.eastwestrail.co.uk** for previous consultation information and up to date Project information.

This Consultation Summary provides an overview of the proposals on which we are consulting. Other documents available which provide further information are set out in the table below.

Document	Description
Consultation Document	A document setting out all of our proposals that we are consulting you about, with more detail than this Summary.
Consultation Response Form	Please use this form to share your thoughts. We encourage you to respond online. If you do not have access to the Internet or would like to respond on paper, please let us know.
Consultation Technical Report	This contains detailed, technical information which supports the Consultation Document. It sets out how we have assessed options during design development, and how we have considered environmental factors.
Consultation Drawings	These drawings show the proposed alignment options between Bedford and Cambridge and the location of any proposed works between Oxford and Bedford.
Engineering Long Section Drawing	A Long Section Drawing is available for each route alignment option between Bedford and Cambridge, which shows its vertical alignment (height) relative to ground levels. These are draft and will change as design progresses.
You Said, We Did	This document refers to our previous consultation about the route option between Bedford and Cambridge and how your responses informed our proposals.
Appendices	There are several additional documents which provide further background information.
Guide to the proposed Need to Sell Scheme	A consultation guide to our proposed discretionary purchase scheme which aims to support owner occupiers who have a pressing need but are unable to sell their property, except at a substantially lesser value, due to the project following the announcement of the preferred route alignment for the railway. We are seeking your views on our proposal.

Please visit **www.eastwestrail.co.uk** for more information about East West Rail, and to hear more from the EWR Co team.

Summary of the consultation

We want to hear your views on developing plans for East West Rail. We are grateful for any thoughts you'd like to share, including on two particularly key themes:

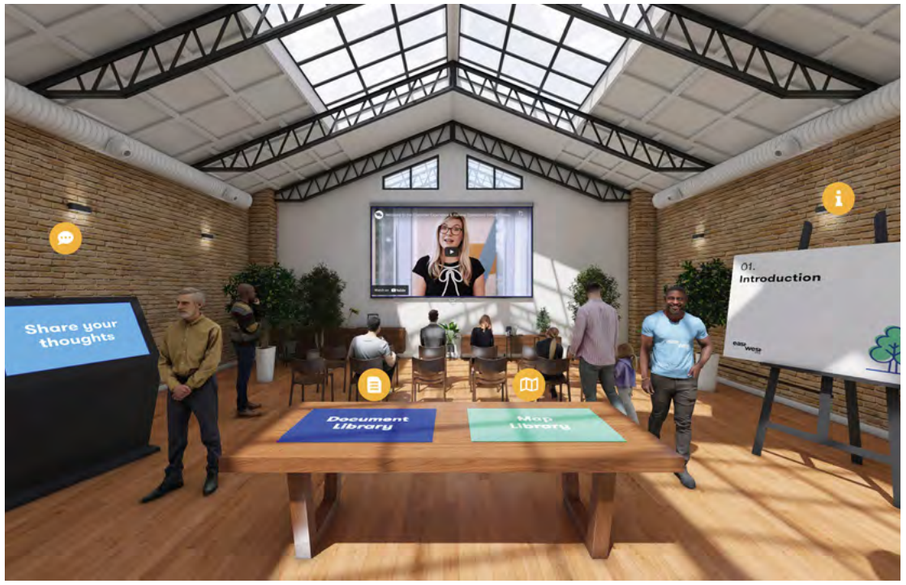
1. Customer experience and railway operations

2. Our infrastructure proposals – such as route alignments, stations and level crossings.

We are taking into careful consideration a number of important factors as we continue to develop plans for East West Rail. These include how we provide the right type of service for our customers, which route alignment works best for the communities we plan to serve and the overall plan for stations as the Project progresses.

We have used several assessment factors to assess and compare different options for the Project. You can find more information on these factors in the Consultation Document.

A local briefing on the Bedford to Cambridge Preferred Route Option (2020)



Virtual Consultation Room

Please let us know your views

Ahead of our programme of online meetings, we will be opening our Virtual Consultation rooms where you can learn more about the developing plans for East West Rail: **www.eastwestrail.co.uk/virtual**

Here you can:

- View and download detailed chapters from the Consultation Document and Technical Report
- Watch videos explaining key aspects of the consultation
- Take part in consultation events
- Respond to the consultation

Please respond by 9 June 2021.

For environmental and cost reasons, we urge as many people as possible to use the website to view materials and the online feedback form to share your views. If you are not able to get online to view the documents, please do get in touch. You can find our contact details at the end of this document.

Ongoing COVID-19 restrictions relating to people gathering together mean that we are unable to plan face to face events in the community during this consultation. However, we believe it's critical that as many people as possible are able to take part. We have made every effort to reach out to communities through town and parish councils, local authorities, rail user groups and other local groups, for whom we will be holding virtual briefing sessions during the consultation.

We have sent one of these summary documents to around 300,000 homes and businesses in the area, have arranged for adverts to be placed in local media, and will be holding online events for the public during the consultation. If you are unable to join online, call our team on 0330 134 0067 and discuss how you can join by phone. We hope you take the opportunity to share your views. There will be a further consultation so there will be another opportunity to tell us your views.

Thank you for helping create a great railway for your community.

1. Customer experience and railway operations

EWR Co has been created to develop a railway with customers and communities at its core.

Whether you plan to use the new rail service to get to work, for business, education, leisure activities or to visit family and friends, we want you to have the best possible experience. That includes not only frequent, punctual services that you can rely on, but the wider experience, such as:

How, when and where you receive information on train services

Your interactions with our colleagues

The on-train facilities

The design of new stations

We are keen to hear from potential future customers including people who live and work in the area. We want to hear your ideas and understand what's important to you. All feedback will help ensure we deliver an excellent rail service as well as a great customer experience for you and your community.

Details about where to access more information and how to respond to this consultation can be found in the final section of this document.

2. Infrastructure development

East West Rail will connect communities between Oxford and Cambridge, improving parts of the existing rail network – and building a new section of line – to deliver a reliable service for passengers and communities.

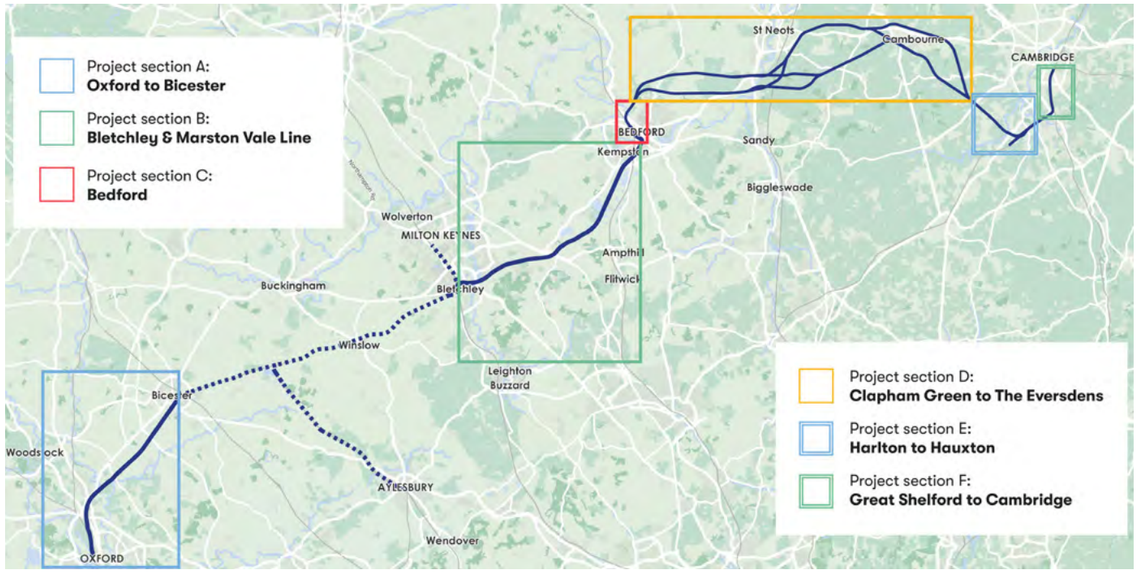
We have divided the East West Rail route into sections to help focus on the most important questions in each area.

- **Section A:** Oxford to Bicester - improvements to the existing railway and stations
- **Section B:** Bletchley and the Marston Vale Line - improvements to the existing infrastructure, stations and level crossings
- **Section C:** Bedford - a new Bedford Station, a new Bedford St Johns Station, improvements to the existing railway and a new section of railway
- **Section D:** Clapham Green to The Eversdens - the main section of new railway and new stations
- **Section E:** Harlton to Hauxton - new railway and a new railway junction
- **Section F:** The Shelfords to Cambridge station - improvements to the existing railway and Cambridge station.

Supporting property owners

In developing our proposals, we aim to minimise the negative impact this may have on people's land and property and mitigate any impacts we cannot avoid. While we don't yet know for certain which land or property will be needed, we know that publishing our plans could potentially affect people needing to sell their home or small business. We are consulting on a discretionary purchase scheme, the Need to Sell Scheme, that, if introduced, could support owner occupiers once the announcement of the preferred route alignment for the railway has been made. The proposals are set out in our Guide to the proposed Need to Sell Scheme which is available on our website **www.eastwestrail.co.uk**

Sections of the route which we are consulting on



Section A: Oxford to Bicester - improvements to the existing railway and stations

Why are we proposing this work?

The stations and railway lines between Oxford and Bicester do not have the capacity to run the four trains per hour service that is planned for East West Rail. Therefore, we need to create more capacity for these services.

The proposed changes would provide people living, working and visiting the area around Oxford and Bicester with fast and reliable train services to Bletchley, Cambridge and stations in between - as well as better connectivity to the wider rail network.

The changes would also seek to improve the customer experience at Oxford, Oxford Parkway and Bicester Village stations.

Section A
proposals map

London Road level crossing, Bicester

What are the developing plans for this section?

Improvements at Oxford, Oxford Parkway and Bicester Village stations to accommodate more trains and more customers

Proposals for one or more additional platforms at Oxford station

Improvements to the track in the Oxford area to increase capacity for EWR trains to approach Oxford

Alternative ways for vehicles and pedestrians to cross the railway at London Road in Bicester to improve safety, to enable a faster, more reliable train service, and to reduce traffic disruption.

Details about where to access more information and how to respond to this consultation can be found in the final section of this document.

Section B: Bletchley and the Marston Vale Line - improvements to the existing railway and stations

Why are we proposing this work?

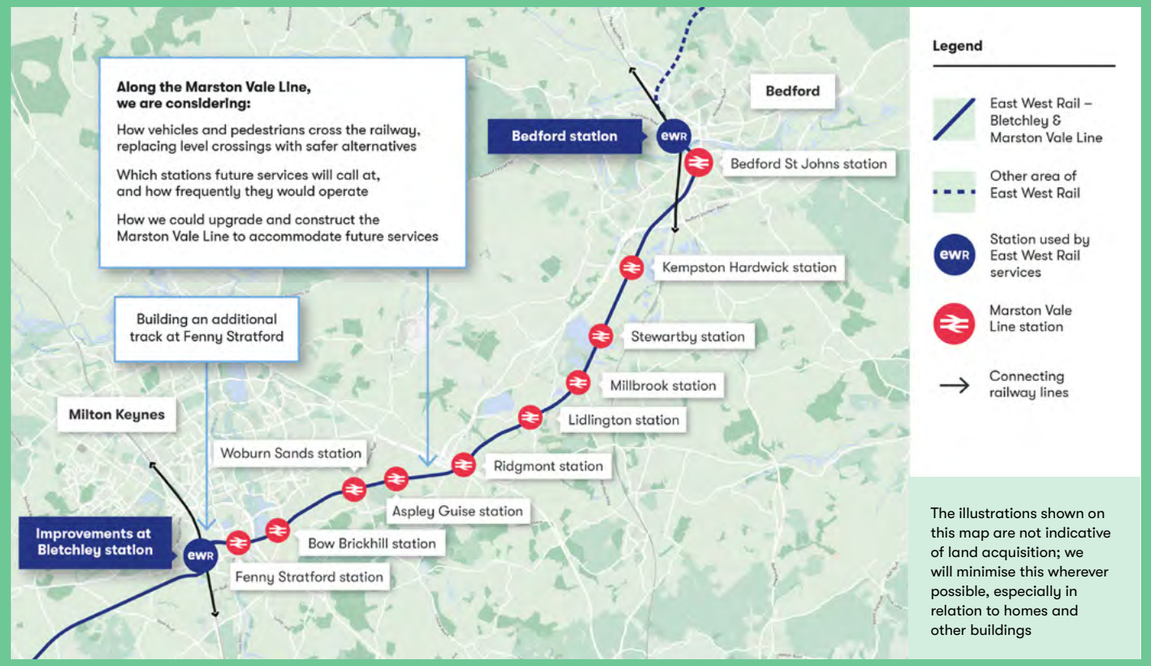
It is not possible to introduce a fast, reliable and frequent service between Oxford and Cambridge without making a significant investment in the Marston Vale Line.

The line, which runs between Bletchley and Bedford, was first built in 1846 and continued to operate after the original Varsity Line closed in the 1960s. In recent years, the Marston Vale Line Community Rail Partnership has worked proactively to engage local people with the railway and promote the rail line. The underlying infrastructure however has not seen significant investment for decades, and the communities it serves have changed and grown considerably over that time.

Why investment is needed:

- The signalling system is obsolete and has, at times, been unreliable. This has led to train services having to be suspended on numerous occasions
- The existing infrastructure means the line is slow, with just one train an hour, taking 42 minutes to do 16 miles – an average speed of just 25mph.
- The stations are all unstaffed, and are very constrained in terms of the facilities and experience they can offer passengers, whether that's warm waiting areas, drop off points, or car and bike parking.
- Many of the stations have amongst the lowest usage on the national network. Indeed, three of the ten stations see fewer than 40 passengers on average each day.

Section B
proposals map



East West Rail represents a once in a generation opportunity to provide a reliable, frequent train service for communities along the Marston Vale Line. Communities have an opportunity to protect the line, whilst making sure it meets the needs of local people today and into the future. This opportunity would result in a railway line sitting at the heart of an integrated transport network, making journeys from door to door both quicker and more convenient.

What are the developing plans for this section?

We have identified two ways this part of the line could be upgraded:

Concept 1: The existing hourly stopping service would continue to serve all Marston Vale Line stations, with a new limited-stop EWR service calling at two stations – Woburn Sands and Ridgmont – four times an hour.

The hourly stopping service at intermediate stations would enable a change onto a faster EWR train at either Woburn Sands or Ridgmont, for connections to Oxford and Cambridge.

The ability to change to the faster EWR services at Ridgmont will make journeys from some intermediate stations to either Bletchley or Bedford quicker. Two EWR Oxford - Cambridge trains and two EWR Bletchley - Cambridge each hour would call at Woburn Sands and Ridgmont. These trains would take 22 minutes to travel from Bletchley to Bedford. The hourly-stopping service would need to wait in additional sections of track known as 'passing loops' to allow faster EWR trains to overtake so may need to run more slowly, and the timetable would be modified. Most of the stations would see minimal - if any – upgrades, but the station at Ridgmont would need to be relocated to enable passing loops to be built and Bedford St Johns station would also be relocated.

Concept 2: There would be five new merged stations on the Marston Vale Line – all five would benefit from at least two EWR services every hour, and some would have four. This would mean more communities have access to more frequent and faster services, direct to more locations.

Two EWR stopping trains would run every hour between Bletchley and Cambridge calling at all five stations. These trains would take 27 minutes to travel from Bletchley to Bedford instead of 42 minutes today. In addition, two EWR Oxford-Cambridge trains would call at Woburn Sands and Ridgmont. These trains would take 22 minutes to travel from Bletchley to Bedford.

These services would replace the current hourly stopping service and the ten existing intermediate stations would be merged, creating five new modern stations with better facilities in locations more suitable for existing needs and to ensure that the right transport infrastructure is in place for the growth that is already starting to happen in the local area. Some residents would need to travel a little further to their nearest station, but EWR are developing plans for improved pedestrian and cycle routes, as well as working with local stakeholders on better public transport connections.

Given the increased frequency and speed of the service, even for those who do have to travel further to the station, overall journey durations are likely to be shorter or at least the same as they are today. Upgraded and new stations would be designed from the start to ensure that onward transport – whether by bike, car, bus or on foot – is convenient and minimises disruption by reducing traffic in constrained village centres.

Merged stations have been considered in the following locations:

- Woburn Sands station relocated a short distance to the west of the current station
- Ridgmont station relocated between the current Aspley Guise and Ridgmont stations (in a similar location to that required by Concept 1)
- Lidlington station relocated a short distance to the east of the existing Lidlington station
- Stewartby station relocated between the current Stewartby and Kempston Hardwick stations
- Bedford St Johns station relocated a short distance to the south or west

All of these stations on the line would benefit from direct connections east between Bedford and Cambridge. Woburn Sands and Ridgmont would have direct services to stations west – like Oxford or Bicester, whilst for the others this would be a short interchange.

Whilst we have identified these five locations by working with local stakeholders, we are open to your suggestions for alternative merged station options, provided the overall number does not increase beyond five in Concept 2.

Both of these concepts are viable options. We recognise that despite its reliability challenges and low usage, the existing service is important for some members of the community. It would though be a missed opportunity if we were not to at least consider the alternative, given the potential benefits it offers to local residents both today and for the future.

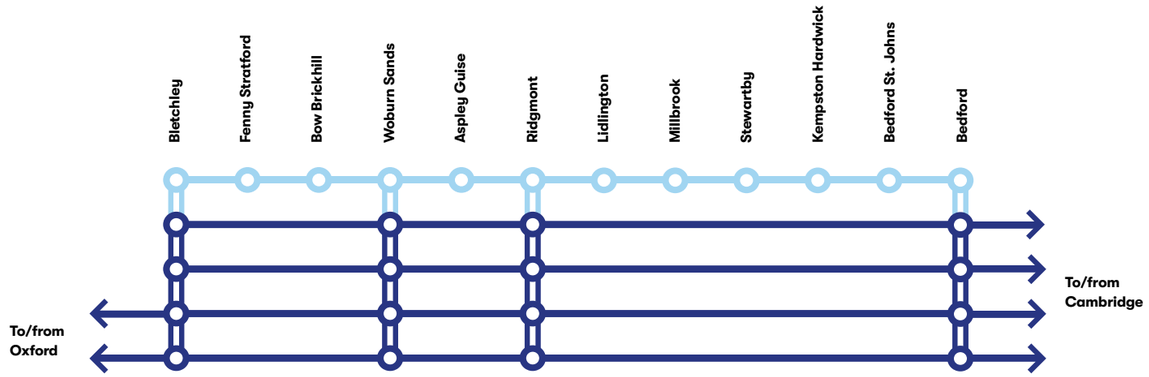
Both of these concepts would require:

- Changes to the way vehicles and pedestrians cross the railway, replacing level crossings with safer alternatives to enable a faster, more frequent and more reliable train service
- Improvements to the track, including the reinstatement of a second track between Bletchley and Fenny Stratford
- A range of improvements to Bletchley station, which would become an important hub with the extension of East West Rail's services to Bedford and Cambridge
- Consideration of how to carry out the required upgrades, which could involve the suspension of the existing train service between Bletchley and Bedford, during the construction period.
- When we have reviewed responses in relation to these concepts, we will prepare designs in greater detail for each of them, along with assessments of their effects. We will share these at our statutory consultation.
- Details about where to access more information and how to respond to this consultation can be found in the final section of this document.

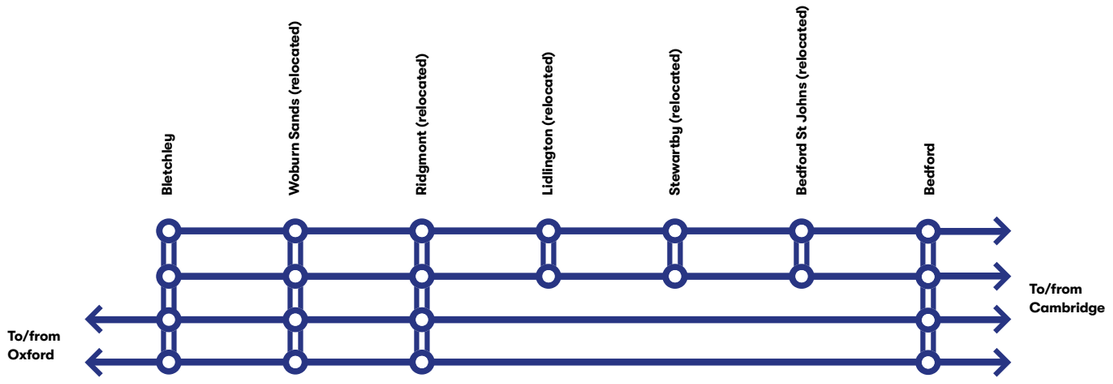
When we have reviewed responses in relation to these concepts, we will prepare designs in greater detail for each of them, along with assessments of their effects. We will share these at our statutory consultation.

Details about where to access more information and how to respond to this consultation can be found in the final section of this document.

Concept 1: Retain the existing hourly service that stops at all current intermediate stations, and introduce fast limited-stop Oxford – Cambridge services alongside it.



Concept 2: Provide more people easier access to more frequent, faster and direct trains at five merged stations on the Marston Vale Line.



Section C: Bedford - improvements to the existing railway and a new section of railway

Why are we proposing this work?

Bedford station is already an important transport hub in the region. The introduction of East West Rail services means the station and supporting infrastructure need a range of improvements to make sure sufficient capacity is available for trains to be punctual, so that customers receive the service and experience they should expect.

In restoring a vital rail connection between Oxford, Bedford and Cambridge that was lost to local people in the last century, these improvements can support local stakeholders' future aspirations for more jobs, prosperity and growth in this lively, diverse town.

In particular, improvements to Bedford station would contribute to the regeneration of the area immediately around the station, and for the centre of Bedford.

Section C proposals map

The illustrations shown on this map are not indicative of land acquisition; we will minimise this wherever possible, especially in relation to homes and other buildings

Bedford St Johns station

This would need to be accompanied by changes to the track alignment around Bedford St Johns station, and the relocation of that station itself, as the existing track and station would currently be unable to accommodate proposed East West Rail services. In addition, new tracks are needed north of Bedford alongside the existing Midland Main Line to connect the new East West Rail platforms to the section of new railway that would connect Bedford to Cambridge.

What are the developing plans for this section?

- **Bedford St Johns station**: a new Bedford St Johns station on a different section of track into Bedford, either closer to the hospital or to the south west of the existing station, close to the Ampthill Road – Elstow Road Pedestrian Link bridge.
- **Bedford station:** building new track to Bromham Road Bridge. The existing station building is proposed to be demolished and a new station building would be built.
- **North Bedford**: building new track in between Bromham Road Bridge and Clapham Green, creating the new connection to Cambridge.

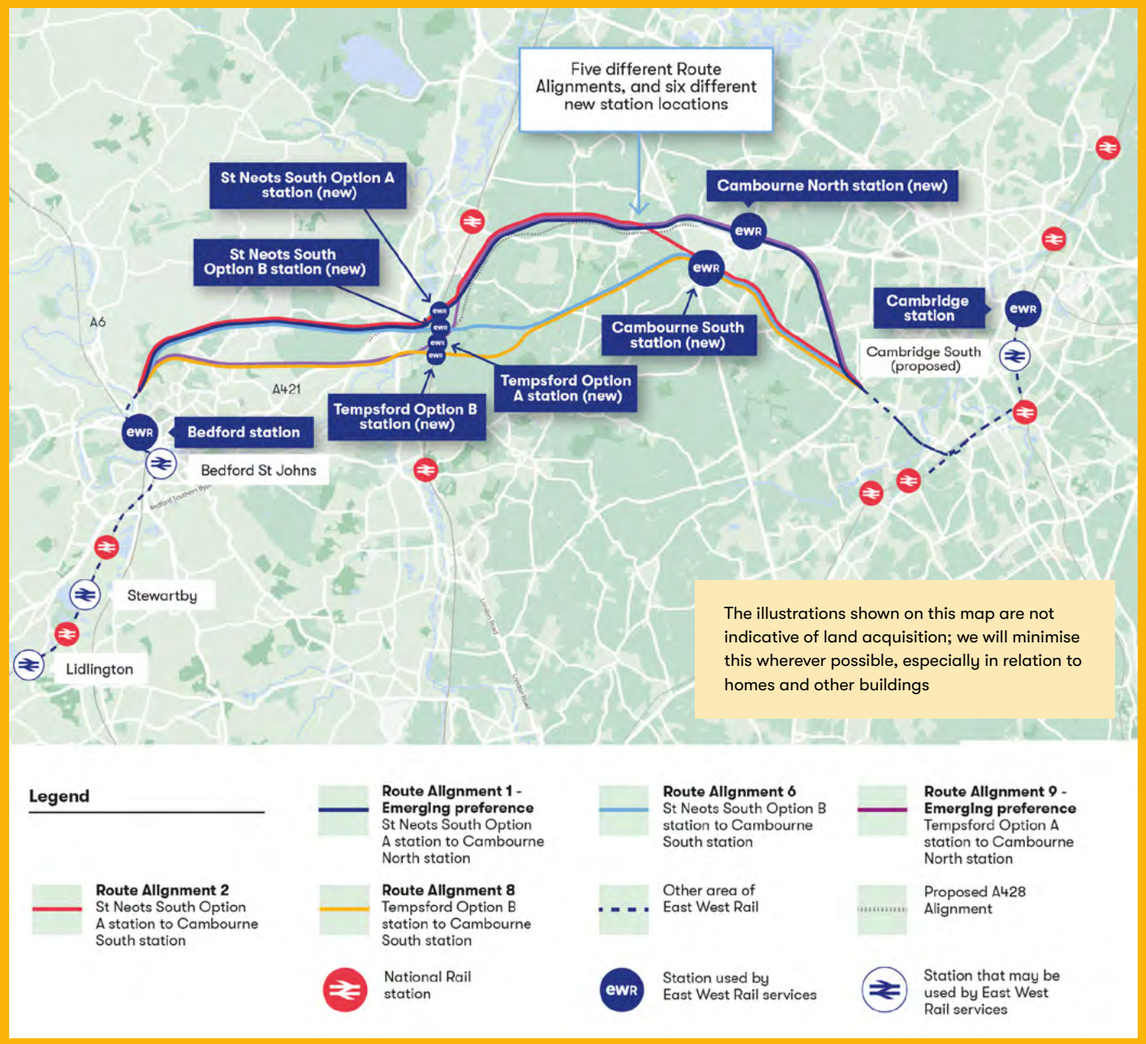
Details about where to access more information and how to respond to this consultation can be found in the final section of this document.

Section D: Clapham Green to The Eversdens - new railway and new stations

Why are we proposing this work?

East West Rail would bring faster and better long term connectivity to communities between Bedford and Cambridge. People living in Cambourne and in the area between Sandy and St Neots would benefit from new stations and a potential new connection to the East Coast Main Line (London-Edinburgh).

Section D
proposals map



The new line would also support local aspirations to create more jobs and develop homes for people in areas along the route. Businesses would find it easier to start up and grow locally as they would benefit from better access to suppliers, customers, and skills as more people will be able to afford to live and work in the area.

For the benefits of East West Rail to be realised, a new section of railway needs to be built between Bedford and Cambridge. In early 2019 we consulted on five potential route options for this section of new railway.

In January 2020, following consideration of responses to our previous consultation, further design development and environmental assessment, the Government announced our preferred route option (route option E). The preferred route option defines the area within which the actual railway line maybe located.

Following the announcement of the preferred route option, we have now identified and assessed potential route alignment options, as well as considering possible station locations on each of these route alignments.

Alignments 1 (dark blue) and 9 (purple) have been identified as emerging preferences for a number of reasons:

- Joined up infrastructure – they benefit from a shared 'travel corridor' with the proposed A428 Black Cat to Caxton Gibbet Improvement Scheme, meaning they already cover a route used regularly to connect people to places
- New housing and communities – we believe that there is more potential for new homes and communities in the area (particularly for Cambourne North compared to Cambourne South)
- Economic growth – alongside the development of new housing, a new station could bring economic growth to the community, creating more jobs and prosperity
- Value for money – they are expected to be less costly to deliver than other alignments connecting to the same station pairings.

Details about where to access more information and how to respond to this consultation can be found in the final section of this document.

What are the developing plans in this area?

Construction of a new railway - nine options have been identified and we have shortlisted these to five options for the route alignment of East West Rail. Out of these five options, we have identified two emerging preferences

A new station in the area near Tempsford or St Neots, which could connect East West Rail with the East Coast Main Line

A new station either north or south of Cambourne

Section E: Harlton to Hauxton - new railway and a new railway junction

Why are we proposing this work?

We propose that the new railway between Bedford and Cambridge enters Cambridge from the south via the West Anglia Main Line.

We need to build a new railway junction to join the proposed new railway to the existing Shepreth Branch Royston line (the King's Cross line), which then connects to the West Anglia Main Line at the Shepreth Branch Junction to the north east.

Construction of the new junction would allow fast and reliable East West Rail services to run into Cambridge connecting communities and businesses across the Oxford to Cambridge Arc.

What are the developing plans in this area?

- New railway infrastructure south west of Cambridge including a new railway junction near Harston and Hauxton.

Details about where to access more information and how to respond to this consultation can be found in the final section of this document.

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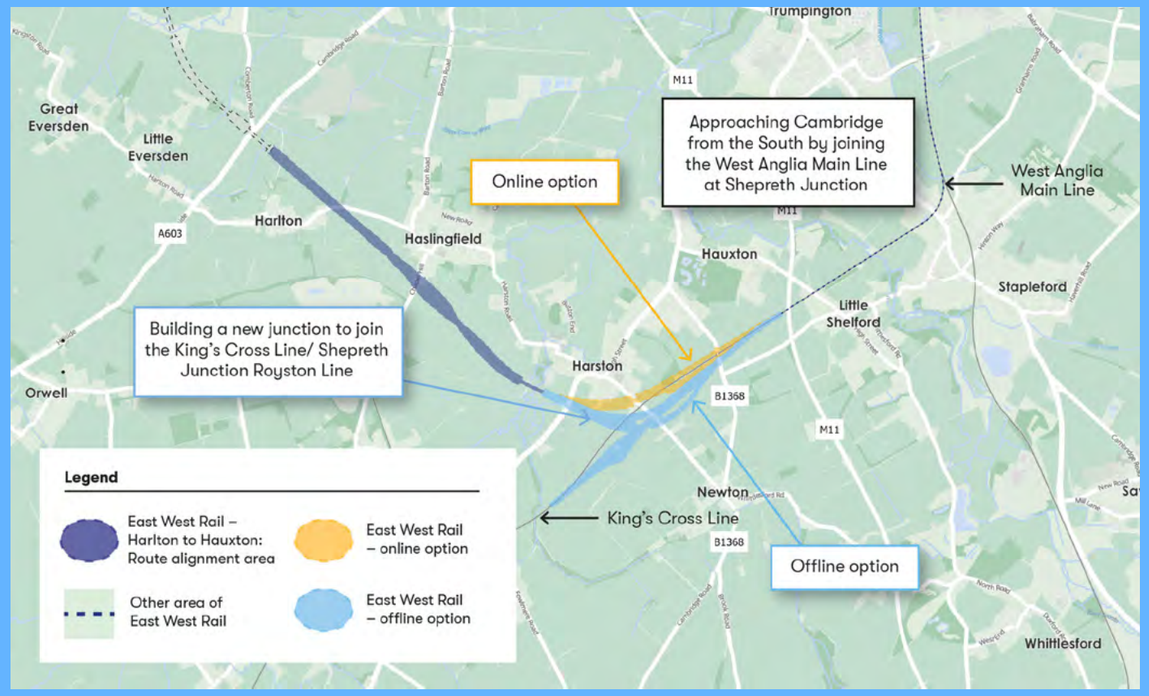
Section E
proposals map



Section F: Great Shelford to Cambridge station - improvements to the existing railway and Cambridge station

Why are we proposing this work?

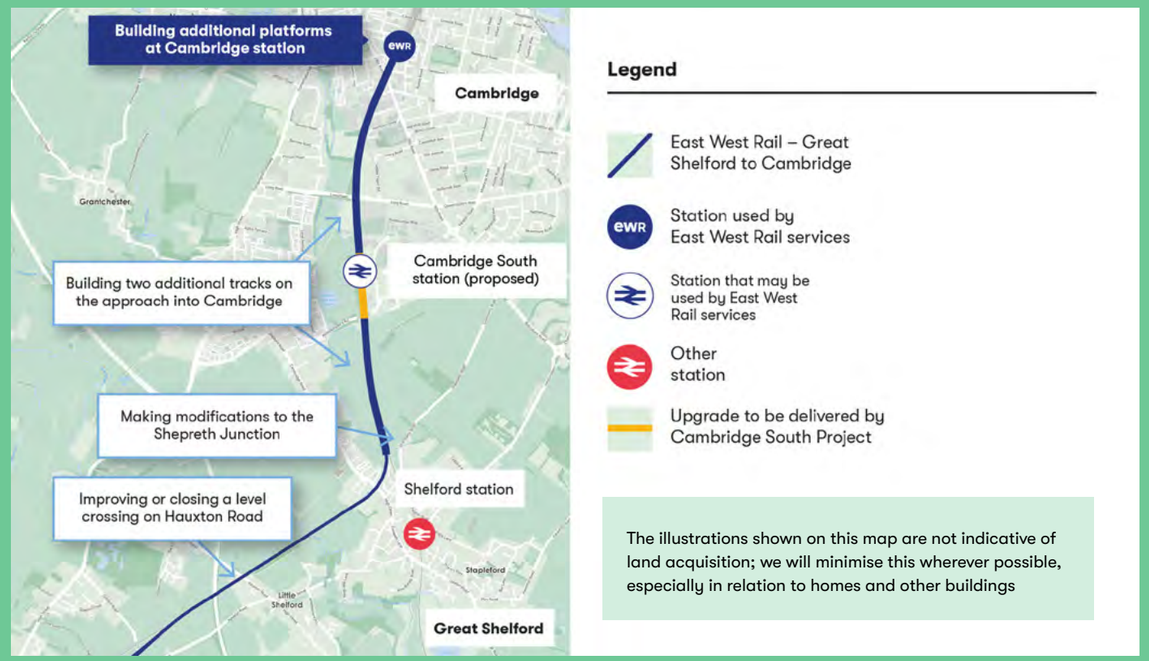
To enable the existing railway between the new Hauxton Junction and Cambridge to accommodate the additional East West Rail services we need to make a number of changes to the railway. Changes are also required at Cambridge station to help with the anticipated increase in passengers.

What are the developing plans in this area?

- Improvements or closure of a level crossing on Hauxton Road, between Little Shelford and Hauxton
- Maintaining the existing two track railway of the Shepreth Branch Royston line (the King's Cross line) to Shepreth Branch Junction
- An additional two tracks in some areas to create four tracks on the West Anglia Main Line between Shepreth Branch Junction and Cambridge station, and modification of Shepreth Branch Junction
- Additional platforms at Cambridge station and the opportunity to stop at the proposed Cambridge South station.

Details about where to access more information and how to respond to this consultation can be found in the final section of this document.

Section F
proposals map



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The approach to Cambridge

Before we chose our preferred route option in January 2020, we assessed whether we should take a northern approach into Cambridge. At that stage, and taking into account the response to consultation, our assessment showed that a northern approach to Cambridge wouldn't perform as well as our options that approached Cambridge from the south.

Due to the fact that we are now looking at options with a station north of Cambourne, which could facilitate a northern approach to Cambridge, we have updated the information relating to our previous conclusion that the additional route length on the northern approach would lead to higher costs and lower passenger benefits.

Our updated information on approaching Cambridge from the north, including a station at Oakington and a junction at Milton, is contained in the Technical Report.

The updated information continues to show the reasons why a southern approach remains our preference in terms of value for money, benefits and impacts on communities, and in terms of operating the railway.

Details about where to access more information and how to respond to this consultation can be found in the final section of this document

Cambridge

02.

Introduction to the Project and the story so far

Introduction to the Project and the story so far

The East West Railway Company (EWR Co) is asking communities, representatives and stakeholders to give us comments and thoughts on developing plans for East West Rail.

This consultation focuses on two different aspects:

- Customer experience and railway operations
- The infrastructure including route alignments, stations and level crossings.

This non-statutory consultation is your opportunity to tell us about your expectations for customer service and what you think about the options we have identified. We are consulting you while plans are still at a formative stage, so we can create the best possible rail service for the communities the line will serve. There will be a further opportunity for you tell us your views as the Project progresses.

This section provides information on:

- East West Rail (EWR), including the benefits of the Project
- East West Railway Company (EWR Co), including our objectives and the objectives for the Project
- Some of the factors that we are taking into account
- Background to this consultation.

East West Rail — creating meaningful connections

The vibrant mix of rural and urban communities between Oxford, Milton Keynes, Bedford and Cambridge blend beautiful landscapes and a rich cultural heritage with globally renowned centres of education, business, technology and an increasingly dynamic business scene, which together contribute around £111 billion to the national economy each year.

It's a fantastic place to live and work, but a lack of good transport links is limiting people's ability to enjoy everything the area has to offer - from easy opportunities to travel between home and work, to days out with friends and family.

East West Rail is a once in a generation opportunity to provide frequent, fast and reliable rail links for communities between Oxford, Milton Keynes, Bedford and Cambridge, connecting people with the things that matter most to them.

By making it cheaper and quicker to get around, the new railway line would create a range of opportunities for people right across the area and help to spread prosperity across the UK, supporting opportunities for economic growth in towns and cities outside London.

Skateboarder, Oxford

02. Introduction

The full proposed East West Rail link

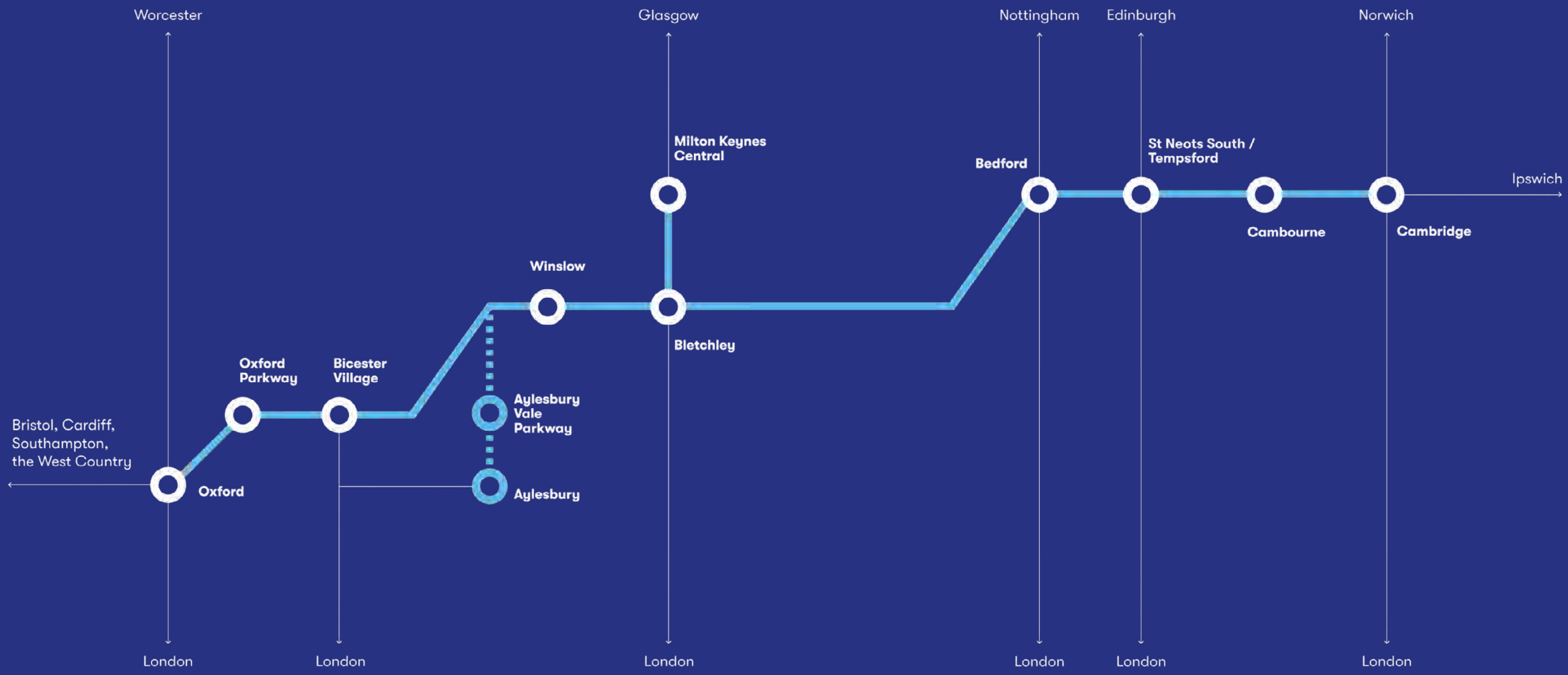


Figure: EWR route between Oxford and Cambridge

The benefits

EWR will create opportunities for people right across the area by:

Making it cheaper and quicker to get around – connecting people to their jobs, homes and families, as well as businesses to their employees, suppliers and customers

Supporting new homes to make the area a more affordable place to live and work

Making it easier for businesses to create more jobs and increase productivity

Achieving biodiversity net gain, and aiming to deliver a net zero carbon railway as part of our proposals.

As well as improving quality of life for people locally, it would help the local economy by:

Making places more appealing for people wanting to start and grow businesses – attracting and retaining the best talent in the region, while encouraging new investment to support the economy

Spreading prosperity across the UK – creating growth for towns and cities outside of London. The National Infrastructure Commission estimated that creating these transport links and supporting the area between the world class education hubs of Oxford and Cambridge was worth nearly £80bn extra each year to the British economy1.

[1] https://nic.org.uk/app/uploads//Economic-analysis-Cambridge-Econometrics-SQW-report-for-NIC.pdf

EWR is being delivered in stages, and trains are already running between Oxford and Bicester. The next stage will extend EWR further north and east, allowing services to run between Oxford and Milton Keynes. Creating this link requires the reinstatement of an out of use railway line between Gavray Junction at Bicester and Bletchley including a new bridge over High Speed 2 (HS2). In 2020, permission was granted for the railway between Bicester and Bletchley and major civil engineering construction work has commenced.

Construction of the Bletchley to Bedford improvement and Bedford to Cambridge routes are expected to begin by 2025, with the ambition of trains running the full length of the line between Oxford and Cambridge by the end of the decade.

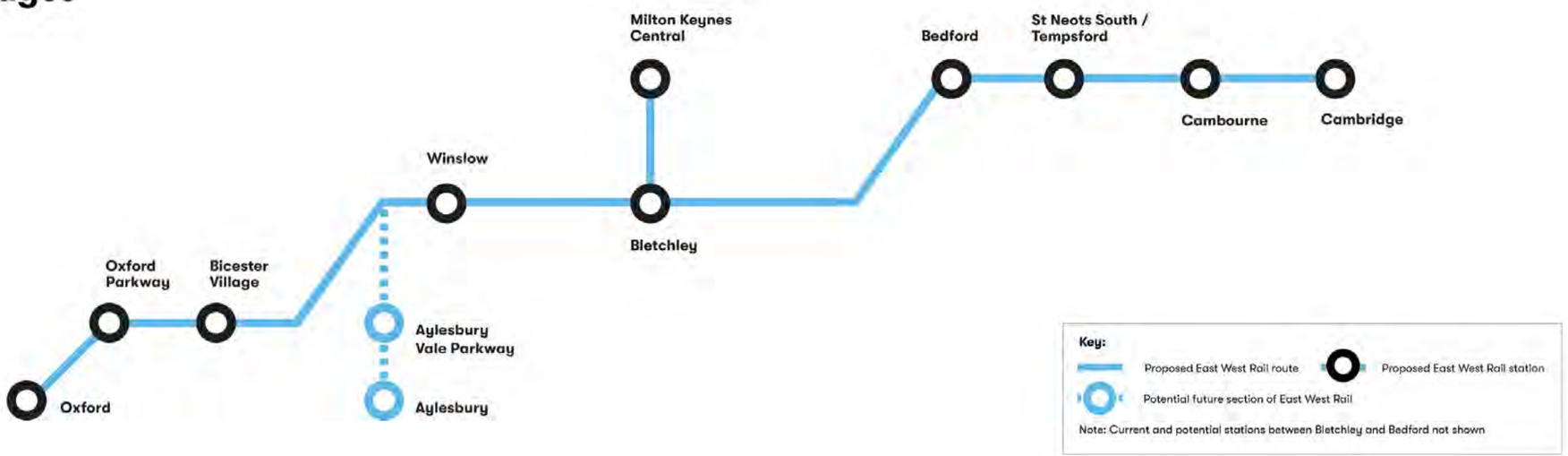
EWR services would be introduced in three Connection Stages (CS) as follows, in each direction:

- CS1: two passenger trains per hour between Oxford and Milton Keynes
- CS2: an additional two passenger trains per hour between Oxford and Bedford
- CS3: extension of the two passenger trains per hour between Oxford and Bedford to Cambridge and an additional two passenger trains per hour between Bletchley and Cambridge.

Bedford River Festival

02. Introduction

The Three Connection Stages

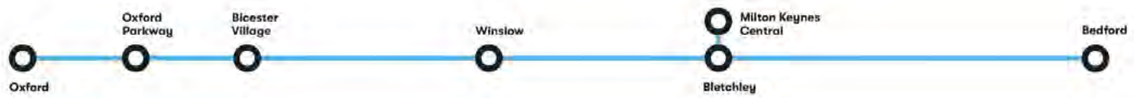


Connection Stages

Oxford to Bicester (current)

Connection Stage 1: Oxford to Milton Keynes

Connection Stage 2: Oxford to Bedford



Connection Stage 3: Oxford to Cambridge

Figure: EWR services

In order to run the services shown on this map and build the associated infrastructure, we must first go through a detailed planning, consultation and approvals process. To learn more about this process, please refer to the diagram on page 58.

Consultation Document 2021

What is East West Railway Company?

East West Railway Company Limited (**"EWR Co"**) is responsible for developing the East West Rail Project (**the "Project"**) and was created to plan a railway with customers and communities at its core. We are passionate about developing a railway which best serves people living and working between Oxford, Milton Keynes, Bedford and Cambridge.

The Sponsor of the Project is the Secretary of State for Transport who, through his Department, owns the Project and has overall responsibility for its success. We were set up by the Secretary of State for Transport in 2018 with the following role:

- To improve existing rail lines, including additional upgrades to the Marston Vale Line; and between Bedford and Cambridge – to plan a rail link to complete the proposed line.

We are integrating the above two sections of the Project to get the very best results for all the communities we will be serving right the way from Oxford to Cambridge.

We have a mission to innovate and to challenge the status quo in the rail and construction industries, leading to more efficient and cost-effective Project delivery, and a better experience for passengers. Our distinctive outlook and commitment to doing the right thing for our customers and local communities runs through everything we do and every decision we make.

Oxford-Cambridge Arc Spatial Framework

The Government has announced that it is developing a spatial framework that will guide planning and transport policy in the Arc. It aims to publish proposals in 2021 and 2022. We will be contributing to the production of this framework and will take account of any policies that emerge when we prepare our application for a Development Consent Order.

East West Rail Company — our ambition

Creating connections:
not just laying down steel and concrete, we are focused on designing a railway that is most likely to create connections between local communities that will support the economic growth and prosperity in the area

Delivering for the community:
at a very early stage in the design of the route between Bedford and Cambridge, we asked communities for comments and points of view on the new route alignment. Your responses were an important factor in the decision on a preferred route option. The route alignment proposals we are now asking you to comment on have been developed following the feedback we received from communities, stakeholders and local authorities.

Protecting and enhancing the environment:
our proposals have been developed with environmental considerations at the forefront. Rather than being an after-thought, we used environmental data as a fundamental factor in deciding which route options to consider. Our communities can have confidence that these proposals have been developed to support ambitions for EWR to increase biodiversity and respect important environmental and heritage sites in its area. In particular, international and/or European sites have been considered as part of our assessments and no such sites are to be directly impacted by any of the alignment options

Delivering better results through innovation:
taxpayers must have confidence in our ability to manage every aspect of the Project, from the way we work with communities, to our financial controls, to the delivery methods we will use. We're committed to seeking out the most appropriate way to deliver this Project, and for the communities EWR will serve.

Project objectives

Following a study by the National Infrastructure Commission, the Department for Transport established strategic objectives applying both to elements of EWR between Oxford and Bedford and from Bedford to Cambridge. The strategic objectives set by the Department for Transport and stated in the consultation in relation to route options were as follows:

- Improve east-west public transport connectivity by providing rail links between key urban areas (current and anticipated) in the Oxford-Cambridge Arc

- Stimulate economic growth, housing and employment through the provision of new, reliable and attractive inter-urban passenger train services in the Oxford-Cambridge Arc

- Meet initial forecast passenger demand

- Consider and plan for future passenger demand, making provision where it is affordable

- Contribute to improved journey times and inter-regional passenger connectivity by connecting with north-south routes and routes beyond Oxford and Cambridge

- Maintain current capacity for rail freight and make appropriate provision for anticipated future growth

- Provide a sustainable and value for money transport solution to support economic growth in the area.

The Project objectives are made up of two documents: the Sponsor's Requirements (set by the DfT) and the Programme-Wide Output Specification. Section 3 of the Technical Report sets out more information on these documents and how they have been applied to the Project objectives. You can also read the documents, which are appended to the Technical Report.

The most relevant aspects of these objectives for this Consultation Document are:

- **Safety:** this is of vital importance to passengers, staff and those who live near or interact with the railway. It means we need to look at all aspects of the railway, including the safety of level crossings

- **Environment:** in terms of sustainability, the Arc's attractive natural and built environment is one of its key assets. Travelling by train is one of the most carbon-efficient ways to travel and it is intended that EWR will help to reduce road congestion and pre-emptively to avoid increases which may otherwise be associated with new housing or economic development, in favour of a more sustainable form of transport, as a result of quicker and more reliable journeys over long distances, encouraging people to switch their journeys from cars to rail. EWR Co has taken a proactive approach to environmental considerations and put them at the core of the Project.

  We will:

  - aim to deliver a net zero carbon railway, in line with existing and developing net zero carbon policy, legislation and commitments at a global, national and local level
  - achieve biodiversity net gain in the construction of East West Rail
  - consider the importance of environmental sustainability in our activities and the decisions we make
  - follow the environmental mitigation hierarchy and implement a decision-making process which seeks to 'design out' potential environmental impacts

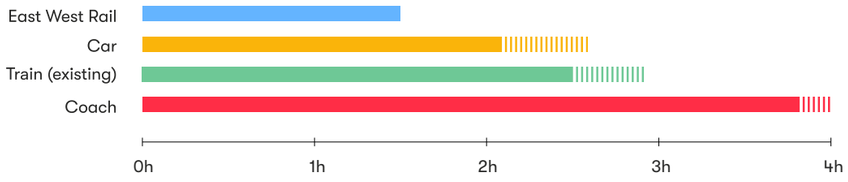
- **EWR services:** introduced in the Connection Stages (CS) set out above.

EWR Co aims to develop an attractive, predictable 'clock-face' service at regular intervals. This means that trains would call at most stations at the same minutes past each hour all day, and that train services would be evenly spaced as far as possible. Our indicative target maximum times are:

Figure: Indicative target maximum journey times

For comparison, travelling from Oxford to Cambridge by rail takes almost three hours and requires passengers change trains between London stations, which involves crossing London using another mode of transport, such as the London Underground or London Buses. This adds to the risk of delay or cancellation as well as being inconvenient, pushing people away from sustainable transport and onto already congested roads.

Figure: Oxford to Cambridge minimum and maximum journey time comparison by mode



EWR Co aims to provide a reliable service and to protect EWR services and customers from the impact of wider railway disruption. To minimise disruption, EWR services will run on dedicated track, separated from the rest of the railway network wherever possible, whilst maximising connectivity.

- **Connectivity:** the Project would connect to several north-south routes, including provision for a potential new passenger interchange with the East Coast Main Line (ECML) at either Tempsford or St Neots (as a new station, not replacing the existing station)

- **Customer experience and stations:** we aim to set new standards for our customers, and this ethos has been embedded into designing and developing the Project. You can read more on this in the customer experience and railway operations section of the consultation

- **Powering EWR services:** we are aiming to deliver a net zero carbon railway and will be considering conventional and emerging technological solutions for powering trains when all EWR services are fully operational. This could mean we operate conventional electric trains powered by overhead electric lines, or it could be that we use a different technology to help lower our carbon emissions: that decision hasn't yet been taken

- **Freight on EWR:** we are designing the railway to be able to accommodate freight, which means that the railway will be capable of freight operation. How much freight would use the railway is not yet known as this is subject to government policy and market demand and is likely to be affected by interventions on other parts of the rail network. We are studying the potential demand, the capacity considerations on EWR infrastructure, and the potential constraints elsewhere on the network. This work will inform the approach to the next stage of design and the assessment of the environmental impacts of the Project. Our current considerations on freight are available in more detail in the Technical Report. Further information, including how we will avoid or reduce impacts from freight, will be shared during the next consultation.

Other considerations about the Project

Supporting property owners

We are aware that some of the proposals we have put forward in this document could ultimately affect people's homes, businesses and farms. In developing our proposals, we aim to minimise the negative impact this may have on people's land and property and mitigate any impacts we cannot avoid.

While we don't yet know for certain which land or property will be needed, we know that publishing our plans could potentially affect people needing to sell their land or property. This is a matter we take seriously. Although it is not a legal requirement at this stage of the Project's development, we are consulting on a discretionary purchase scheme, the Need to Sell Scheme, that, if introduced would aim to support owner occupiers in this position. The proposal is that the scheme be introduced when the preferred route alignment for the railway is announced later this year, but it is subject to further consideration, including of any responses to consultation.

We would like to hear your views on these proposals for a Need to Sell Scheme and whether this is the right way for us to support those whose land and property could be affected by the publication of our plans for East West Rail. Full details on how you can respond and the deadline for responses, will be available in our Guide to the proposed Need to Sell Scheme, available on our website: **www.eastwestrail.co.uk**.

The proposed Need to Sell Scheme would be aimed at owner occupiers who can show that they have a pressing need to sell their home, farmhouse or small business but are unable to do so except at a substantially lower price as a result of the EWR project at the point of Preferred Route Alignment.

We will confirm the decision on the proposed scheme as part of our consultation response.

Being a good neighbour

Since taking over the Project, we have identified ways in which we can reduce the disruption of building the railway on local communities. We are already working with Network Rail and the supply chain on CS1 to improve the relationship between the project and local communities. On CS2 and CS3 we are committed to building respectful and supportive relationships with communities from the very start. Our approach to construction and further details of potential impacts from the construction process will be explained during the next consultation. We will also prepare a Code of Construction Practice for the Project, which will explain the steps we will take to control the effects of construction on local communities and the environment. As part of this, we will be working with your local representatives and community groups to make sure we're building EWR not just in the right place, but in the right way too.

Depots and stabling

Stabling and depot facilities are required along the route alignment to facilitate the maintenance and storage of infrastructure and rolling stock. Three types of stabling or depot site have been identified which are detailed on the next page.

Infrastructure maintenance depot(s)

One or more depots could be needed to store materials, equipment and rolling stock (trains) needed to maintain the railway. These depots would need to be connected to the railway. When identifying suitable depot locations, potential impacts on local communities and the environment will be considered, as well as operational requirements.

Train maintenance depot

This depot is needed to carry out maintenance of the passenger trains for the railway. The current assumption is that Bletchley train maintenance depot, an existing depot facility, will be modified and used as the main depot location for the EWR fleet of trains. Currently, the scope of work for the depot is being jointly designed, developed and delivered with West Midlands Trains, the depot facility owner, and it is assumed that this will be carried out using existing powers available to Network Rail and the depot facility owner (known as permitted development rights).

Train stabling location(s) or sidings

Stabling locations – also called sidings - provide space to store trains when they are not in use, such as overnight and for carrying out light servicing activities. These stabling locations would need to be connected to the railway and have provision for various activities, for example interior and exterior cleaning of the trains, refilling water tanks and servicing the train toilets. When identifying suitable locations, potential impacts on local communities and the environment have been taken into account, as well as operational requirements.

Currently, we believe that the most suitable location for stabling EWR trains is in the general Cambourne area. We would try to avoid impacts on the existing community when we are deciding where this would go. Further details will be shared during the next statutory consultation when the alignment of the Project in that area has been established.

Telecommunications

Telecommunications masts are likely to be placed along the new railway between Bedford and Cambridge. As design progresses EWR Co will be mindful of the impacts of telecommunication masts and would consider environmental issues and local communities when choosing where to place them. Details about the placement of telecommunications masts will be provided at the next consultation.

Highways, PRoW and Private Access Roads

We have considered the impact on highways, public rights of way (PRoW) and private access roads as part of the design and assessment of the Route Alignment options for the new railway between Bedford and Cambridge. We are seeking to maintain existing highway connections wherever feasible. We are not proposing to provide any new level crossings and are aiming to close as many such crossings as possible in the areas we are proposing works to the railway. PRoWs provide important connections for local communities and we are considering alternative solutions if crossings are closed.

We are continuing to consider our approach for maintaining highways and public rights of way which cross the existing railway between Bicester and Bedford. Options are outlined in chapters 6 and 7 of the Technical Report. We will consult in more detail on proposals for individual highways, public rights of way and private access roads at the statutory consultation.

Statutory Utility Works

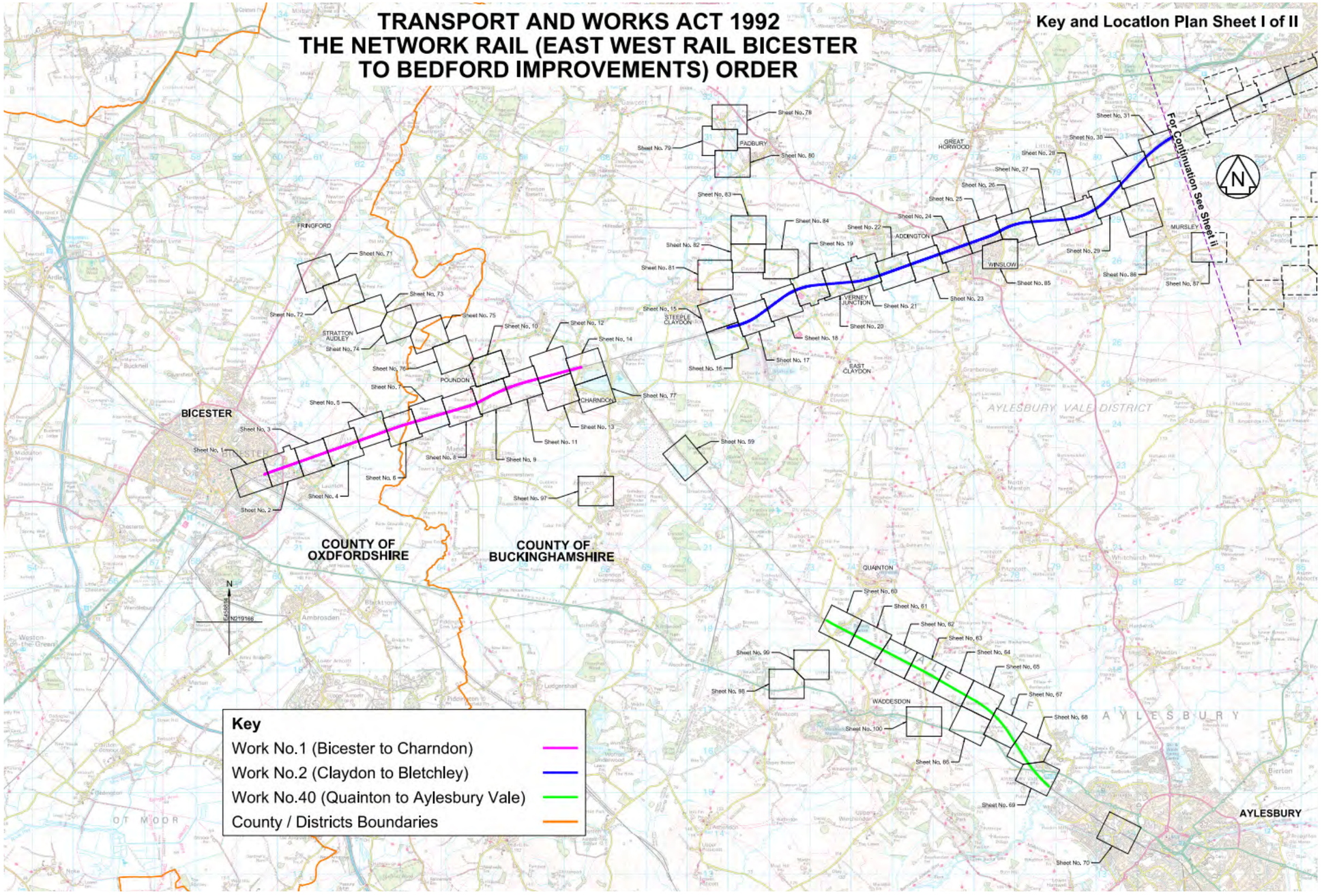
It is inevitable that in constructing a Project of this type, existing underground and overhead services (such as electricity, gas, water and communications) will need to be relocated. This work is usually, but not always, undertaken in advance of the main construction works. We will engage with utility companies with the aim of minimising any disruption that may be associated with utility works.

Designs for any utility diversions that may be required to deliver the Project will be discussed and agreed with the relevant utility companies and will be set out at the statutory consultation where appropriate.

London Road level crossing

02. Introduction

Developing East West Rail



Oxford to Bicester, Bletchley and Bedford

In 2012, the Government authorised major improvements to the railway and local stations between Oxford and Bicester under a Transport and Works Act Order (TWAO). This work was completed in 2016 and Chiltern Railways began running services from Oxford through to London via Bicester in 2016.

In 2018 Network Rail applied for powers to develop the Bicester to Milton Keynes and Bedford section of the Project. In 2020 the Government granted a further TWAO to authorise the construction, operation and maintenance of the necessary infrastructure to run extra services between Oxford and Bedford. Construction has started on this section. However, changes and additions to exisiting infrastructure is needed in this area to allow future EWR trains to run all the way through to Cambridge. These proposed developments on the Oxford to Bicester and Bletchley to Bedford lines will form part of our application for development consent and are included as part of this consultation.

You can find out more about these plans in chapter 4 of this document.

Figure: Works already consented through a Transport and Works Act Order

Consultation Document 2021

East West Railway Company 49

Bedford to Cambridge

Previous consultation

This is the second public consultation on the section of proposed railway line between Bedford and Cambridge. In 2019 we asked for comments on five proposed route options. Over 3,500 people came to our consultation events, and almost 7,000 people sent consultation responses via email, online or by post.

We have summarised how people responded to the last consultation and explained how we have taken these responses into account in our ***You Said We Did*** report.

Please go to **www.eastwestrail.co.uk/the-project/consultations** for the full list of documents that were available as part of the 2019 consultation and more information on how to access them.

Preferred route option E

Feedback from communities and stakeholders during the 2019 consultation was central to our decision to recommend route option E as the preferred route option. This route option, linking existing stations in Bedford and Cambridge with communities in Cambourne and the area north of Sandy, south of St. Neots, received the most support from respondents. Route option E was ranked highest in four of the five main factors we used to assess the options:

- **Benefits for transport users:** improving connectivity to towns across the region, with new links to Thameslink, the East Coast Main Line and the West Anglia Main Line

- **Environmental considerations:** the route via Cambourne allows us to avoid the most environmentally challenging areas and avoid potential direct impacts on irreplaceable or sensitive environmental features, including heritage assets, with good opportunities to increase biodiversity

- **Supporting economic growth:** supporting regeneration plans, improving sustainable transport options and integrating with local public transport schemes

- **Supporting new homes:** with the potential to support local aspirations for, and the delivery of, new homes and communities in areas including Bedford, between Sandy and St Neots, and at Cambourne.

Route option E also delivers the best value, returning the most benefits to the taxpayer.

Further details on route option E are included in the Technical Report that accompanies this consultation.

You can access all of the previous consultation and route option announcement materials, including an overview of the responses to the 2019 consultation, on the Community Hub area of our website: **www.communityhub.eastwestrail.co.uk/bedford-to-cambridge-preferred-route-option.**

Figure: Preferred route option E

The approach to Cambridge

The selection of a preferred route option following the previous public consultation was based on a combination of fifteen assessment factors, which included transport user benefits, capital and operating costs and performance against the objectives for East West Rail. The decision to enter Cambridge from the south was based on engineering, operational, economic, and environmental reasons, which were described in the Preferred Route Option Report. We have continued to keep the decision to prioritise a southern approach to Cambridge (as opposed to a northern approach) under review, especially in light of new information.

As described later in this consultation document, emerging route alignments between Bedford and Cambridge have been identified. Of these, some adopt a route to the north of the alignment for the proposed A428 Black Cat to Caxton Gibbet improvement scheme and serve a potential new station to the north of Cambourne. The location of the station north of Cambourne would be more-or-less equidistant from Cambridge Station, whether taking the route by a northern and southern approach – about 24 km. Because of this, we have looked at an alignment that could approach Cambridge from the north and how it compares to a southern approach from the south in relation to topics. This is described in appendix F to the Technical Report.

In engineering terms, a northern route from Cambourne to Cambridge is feasible, although it is expected to be complex and expensive. A northern route would cross the newly constructed A14 trunk road to the west of Girton, which at this location is an eight-lane dual carriageway. This would therefore require a substantial bridge structure. Other bridge structures would be required - the Technical Report describes further structures that may be necessary.

An additional station might be provided at Oakington to the east of Northstowe, but this area is low-lying and forms part of a flood plain so the station and its approaches would necessarily be elevated. Whilst there would be an opportunity to provide a multi-modal interchange, this emphasises that the area is already well served by public transport, for example the guided busway. Soon after the station, the railway passes over the guided busway which could also drive the need for the station to be elevated. A junction with the West Anglia Main Line (WAML) would be located north of Milton and it too sits in a floodplain. The route into Cambridge would be via the WAML railway, a two-track line which would need to be upgraded to a four-track line to accommodate the additional EWR services. This would necessarily require some property demolition and the widening or replacement of several substantial structures, including the A14 bridge at Milton and a new bridge over the River Cam.

Cambridge North station would also need to be modified to accommodate the additional lines. The WAML corridor between Milton and Cambridge is more constrained than a southern approach as it is an urban area with properties against the railway boundary and highway crossings with adjacent properties.
We have considered environmental effects of the northern and southern approaches to Cambridge at a level sufficient for comparison purposes. Our analysis to date indicates that the southern approach is

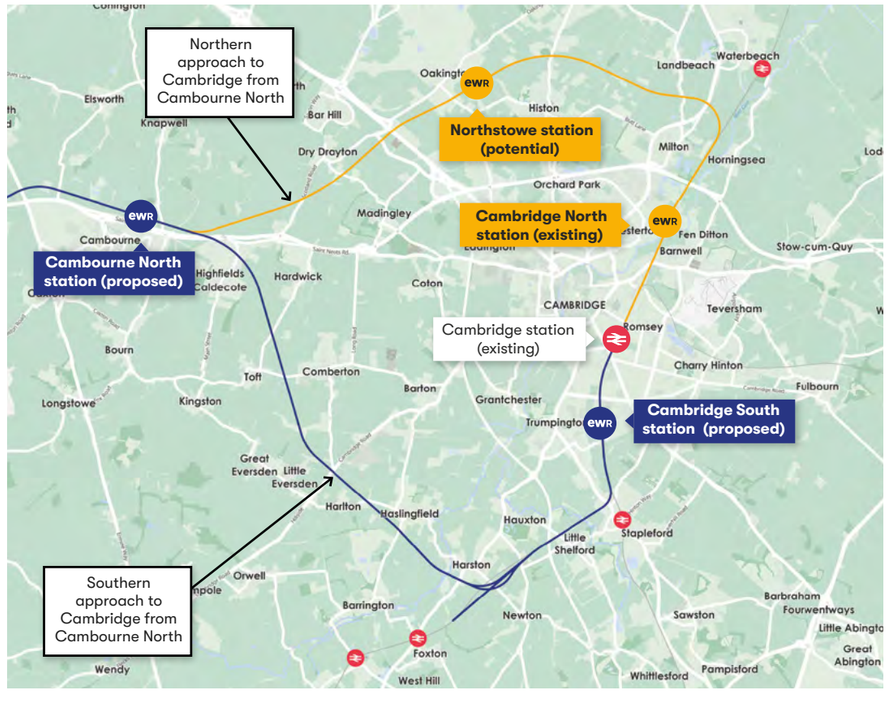


Figure: Map of approach to Cambridge

closer to some ecological and heritage designations, particularly the Wimpole and Eversden Woods SAC. We are confident that impacts on the SAC are capable of being mitigated as part of the design of EWR, meaning that this does not differentiate between the two. However, we will keep this under review.
Conversely, impacts on the environment in terms of property acquisition clearly favour the southern approach due to the predicted number of demolitions that would be required. There are approximately 40 residential and commercial properties that would be likely to require demolition for the northern approach as opposed to five for the southern approach.
We also consider and take account of the potential impacts for other environmental topics. This includes potential impacts to priority habitats, the historic environment and water resources.
Also, due to the general topography of a northern approach to Cambridge, and the need to cross both roads and flood zones in this area, the railway is expected to be elevated in locations, for example on viaducts or embankments, which would be likely to result in visual impacts and greater need for importing fill, which would also be taken into account.

Economically and operationally, a northern approach to Cambridge does not provide the same level of benefits as a southern approach

and is less able to satisfy the overall objectives of EWR. In comparison with services entering Cambridge from the south, which in all our assessments are assumed to call at the new Cambridge South station which is being developed to serve the planned biomedical campus in the south of the city, the northern approach would be slower and more complicated. This is because, assuming that EWR services should call at Cambridge South, then EWR services entering Cambridge from the north would need to turn back at the new Cambridge South station, which would also need to be modified.

Furthermore, services on a northern approach utilising the EWR lines to travel further east to Norwich and Ipswich could not do so without reversing manoeuvres at Cambridge station and/or without the construction of further infrastructure to enable these onward journeys. To travel eastwards from the north a new railway chord (connecting track) would need to be constructed at Coldham's Common or Ely. Such construction at Coldham's Common is likely to require a special parliamentary procedure. Furthermore, although the length of railway for northern and southern options is similar (the northern route is around one kilometre longer), journeys to Cambridge from the north would take longer due to any extra time spent at a stop at Oakington for Northstowe.

In terms of service provision and the benefits of unlocking housing development, the additional benefits of a station at Oakington are small as the guided busway already serves this area with a frequent service to Cambridge. The growth of housing in this area is not dependent upon EWR as planning permission has already been granted and there is limited potential for additional housing land to come forward for development.

A qualitative assessment of capital costs for a northern route has been completed and the extent and complexity of the structures, poor/wet ground conditions between Northstowe and Milton, loss of residential and business properties, and modifications to the railway and existing stations are expected to make this solution more expensive than the southern alignments proposed by EWR Co given that the alignment lengths are similar for each approach.

Overall, we consider that a northern route into Cambridge remains less attractive than a southern route to the city, validating earlier decisions made by EWR Co and reinforcing the case for the proposals described in the Technical Report.

The information in this Consultation Document addresses emerging route alignments in and around route option E, with a southern approach to Cambridge. However, in selecting a preferred route alignment for the approach to Cambridge we will also take into account comments about other approaches such as the one described above and in Appendix F to the Technical Report.

Share your views

1. **Because EWR alignments closer to north Cambridge are now being considered, we have looked again at whether we were right to have favoured Route Option E and approaching Cambridge from the south as we confirmed after our last consultation. In particular, we have reviewed our previous assessment that concluded approaching from the south was the better option taking account of a Cambourne North Station outside of Route E to see if we would have made a different decision. We consider that the advantages of approaching Cambridge from the south continue to support this conclusion and that a number of challenges remain for a northern approach even with a Cambourne North station. We'd welcome your comments on our assessment.**

You can share your thoughts with us on this question by filling in our online feedback form at **www.eastwestrail.co.uk/feedback.**

You can also send us your views by emailing us at **consultation@eastwestrail.co.uk** or writing to us at **Freepost EAST WEST RAIL.**

Alternatively, you can request a paper copy of the feedback form to be sent to you by:

- Ordering it online at **www.eastwestrail.co.uk/documents**
- Emailing us at **contact@eastwestrail.co.uk**
- Calling us on **0330 134 0067**.

Development consent for the works

The EWR Project has been designated as a nationally significant infrastructure Project (NSIP). This means that instead of applying for planning permission from a local authority, permission is given at a national level by the Government; this is called a Development Consent Order (DCO).

EWR Co is committed to early and ongoing engagement with the communities we serve. For this reason, we are asking for your thoughts on our plans while they are still at an early stage, so we can use your responses alongside continuing environmental, economic and technical studies to help us shape various aspects of the Project. However, there is a statutory, legal requirement to consult on proposals before applying for a DCO.

After the further, statutory stage of consultation, we will submit our application for a DCO to the Government. Our application will then be considered by a single inspector or a panel of inspectors from the Planning Inspectorate who will make a recommendation to the Secretary of State for Transport on whether the application should be approved. The final decision to grant or refuse the DCO application for the Project would then be taken by the Secretary of State in line with the National Policy Statement for National Networks.

You can find more information about the Planning Inspectorate on the National Infrastructure Planning website: **www.infrastructure.planninginspectorate.gov.uk**

The route to consent, construction and operation

The Project will move through a number of development stages and approvals before we start the next phase of improvement works on the railway between Oxford and Bedford and construct the new railway between Bedford and Cambridge. At every step we seek to involve people so we can deliver the right connections for you and your community.

The dates below are included as a guide. We are always looking for ways to open your new railway sooner. As the team progress with designing and planning the railway we will know more about how long the different stages will take. We promise to be realistic about the timings and will share new dates with you if the programme changes.

A note on the maps used in this consultation

In November 2020, we published an expansive set of initial baseline maps in an interactive feature on the EWR Community Hub. These maps use data from national and local government agencies such as the Environment Agency, Natural England and local authorities, as well as from sources such as the Woodland Trust, and outline some of the complex factors which the EWR Co team has been taking into consideration. We have used the same information as is shown on these maps in identifying where best to route the proposals for EWR.

Where options are shown in this consultation, indicative areas in which works may be carried out are sometimes shown. This is so that you can make as informed a response to the consultation as possible. However, the areas marked are not the final boundaries of land that might be affected.

Stage 01

Choosing the Preferred Route Option

(Bedford to Cambridge only)

- Public consultation
- Analysis and design
- Preferred Route Option chosen

We held a non-statutory public consultation, talking with people living and working across the route corridor, elected representatives and many other organisations and interest groups. Using their comments alongside environmental, economic and technical studies we chose a Preferred Route Option.

2019 **Completed**

Stage 02

Developing Route Alignment Options and identifying extra infrastructure between Oxford and Cambridge

- Design and test possible route alignments
- Identify potential additional infrastructure needed to run services between Oxford and Cambridge
- Environmental and land surveys
- Second non-statutory public consultation (this consultation)

In this stage we are consulting on the options we have developed for the Preferred Route Alignment. We are also now considering station locations, starting to survey land, and studying connections with local transport networks. We have also established what further additional infrastructure may be required between Oxford to Bicester, Bletchley and Bedford to allow future EWR trains to run all the way through to Cambridge. This will be included in this consultation.

Your responses to this consultation will help us to choose a Preferred Route Alignment and move the Project into the detailed design phase.

2020/2021

Figure: Stages involved to secure consent and begin construction

Stage 03

Choosing a Preferred Route Alignment and additional infrastructure

- Analysis and design
- Options for additional infrastructure between Oxford to Bicester, Bletchley and Bedford chosen
- Statutory public consultation

We will choose a Preferred Route Alignment between Bedford and Cambridge, and the options for additional infrastructure between Oxford to Bicester, Bletchley and Bedford. We will base this choice on feedback from two previous consultations and continuing environmental, economic and technical studies. It will be presented to the public alongside other parts of the Project, including the proposed design, in a statutory consultation. The information from this consultation will be used to finalise our proposals for the railway. We will also seek the next stage of funding and approval from government.

2021/2022

Stage 04

Securing development consent

- EWR Co submit application
- Planning Inspectorate holds an Examination
- Secretary of State for Transport makes a decision

We submit the proposals to the Secretary of State as part of an application for a “Development Consent Order”. On his behalf, the Planning Inspectorate will carry out a public examination of our application which normally lasts up to six months. People will be able to comment on the application. The Inspectorate goes through a strict process of examination and hearings, before making a recommendation to the Secretary of State on whether our proposals should go ahead. A final decision is usually given within six months of the examination closing.

2022/2024

Stage 05

Construction begins

- Construction begins

Once we’ve complied with any initial conditions or requirements included in the Development Consent Order, the government will consider the full business case for the Project to make the final decision to proceed. Following further conversations with the public and stakeholders, can start to construct your new railway.

2025

If approved and following construction, services will be introduced in three connection stages. To learn more about these connection stages, please refer to the diagram on page 36.

03.

Customer experience and railway operations

03.
Customer experience and railway operations

Shaping customer experience and railway operations

Introduction

This part of our consultation focuses on what you - our future customers - want from your railway experience and how we could deliver that experience through the railway infrastructure, as well as the team, stations and trains.

Currently EWR Co is acting as a Shadow Operator for the railway. This means that we are not currently operating any trains, but we are providing customer and operational insights into the development and design decisions for East West Rail. We are working closely with all stakeholders to deliver the best possible customer experience and we are keen to hear your views.

We are a very different kind of railway company bringing together all the key elements, including both track and train, required to run the service. This unique approach means that our focus on customers is central to every single decision that we make.

We are looking at how to tender contracts to run the railway and deliver the customer experience.

We aim to make decisions regarding the operation of the railway in a way that achieves the best outcomes for customers allowing for as much vertical integration between track and train as possible.

We have been assessing options on how best to do this. We will utilise our independence to challenge conventional thinking when developing the delivery strategy and operational concept for the railway, to maximise the customer experience this railway offers.

EWR involves both a significant greenfield section of new railway and upgrades to existing and disused railway infrastructure, both of which, interact with the existing national network.

The introduction of new services would occur over a period of time, which we are describing as Connection Stages (CS), as different sections of infrastructure are completed.

The Connection Stages are:

- **CS1:** two passenger trains per hour between Oxford and Milton Keynes
- **CS2:** an additional two passenger trains per hour between Oxford and Bedford
- **CS3:** extension of the two passenger trains per hour between Oxford and Bedford to Cambridge and an additional two passenger trains per hour between Bletchley and Cambridge.

Therefore, from both an infrastructure and operational perspective, EWR has some unique characteristics that need to be reflected in how both the delivery and operation are undertaken.

We may choose to work with a customer experience specialist and their remit would cover all of the touchpoints with EWR customers, including: providing information to customers, deployment of customer-facing colleagues (whether on trains, at stations or elsewhere), and the management of customer services at stations, authority to travel fulfilment (ticketing), and the management of passenger journeys during times of planned or unplanned disruption.

By gathering your views and opinions via this consultation, we can ensure we specify the right things when considering this part of our operation, so that we can achieve what customers want from the railway. We want to hear your views - from both individuals and organisations - on the customer experience you would like from East West Rail. This is a unique opportunity for you, as future customers, to share what's most important to you.

What section of the railway does it cover?

We are keen to hear your views on the whole route - from Oxford through to Cambridge, as well as individual areas or stations that will make up the new railway line.

Objectives

We are seeking your views on the ways that we might achieve the best possible customer experience.

Trains will start to run between Oxford and Milton Keynes[2] by 2025, and between Oxford and Cambridge by the end of the decade. The people that this railway will serve are extremely diverse in terms of how they will use the system. The purpose of this part of the consultation is:

- To inform the specification of how EWR will operate
- To help us ensure that the customer is at the heart of the railway and that your needs inform decision making
- To engage and listen through the non-statutory consultation to hear what you think
- To use the feedback to consider how much of a shift is required to meet customers' travel ambitions based on where rail travel is today.

Our key assumptions can be found throughout this document, for example, the frequency of the train service, and what we are considering in terms of the train and station facilities for customer experiences.

The customer experience

We aim to put customers at the heart of our railway, considering your needs in terms of what the overall customer experience and railway operations are. This will help us to optimise the outcome and therefore support the economic and housing potential across the Oxford-Cambridge Arc.

As part of developing the customer experience, we are keeping our minds completely open about what we might be able to offer. As a result, we are looking for feedback on what our customers think would make positive differences to their customer travel experience. When we talk about that 'experience', we are looking beyond the typical, current railway journey, at retail, hospitality, and other areas where great customer experiences are created.

We are considering the customer experience for the Oxford to Cambridge railway in the context of global and cross industry best practice. Considering the customer experience early in the design of the Project means that we can achieve the best possible outcomes. We will use the feedback to inform design of both physical elements, for example stations and trains, and service-based elements, for example operations, timetable, staffing and digital experience.

[2] We may first introduce services to Bletchly in order to demonstrate the reliability neccesary to extend to Milton Keynes

The customer journey

What we describe as the customer journey involves much more than the station and the train. It encompasses:

- Decisions around how you get to the station
- Getting to your final destination after the rail journey
- How you access travel information
- Choices based on value for money
- Decisions regarding inclusivity in terms of accessibility and the broader station experience.

We're considering the end to end journey because we believe that a great experience can drive wider customer benefits such as health and wellbeing, and support for environmental sustainability. Having a customer-focused railway will strengthen the existing and proposed communities along the EWR route, making the Arc a better place to live and work, as well as helping businesses to grow and create jobs.

The overall experience of a customer journey is made up of our train services, station environments, the on-train experience, customer information, ensuring our services are inclusive, staff interactions and how EWR connects with other parts of the customer journey, such as active travel considerations (cycling, walking and running to get to stations).

The following sections are designed to mirror key elements of the overall customer experience, including journey planning, the train service, stations, on-train experience, staff interactions and customer information.

1. Each section outlines what the experience might be – this sets out what EWR Co is already considering about the train service and the customer journey. It asks questions that will inform the way we develop the experience. This includes designing the solutions and working with partners to deliver the services when the infrastructure is built and in operation

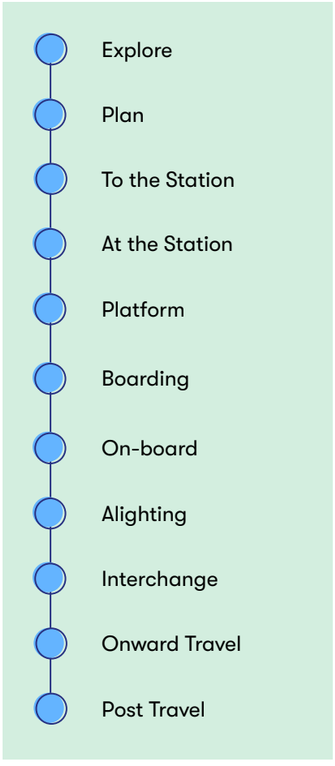
2. How the experience is delivered – this includes some technical and operational elements of the delivery of the service and other factors that are important, for example the trains and systems that will be procured.

Research on customer journeys

To help us gain insights into the expectations of railway customers we commissioned some research and looked at existing industry research. This shows that punctuality, cleanliness and control over information are key to a quality customer experience. Beyond this we know that customers make decisions around travel based on comfort, convenience, health and the time taken for the whole journey, rather than just the part of their journey while they are on a train.

Our research also suggests that there are certain parts of their journey where customers have particular concerns: on the platform, boarding and getting off the train and while changing between types of transport. At other stages of the journey customers are predominantly neutral about the experience currently offered.

Figure: Stages of end-to-end customer journey



Areas of the customer experience we are consulting on

The train service

We are focused on developing services that meet customers' expectations and are integrated with other rail operators and between other transport modes. Stations, the capacity of the railway line (how many services can run on the lines), calling patterns (the number and regularity of stops) and train characteristics will be designed to support customers expectations as the Project develops.

We aim to provide a reliable service, with industry-leading performance. To help protect our train services and customers from the impact of wider railway disruption, the new railway lines will be separate from the existing rail network as far as possible, while maximising connectivity along the route.

We intend to develop an attractive, predictable 'clock-face' service at regular intervals. This means that trains will call at the majority of stations at the same minutes past each hour all day, and that train services will be evenly spaced. We expect trains to operate within the following hours across the route:

Day	Times
Monday – Thursday	06.00 – 00.00*
Friday and Saturday	06.00 – 01.00*
Sunday	07.00 – 23.00

* refers to the following day

We are aiming to provide a frequent passenger service and offer attractive journey times consistent with the wider aims of the Project. These target maximum journey times are in the region of:

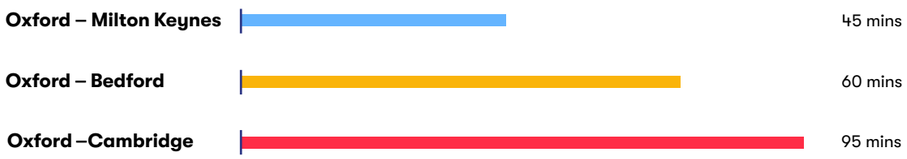


Figure: Target maximum journey times on EWR

Taking this into account, we are interested in understanding some general information on how you might use EWR services and, based on your experience, how rail travel could be improved. Connection Stage 1 will see the introduction of the following services:

- Two passenger trains per hour between Oxford and Milton Keynes

Connection Stage 2 would see the introduction of the following services:

- Two passenger trains per hour between Oxford and Bedford

We expect Connection Stage 3 to introduce services through to Cambridge with new services between Bletchley and Cambridge This could result in the following services:

- Two passenger trains per hour between Oxford and Milton Keynes
- Two passenger trains per hour between Oxford and Cambridge
- Two passenger trains per hour between Bletchley and Cambridge.

Share your views

2. Please share your views on:

- How you might use EWR services - for example for work, to visit friends and family, or to get to leisure destinations?
- Based on your experience of rail travel in the UK what do you think are the main areas that could be improved?
- If you don't currently travel by rail, what are the reasons for this? Is there anything that would persuade you to use rail services?
- Are there ways in which we could help improve your entire journey? For example:
  - How and where you research your trip
  - The actual rail journey itself
  - Getting from your home at the start of the journey, to the point that you reach your end destination
- How could we support our net zero carbon ambitions through the delivery of services to customers? For example, through the design of stations, the trains we operate or through forms of active travel, for example cycling or walking.

You can share your thoughts with us on this question by filling in our online feedback form at **www.eastwestrail.co.uk/feedback.** You can also send us your views by emailing us at **consultation@eastwestrail.co.uk** or writing to us at **Freepost EAST WEST RAIL.**

Alternatively, you can request a paper copy of the feedback form to be sent to you by:

- Ordering it online at **www.eastwestrail.co.uk/documents**
- Emailing us at **contact@eastwestrail.co.uk**
- Calling us on **0330 134 0067**.

Station experience

Stations play a very important role in the customer journey.

Research shows that there is an opportunity to improve customer experience with regards to navigating stations and station platforms, and when boarding trains. Crowding on platforms and worries when train doors will shut can cause customers concern, and these are areas where we are interested in doing something different. New stations provided by EWR may be able to raise standards through addressing this experience and ensuring inclusivity in the design.

This section looks at how the customer journey may be affected by facilities and interactions with staff and services at stations.

We are considering how a rich blend of facilities can contribute to the wider experience and use of stations beyond travel. Several new or enhanced stations are proposed as part of the programme.

We are keen to raise standards to ensure we can provide accessible and inclusive spaces. For example, this means incorporating level access from the street to the platform and to the train wherever possible.

Station surroundings are also important to customers, especially considering the variety of ways in which customers make their way to stations.

We are looking to understand:

- How an increase in road traffic and car journeys to the stations might affect parking at the stations and in surrounding roads. We are considering new technologies and innovation in this area, for example autonomous vehicles, and how this could enhance the end to end customer journey

- Whether new lighting may be needed to improve the stations (such as in the car park, walkways) and any impact this may have on surrounding areas

- How station forecourts and station approaches can be designed to make walking, cycling and bus access as easy and attractive as possible

- How we can minimise the environmental impact of any changes at the stations

- The most appropriate emergency evacuation routes for stations.

More information in relation to these areas can be found in the Technical Report.

East West Rail stations considered in this part of the consultation

This map shows the full range of potential stations served by East West Rail services, some of which may eventually be discounted.

Please refer to the relevent geographic section of the Consultation Document to learn more about the different station proposals in each area.

*EWR services at these stations are dependent on whether Concept 1 or Concept 2 (for train services and stations on the Marston Vale Line) are taken forward

Figure: New and existing stations on the EWR route

Share your views

3. **Please share your views on:**

- Thinking about your experience of stations, how would you like your rail journey to link with other parts of your journey? For example, arriving or leaving the station on foot, by bike, car, or bus
- How can station forecourts and approaches be designed to offer the most convenient access for walking, cycling and bus services?
- What sort of facilities would you like to see at stations – both those that contribute to the overall journey experience, as well as those that might serve a wider community purpose?
- Are there any particularly good examples, either in the UK or abroad, of stations with good facilities or facilities for changing between different transport modes?
- Are there specific factors that you would like us to consider that may improve safety and security at stations?
- How can stations be better designed to manage customer flows around the station environment?
- How can customers be guided through the station experience (particularly during busy periods)?
- How should we ensure inclusivity, for example in terms of accessibility and the broader station experience?

You can share your thoughts with us on this question by filling in our online feedback form at **www.eastwestrail.co.uk/feedback.** You can also send us your views by emailing us at **consultation@eastwestrail.co.uk** or writing to us at **Freepost EAST WEST RAIL.**

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On-train experience

We know that motivations for travelling by train go beyond 'commuting, business and leisure'. Time on board the train is a highlight for many customers, offering precious uninterrupted moments that they can use as they wish.

The type of trains that are used on EWR will be phased across the Connection Stages (CS) with CS1 and CS2 using existing trains on a temporary basis. The longer-term rolling stock solution from CS3 onwards would be decided at a later date. That longer-term solution provides EWR Co with a greater opportunity to consider the rolling stock in the context of the wider customer experience.

Some specific elements that we know are important to customers for the on-train experience are cleanliness, the availability and comfort of seats, enough space for passengers to stand comfortably and for luggage to be stored safely.

Train passing through the countryside

Share your views

4. **Please share your views on:**

- How can we create an engaging environment that suits the unique needs of our customers, for example, working effectively, relaxing or being entertained?
- What types of things should we put in place to create a clean, safe and secure environment for you and your belongings on your train journey?
- What facilities and services would provide the optimal train experience for customers on the EWR route?
- What types of areas/spaces would you like to see on EWR trains beyond seating and standing space?
- What on-train experience(s) might encourage customers to switch to rail from other modes of transport?
- Are there any examples, either from the UK or from abroad, of good seating layouts or on-train facilities?
- How might we consider sustainability in the on-train environment?
- How can the on-train environment support customers' wellbeing throughout their journey?

You can share your thoughts with us on this question by filling in our online feedback form at **www.eastwestrail.co.uk/feedback.** You can also send us your views by emailing us at **consultation@eastwestrail.co.uk** or writing to us at **Freepost EAST WEST RAIL.**

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Interaction with railway customer service teams

Customers associate some of their best train journeys with the positive interactions they've had with railway customer service teams. Members of the team also provide a valuable way of offering additional information and support for those customers who may need it.

Customer information

Customers like to feel in control of their travel experience. They want to know that they can get to their destination in a timely and comfortable way. We understand that delays, unforeseen issues, a lack of information and missing or inaccurate information can not only impact journeys but cause stress to customers.

EWR Team

Share your views

5. **Please share your views on:**

- What types of attitudes and behaviours would you like to see our staff displaying to make your experience with EWR a positive one? This may relate to contact you have online, over the phone, at the station or on the train
- How and where would you like to have access to staff members on your journey and why? Again, this may relate to virtual support or face to face contact.

6. **Please share your views on:**

- What sort of information do you find most critical when you are making a train journey?
- What ways of communicating travel information do you think will be most effective as you arrive at the station or on the train?
- Are there other types of travel information, not directly relating to the train journey, that you think it would be valuable for EWR to provide before or during your journey?
- How could we provide better or different customer information, to help our customers be more relaxed and feel in control throughout their journey?

You can share your thoughts with us on this question by filling in our online feedback form at **www.eastwestrail.co.uk/feedback.** You can also send us your views by emailing us at **consultation@eastwestrail.co.uk** or writing to us at **Freepost EAST WEST RAIL.**

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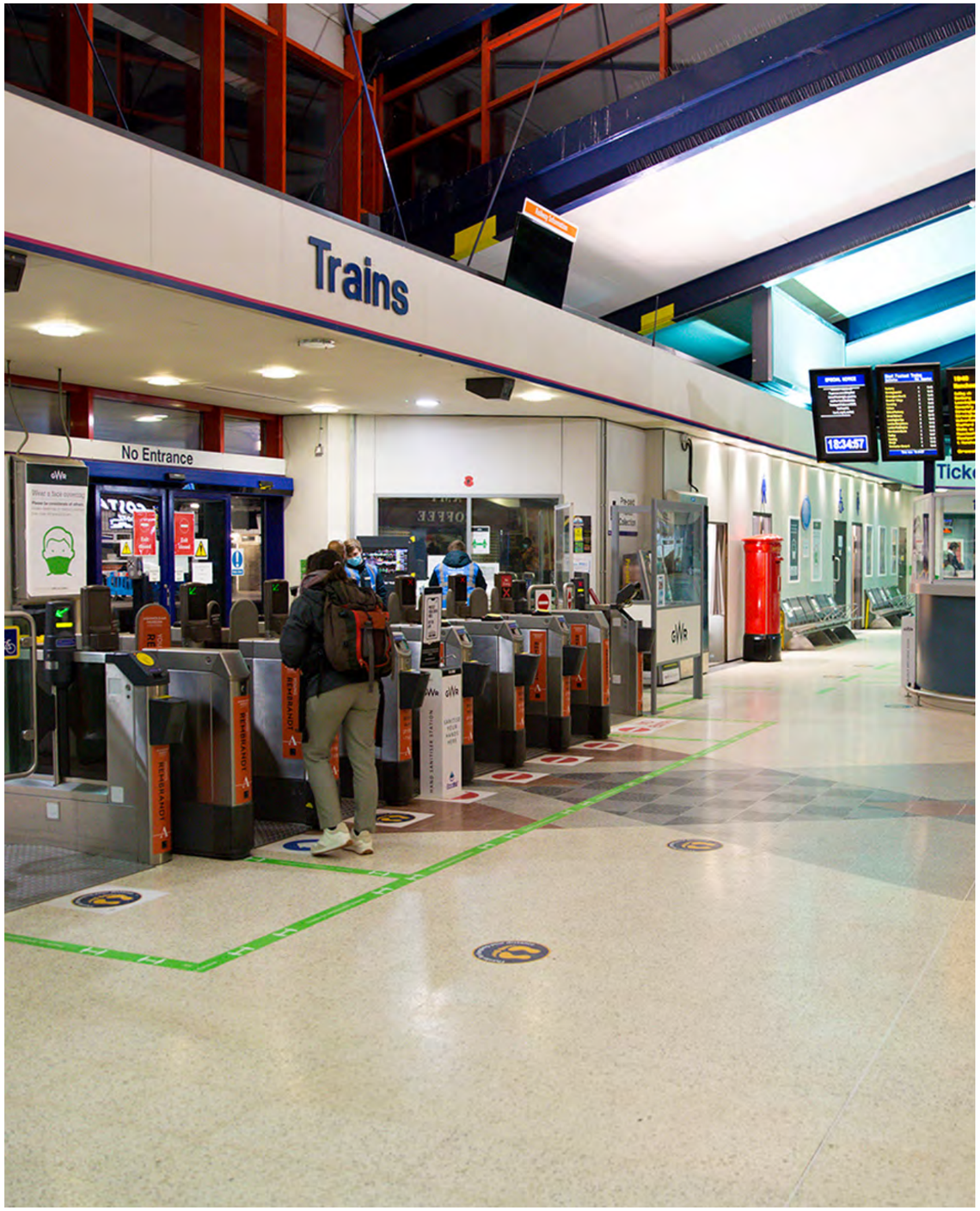


Oxford station concourse

04.

Infrastructure development

04.
Infrastructure development

East West Rail will connect communities using the railway between Oxford and Bedford, which will need improvements to deliver a reliable service, and an entirely new section of railway line between Bedford and Cambridge – the exact alignment of which has not been decided and which is covered in this consultation.

We would like to understand what you think about the developing plans for this critical infrastructure and have divided the EWR route into sections to help focus on the most important questions in each area.

- **Section A:** Oxford to Bicester - improvements to the existing railway and stations
- **Section B:** Bletchley and the Marston Vale Line - improvements to the existing railway and stations
- **Section C:** Bedford -improvements to the existing railway and a new section of railway
- **Section D:** Clapham Green to The Eversdens - new railway and new stations
- **Section E:** Harlton to Hauxton - new railway and a new railway junction
- **Section F:** The Shelfords to Cambridge station - improvements to the existing railway and Cambridge station.

04. Infrastructure development

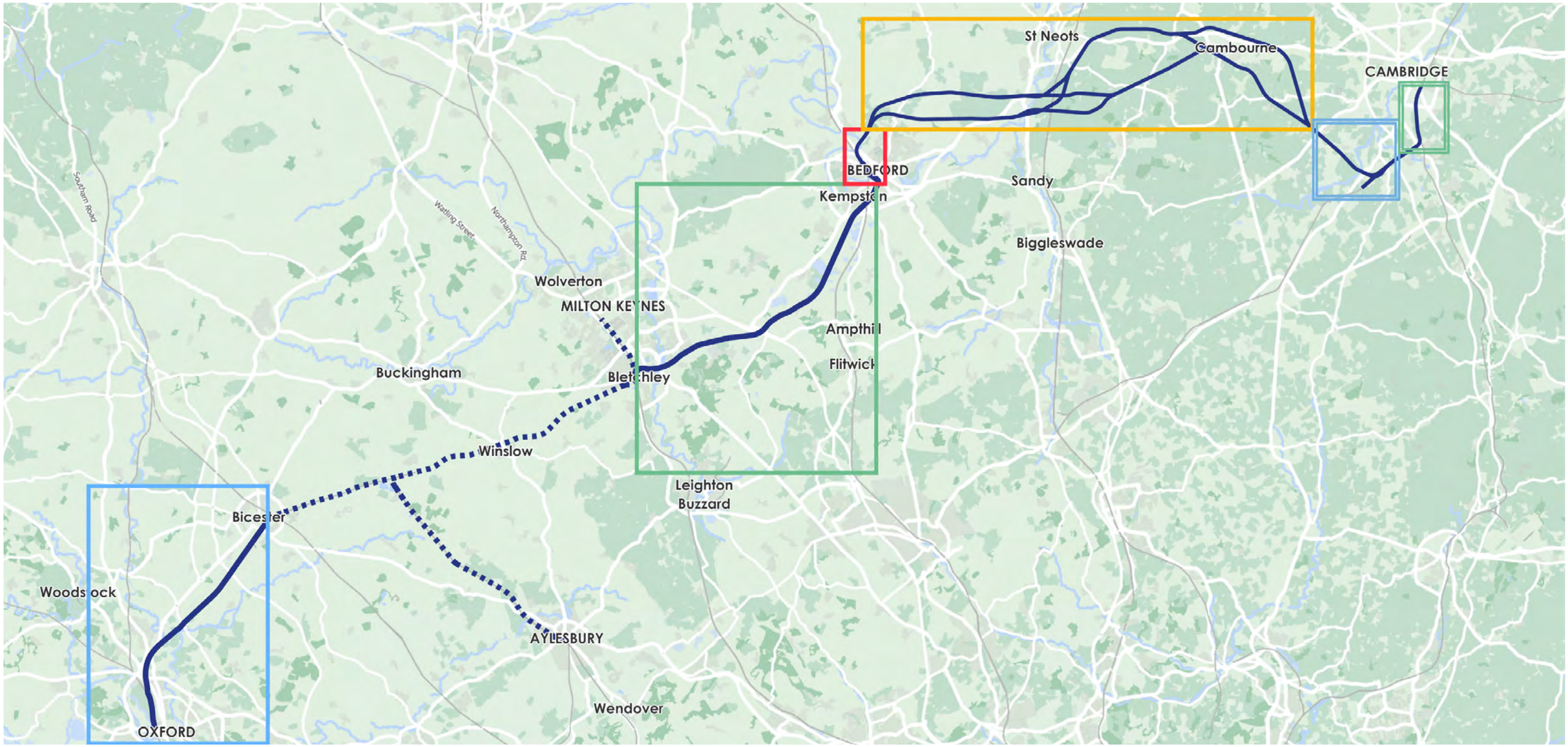


Figure: Sections of the route which we are consulting on

Section A:
Oxford to Bicester – improvements to the existing railway and stations

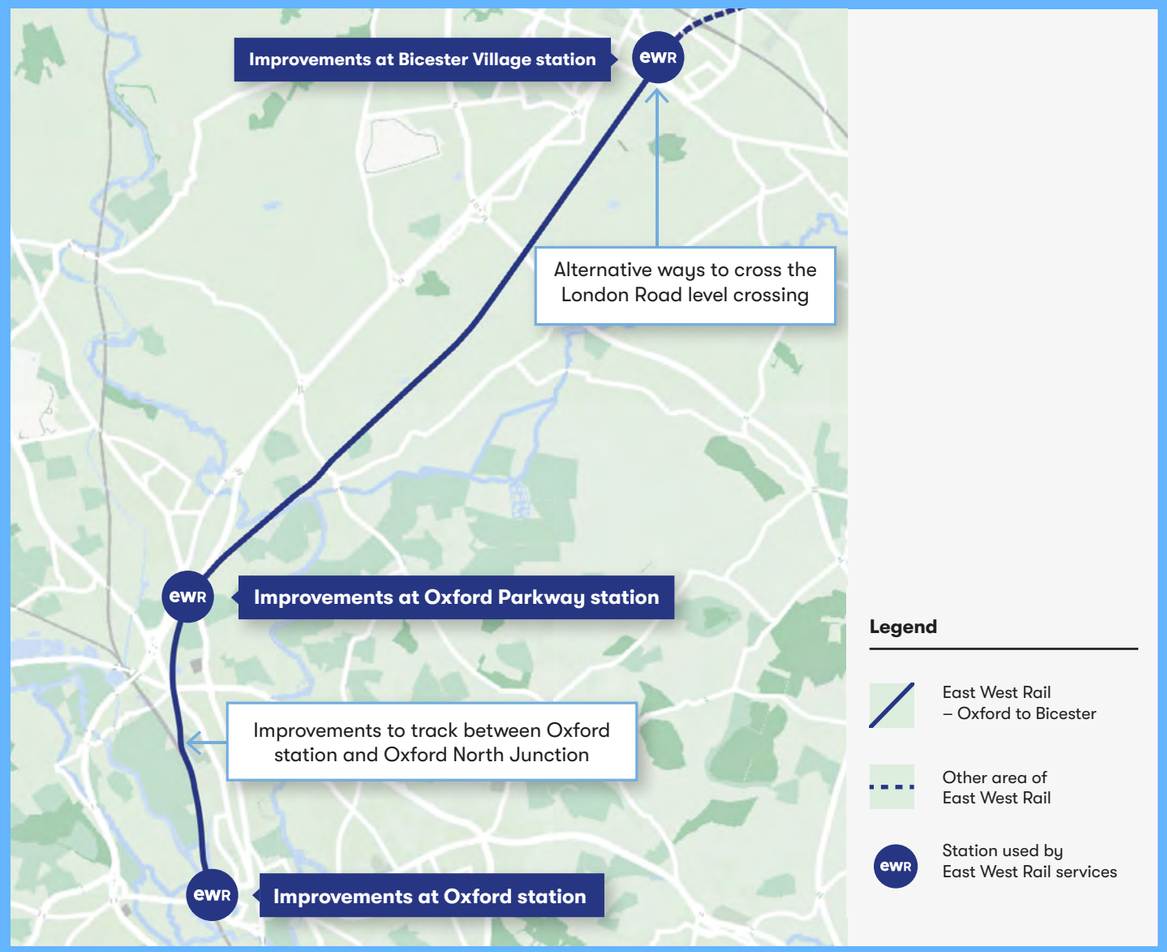


Figure: Section A: Oxford to Bicester

04. Infrastructure development: Section A

The map illustrations shown in this chapter are not indicative of the land acquisition. We will minimise this wherever possible, especially in relation to homes and other buildings.

Introduction

This section of the Consultation Document is about the existing railway between Oxford and Bicester. It explains our options and proposals for:

- The Oxford station area and approach to Oxford station to the north
- Infrastructure supporting Oxford Parkway and Bicester Village stations.

Oxford station area

Why do we need to do something?

In 2018/19 over eight million passengers started or finished their train journey at Oxford station, and a further 500,000 people changed trains at this station.

To accommodate the new East West Rail services between Oxford, Milton Keynes, Cambridge and intermediate stations in between, East West Rail needs to make improvements to Oxford station and some of the track to the north of the station. This work is needed to ensure passengers can enjoy regular, reliable and punctual train services.

We are keen to hear your views on customer experience and station facilities. Please see chapter 3 for more details.

Oxford station

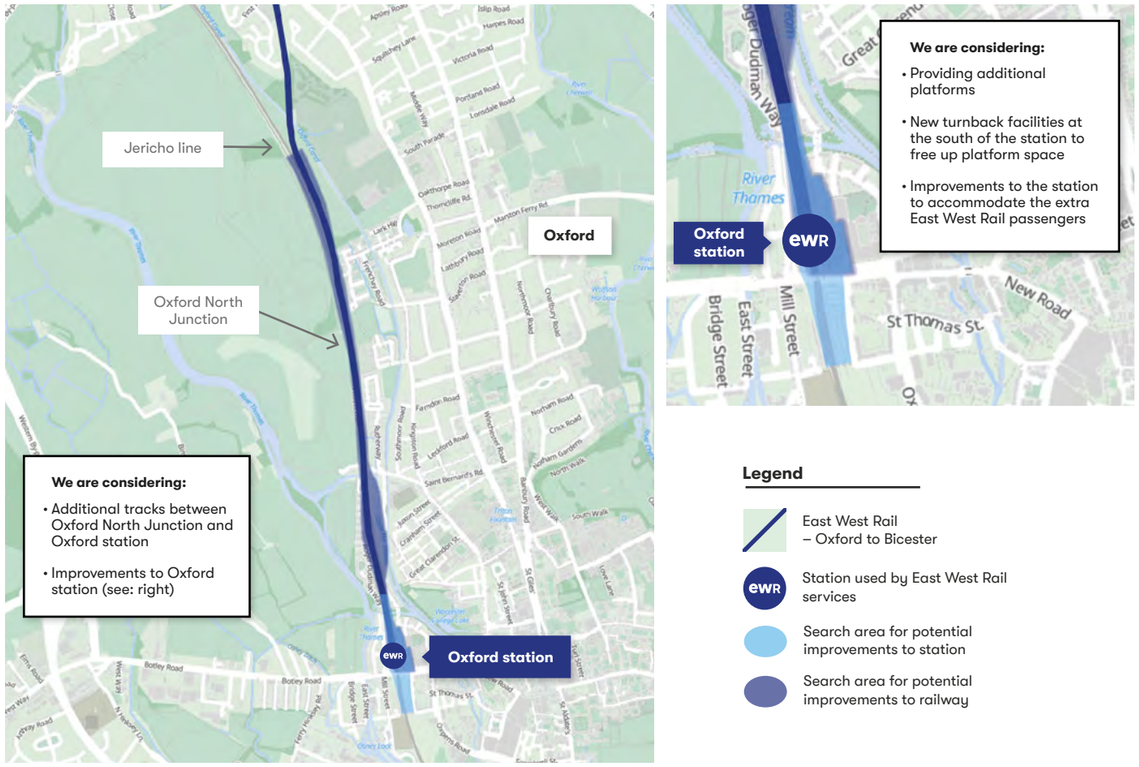


Figure: Oxford station area extent of potential works

Our proposals

We propose the following measures to increase capacity on the railway and at the station:

- Providing additional platforms to increase the number of trains that can use Oxford station at the same time
- The additional platforms will also enable some services to continue through Oxford to terminate elsewhere, rather than having to change direction to 'turn back' the other way (see below), thereby freeing up capacity at the station
- New infrastructure south of Oxford station to provide improved 'turn back' facilities (an area where trains can stand while the driver changes end to turn back for the return journey) outside of the station, freeing up platform space
- Station specific improvements to accommodate the increase in passengers generated by EWR.

On the approaches to Oxford station the options being considered could include:

- Additional tracks between Oxford North Junction and the bay platforms of Oxford station
- Additional track between Oxford North Junction and the Jericho line. This wouldn't involve redoubling the track all the way from Oxford North Junction to the station.

Our considerations

We are considering the following as we continue to develop our plans in this area:

- The effects on residents living in properties next to the railway, such as noise and disturbance
- The potential need to purchase neighbouring properties
- Protecting the historic London North Western Railway swing bridge and its setting
- The proximity to Port Meadow Special Area of Conservation
- Minimising the impact on current train services during construction
- How to maximise the benefits the Project can bring to communities in Oxford and the surrounding area.

Further details on our proposals and the factors we are considering can be found in the Technical Report.

If you think there are any other factors we should consider then please let us know. You will be able to comment on more detailed designs at our next consultation.

Oxford Parkway station

Why do we need to do something?

Oxford Parkway station is currently served by two trains per hour in each direction, with over 1 million passengers starting or finishing a journey at the station in 2018/19.

The station was originally designed to accommodate the predicted passenger numbers for Connection Stage 1 – the western section of East West Rail. However, since opening, passenger numbers using the station have been higher than the forecast to the extent that the existing car park was often full to capacity within two years of the station opening.

When services between Oxford station and Milton Keynes Central commence, people would benefit from an additional two trains per hour (in each direction) calling at the station.

When trains would start running between Oxford and Bedford/ Cambridge, a further two trains per hour (in each direction) would serve the station.

Therefore, EWR Co is assessing the need for upgrades at Oxford Parkway station and developing measures required to increase capacity and improve the customer experience.

We are keen to hear your views on customer experience and station facilities. Please see chapter 3 for more details.

Figure: Oxford Parkway and Bicester Village stations

Our proposals

We are currently assessing the impact of the increase in passenger numbers that the additional East West Rail services will bring to Oxford Parkway station. Potential improvements to the station could include:

- Options to expand the parking facilities at the station, together with options to encourage access to the station via sustainable modes, such as walking, cycling and access to the Park and Ride facility
- Improvements to the local highway networks to deal with the expected increase in traffic accessing the station
- Station upgrades to improve the customer experience.

Our considerations

We are considering the following as we work on the next stage of the design:

- What additional facilities may be needed to support the increase in passenger numbers at Oxford Parkway station
- Whether we need any more land than is currently used by the railway and the impact on landowners
- Whether/how an increase in road traffic and car journeys to the station might affect parking at the station and in surrounding roads
- Whether additional lighting may be needed at the station where new infrastructure is added (such as the provision of more car parking) to improve safety and security, and any potential impact on surrounding areas
- Minimising the environmental impact of any changes at the station, especially considering Oxford Parkway is in the green belt.

Further details on our proposals and the factors we are considering can be found in the Technical Report.

If you think there are any other factors that we should consider then please let us know. You will be able to comment on more detailed designs at our next consultation.

Bicester Village station

Why do we need to do something?

Bicester Village station is currently served by two trains per hour in each direction, with over 1.7 million passengers starting or finishing a journey at the station in 2018/19.

The station was originally designed to accommodate the predicted passenger numbers for Connection Stage 1 of East West Rail. However, current passenger numbers using the station have been higher than the forecast.

When services between Oxford station and Milton Keynes commence, people would benefit from an additional two trains per hour (in each direction) calling at the station.

When trains would start running between Oxford and Bedford, a further two trains per hour (in each direction) would call at the station.

As a result, we are considering the upgrades Bicester Village station may require, in order to increase capacity and improve the customer experience.

We are keen to hear your views on customer experience and station facilities. Please see chapter 3 for more details.

Bicester Village station

Our proposals

We are currently assessing the impact of the increase in passenger numbers that the additional East West Rail services will bring to Bicester Village station. Potential improvements to the station could include:

- Options to expand the parking facilities at the station, together with options to encourage access to the station via sustainable modes, such as walking and cycling
- Improvements to the local highway networks to deal with the expected increase in traffic accessing the station
- Station upgrades to improve the customer experience.

Our considerations

We are considering the following as we work on the next stage of the design:

- What additional facilities may be needed to support the increase in passenger numbers at Bicester Village station
- Whether we need any more land than is currently used by the railway
- How an increase in road traffic and car journeys to the station might affect parking at the stations and in surrounding roads
- Whether additional lighting may be needed at the station where new infrastructure is added (such as the provision of more car parking) to improve safety and security, and any potential impact on surrounding areas
- How the environmental impact of any changes at the station can be minimised.

Further details on our proposals and the factors we are considering can be found in the Technical Report.

If you think there are any other factors that we should consider then please let us know. You will be able to comment on more detailed designs at our next consultation.

London Road, Bicester

Why do we need to do something?

East West Rail would increase train services for people in Bicester, providing more connections to more destinations. The frequency of trains passing through the level crossing at London Road near Bicester Village station would increase. This means the existing level crossing could be closed for up to 50 minutes in every hour.

London Road provides an important link for local traffic between the south east area of Bicester and the rest of the town and serves as an important route for local bus services. It is one of only three roads that cross the railway in Bicester, the other two being the A41 to the west and the A4421 to the east, which are located on the edge of the town.

We appreciate that increased closure of the level crossing would be very disruptive to all those using London Road, the surrounding area and could potentially affect those living, working and visiting Bicester. That's why we are investigating a number of options to improve access across the railway.

Bicester London Road

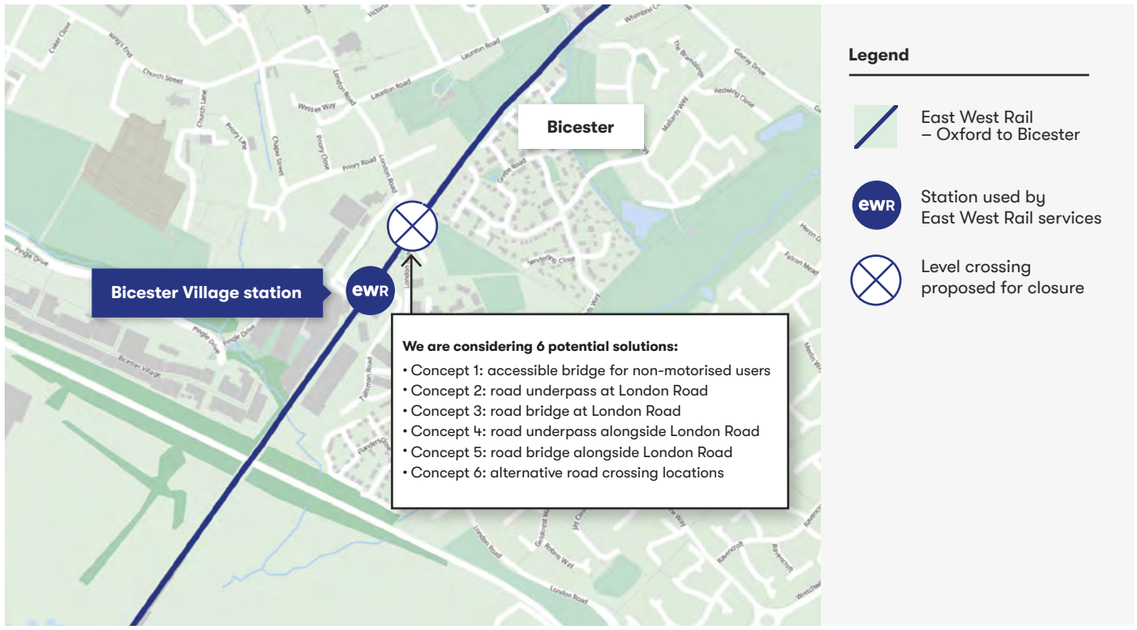
Options under consideration

We are considering six potential solutions and are seeking your feedback on these to help inform the development of our proposals. All the concepts involve the closure of the London Road level crossing but provide various alternative routes. The options we are considering are:

- **Concept 1:** accessible bridge for non-motorised users
- **Concept 2:** road underpass at London Road
- **Concept 3:** road bridge at London Road
- **Concept 4:** road underpass alongside London Road
- **Concept 5:** road bridge alongside London Road
- **Concept 6:** alternative road crossing locations.

Further information about the current use of the crossing, potential options for a bridge, and studies previously undertaken for the London Road level crossing can be found in the Technical Report.

Figure: London Road level crossing location

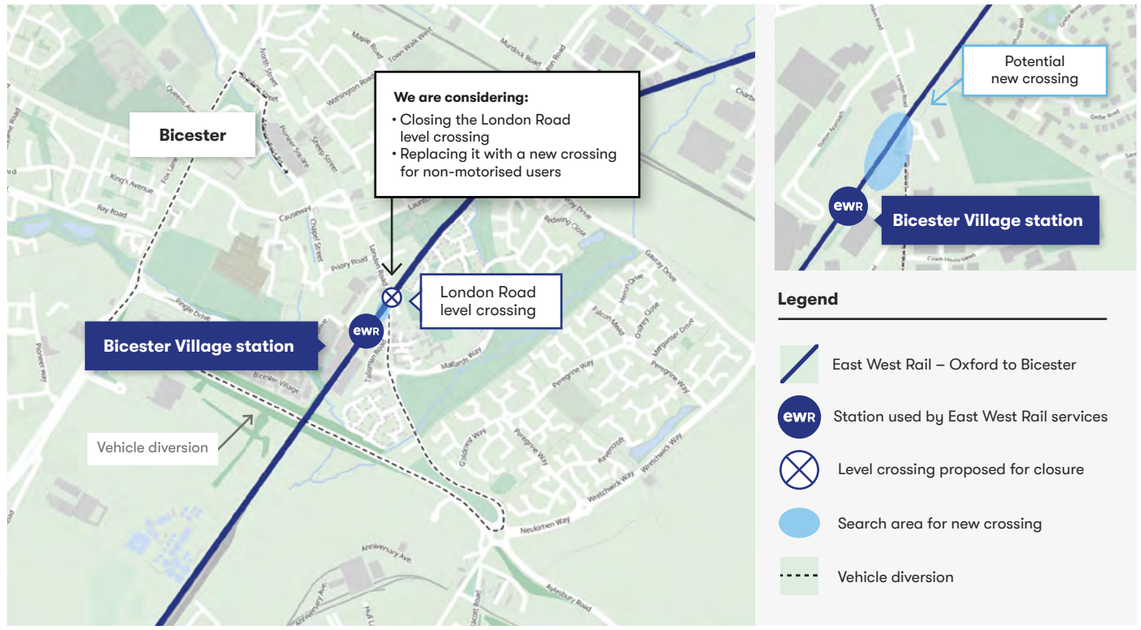


Concept 1: accessible bridge for non-motorised users

This would close the London Road level crossing and not provide an alternative road crossing for vehicles. A fully accessible bridge crossing of the railway for non-motorised users, including pedestrians and cyclists, would be provided and this could facilitate a pedestrian zone around the crossing area.

This would mean that vehicles that currently use London Road would be diverted around the south of Bicester via the A41 and Oxford Road, Kings End and Queens Avenue to reach the centre of Bicester.

Figure: Concept 1: accessible bridge for non-motorised users

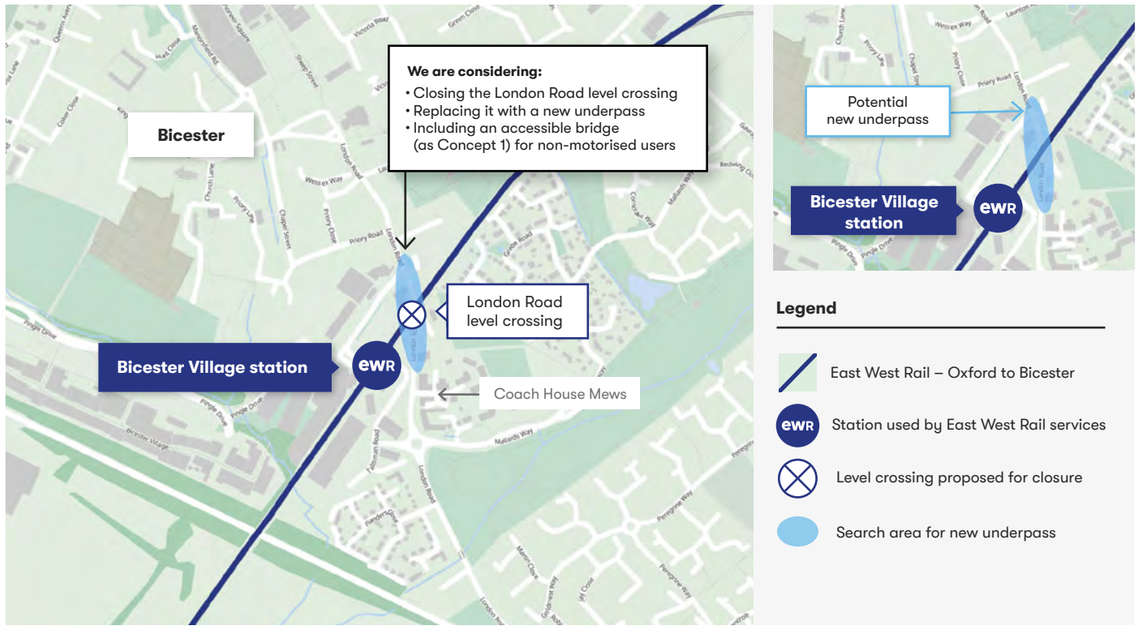


Concept 2: road underpass at London Road

This solution would provide an underpass of approximately 300m under the location of the existing level crossing. The underpass would provide access for both vehicles and pedestrians. However, we understand that this length of underpass may not be an attractive route for pedestrians, so at the next stage of design we would consider alternative pedestrian routes in addition to the underpass.

Construction of the underpass would require lowering of the existing London Road by around 5-6m and means the existing access into Westholme Court and the access road to Alchester Terrace (south of the existing crossing) could not be maintained. Alternative access points to these premises would have to be located elsewhere. Access to Coach House Mews, Station Approach, Priory Road and Garth Court could be retained.

Figure: Concept 2:
road underpass

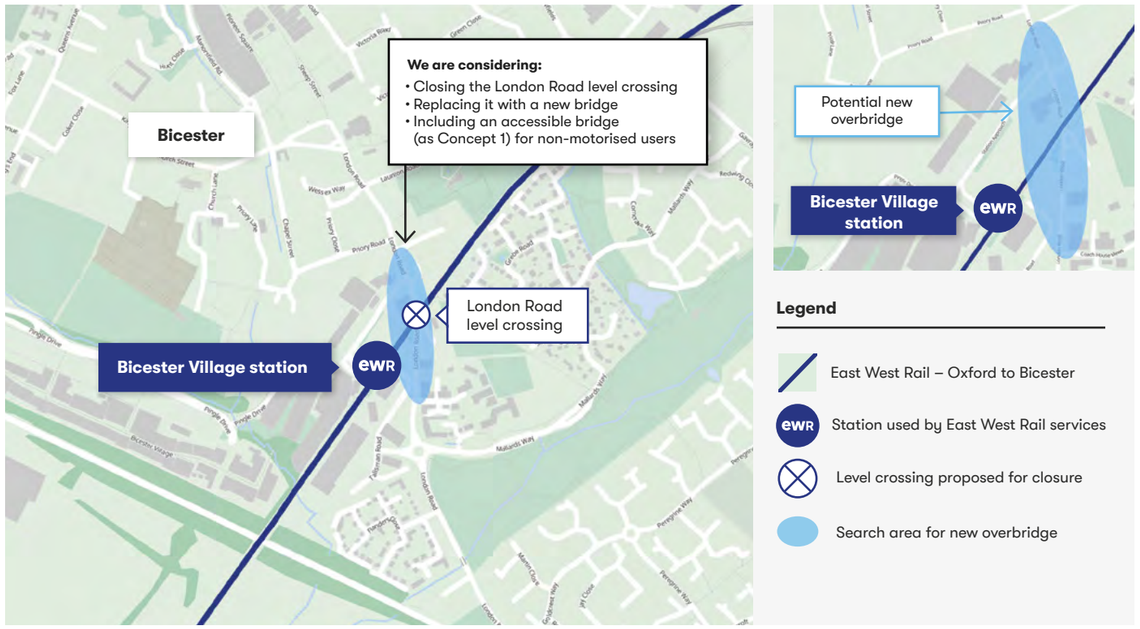


Concept 3: road bridge at London Road on the existing road

This concept would require a bridge that would allow the road to pass over the railway along the route of the existing London Road.

This has been considered as part of previous studies that are described in the Technical Report (section 6.5). Construction of this solution would be very challenging. This is because there is limited potential available space around London Road to construct a new bridge due to the proximity of neighbouring properties. If a bridge were to be built in this location it would be difficult to meet the usual road design standards to enable a 30mph speed limit and would be likely to require a number of properties to be demolished.

Figure: Concept 3:
road bridge

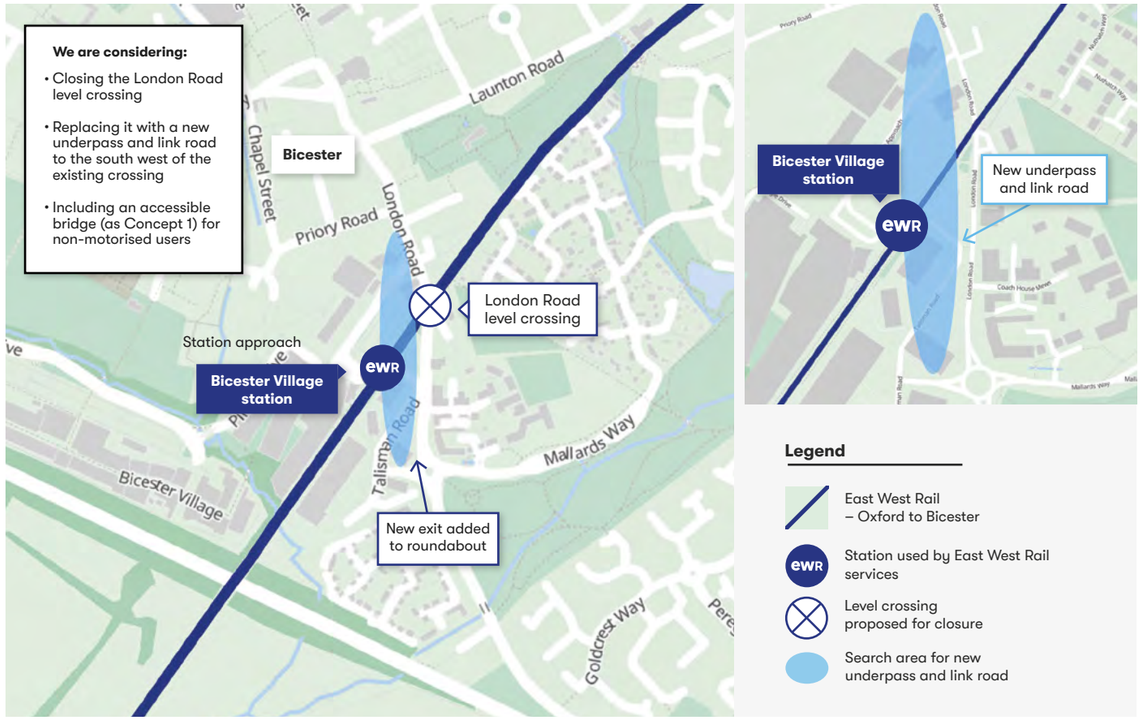


Concept 4: road underpass for London Road along a different route

This concept would provide a new underpass for London Road to the south west of the existing level crossing. The underpass would provide access for both vehicles and pedestrians. However, we understand that this length of underpass may not be an attractive route for pedestrians, so at the next stage of design we would consider alternative pedestrian routes in addition to the underpass.

A new exit would be added to the Talisman roundabout for the London Road underpass. Station Approach and Priory Road would join the underpass via a new road close to their existing locations. The existing London Road would be retained to maintain the existing utilities (gas, electricity and water services) in the road but there would be no access across the railway at this point.

Figure: Concept 4: road underpass alternative route

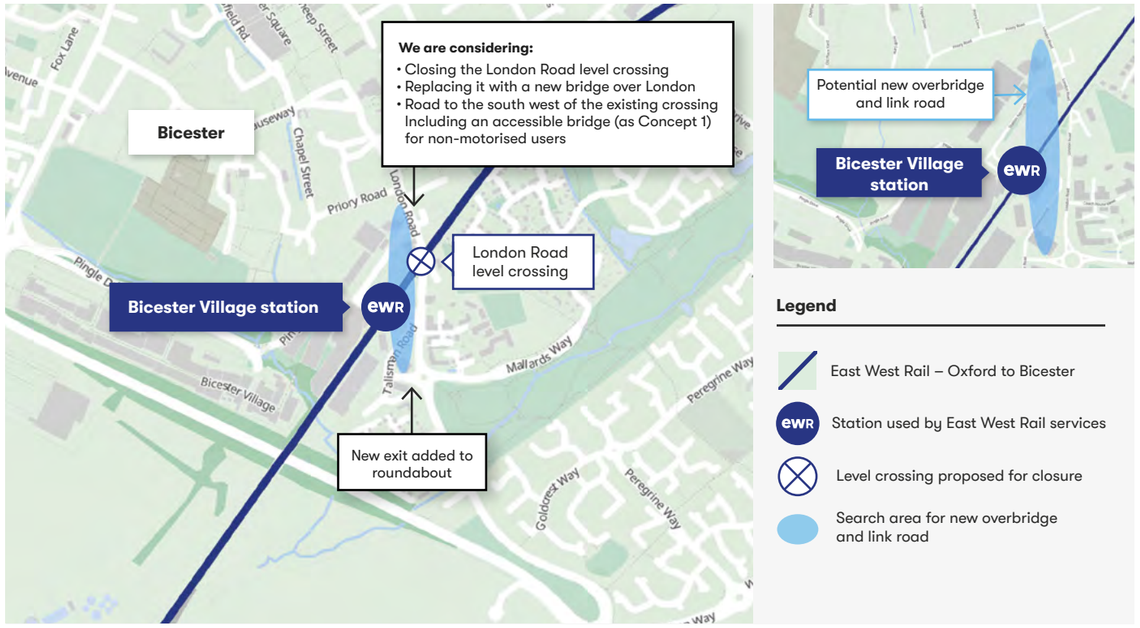


Concept 5: road bridge for London Road along a different route

This option would provide a new bridge over London Road to the south west of the existing level crossing. Given the built-up nature of the area there is little potential available space so it is likely that if a bridge were to be provided in this location, it would be difficult to meet the usual road design standards to enable a 30mph speed limit and is likely to require a number of properties to be demolished.

As with Concept 4 a new exit would be added to the Talisman roundabout for a route via the London Road bridge. Station Approach and Priory Road would join the bridge and the new road close to their existing locations. The existing London Road would be retained to maintain the existing utilities in the road but there would be no access across the railway at this point.

Figure: Concept 5: road bridge alternative route



Concept 6: alternative road crossing locations

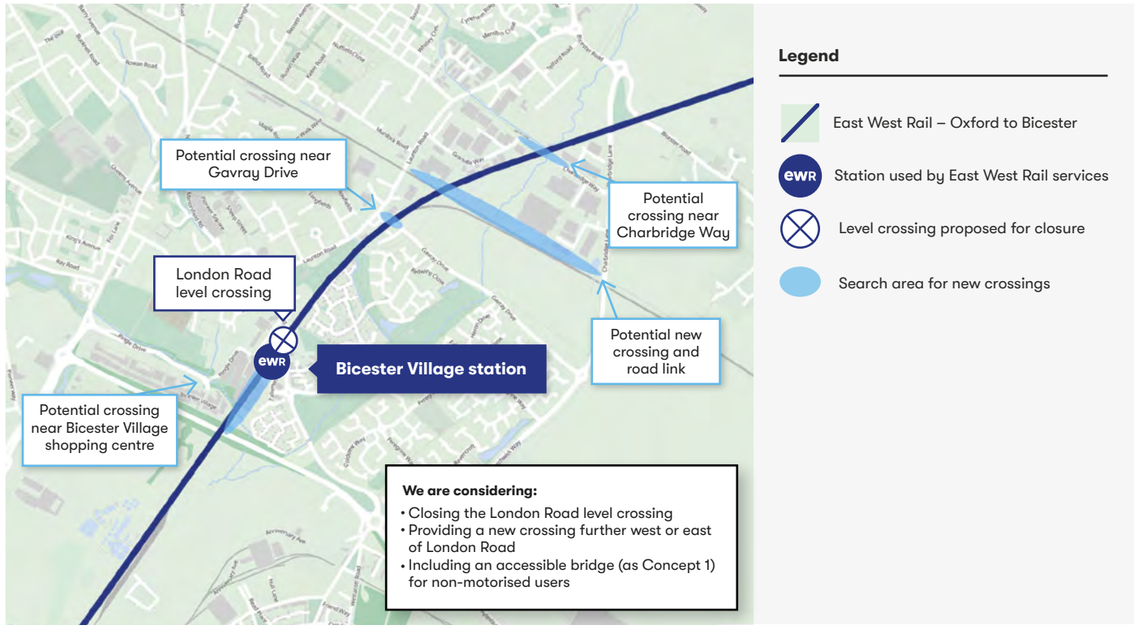
We have also considered solutions involving new crossings of the railway located to the west or east of the existing London Road level crossing. These would require traffic to be diverted either:

- Between London Road and the A41, or
- Between London Road and the A4421 (Charbridge Lane).

New crossings to the west would be more challenging because of the developments that have taken place at Bicester Village shopping centre and railway station since they were examined by Network Rail. All the potential options in this area would require a substantial number of properties to be demolished and reconfiguration of the shopping centre facilities, railway station and the Talisman buildings complex.

New crossings to the east could include a new bridge over the railway at Gavray Drive, with a new road parallel to the London to Birmingham railway line, or further north at Charbridge Way.

Figure: Concept 6: alternative road crossing locations



Our considerations at the next stage of design

We have carried out a preliminary assessment of these concepts taking into account the following factors: benefits to road users and pedestrians, capital costs, operating costs and potential environmental impacts including access locally. These are shown on the following page.

Details of this preliminary assessment can be found in the Technical Report. We know that all of these options are likely to affect amenity of residents and other users of the area. We will use your response to this consultation to inform our detailed assessment and decision making.

London Road Assessment Factors

Assessment factors	Concept 1	Concept 2	Concept 3	Concept 4	Concept 5	Concept 6
Transport user benefits – primarily in respect of the impact on road users	The ability of the A41 and other local roads to accommodate an increase in traffic arising from the termination of London Road at the railway, and any additional measures required. Measures required to accommodate traffic requiring access to Bicester Village station from the south east, including car parking and drop-off facilities on the eastern side of the railway.	The means of construction of the underpass are to be confirmed, the most economical construction methodology would necessitate the removal of the tracks for excavation and construction of the underpass to occur. This would result in prolonged closure of the operational railway. London Road would have to be closed for the duration of the works (which could be up to 2 years), causing severance between communities in the short and medium term.	London Road would have to be closed for the duration of the works (which could be up to 2 years), causing severance between communities in the short and medium term. The speed of the new London Road would have to be reduced to 30mph.	The means of construction of the underpass are to be confirmed. The most economical construction methodology would necessitate the removal of the tracks for excavation and construction of the underpass to occur. This would result in prolonged closure of the operational railway. This option would not require the closure of London Road for the same amount of time as concepts 2 and 3.	The speed of the road would have to be reduced to 30mph.	The disbenefits of longer journeys for road users would need to balance against the benefits to EWR. Measures to mitigate additional highway congestion may need to be implemented.

Table: London Road Assessment Factors

Assessment Factors	Concept 1	Concept 2	Concept 3
Capital costs	Concept 1 would have the lowest capital costs.	Concept 2 would have a high capital cost due to the nature of constructing a tunnel. London Road is a major thoroughfare for utility apparatus due to it being one of the few existing corridors where utilities can cross the railway in Bicester. Implementation of an underpass is likely to result in significant conflicts with existing electric, gas, water, sewer and telecoms apparatus which may require diversion prior to commencement of the main works. This adds to cost and engineering complexity.	This option would be less costly than an underpass, but more costly than concepts 1 and 6. This option would have a similar cost to concept 5.
Operating costs – in particular for the underpass options	Concept 1 would have the lowest operating costs.	Concept 2 would be costly to operate and maintain because of the likely drainage requirements.	
Environmental impacts and opportunities – including the potential severance effects and the extent to which these can be mitigated	The impact of severance on the local community in south east Bicester and whether an additional road route, with a crossing over the railway, is required (and indeed viable) to the north east of London Road.	The groundwater table is relatively high in this location and an underpass would be prone to flood risk, which means that a pumping system would be likely to be required. Impact to property may be substantial with access severed to Westholme Court and the access road to Alchester Terrace; access to these would have to be re-provided with alternative routes yet to be identified.	Impact to property may be substantial with access severed to Westholme Court and the access road to Alchester Terrace; access to these would have to be re-provided with alternative routes yet to be identified. Buildings in close proximity to the carriageway may need to be demolished during the works. Environmental impacts such as noise and visual impact are likely to be greater than the other non-overbridge Concepts.

Concept 4	Concept 5	Concept 6
Concept 2 would have a high capital cost due to the nature of constructing a tunnel. Concept 4 would avoid the costs associated with the existing utilities on London Road.	This option would be less costly than an underpass, but more costly than concepts 1 and 6. This option would have a similar cost to concept 3.	This concept would have lower capital costs than concepts 2, 3, 4 and 5. It would be more costly than concept 1.
Concept 4 would be costly to operate and maintain because of the likely drainage requirements.		
Environmental impacts for properties to the west of London Road would be substantially increased, as several buildings will directly clash with the proposed infrastructure. Impacts on the recently upgraded Bicester Village railway station are also likely to be more significant.	Buildings in close proximity to the carriageway may need to be demolished during the works. Environmental impacts such as noise and visual impact are likely to be greater than the other non-overbridge concepts.	Potential impacts on residential and commercial properties. There are likely to be further environmental impacts for each of the new crossings proposed.

Share your views

7. **What do you think is important to consider when developing our proposals for the railway in the Oxford to Bicester area? In particular we would like to know about:**

   a. Anything we should consider in relation to our proposals for Oxford station

   b. Your views on our proposals for Oxford Parkway and Bicester Village stations

   c. Anything we should consider about the level crossing at London Road in Bicester and the options we are considering.

8. **Please rank your preference for the proposed concepts for the level crossing at London Road in Bicester:**

   Concept 1: accessible bridge for non-motorised users
   Concept 2: road underpass at London Road (online)
   Concept 3: road bridge at London Road (online)
   Concept 4: road underpass alongside London Road (offline)
   Concept 5: road bridge alongside London Road (offline)
   Concept 6: alternative road crossing locations.

9. **Please tell us why you have ranked the proposed concepts above and provide any other comments.**

Do you have any alternative suggestions?

You can share your thoughts with us on this question by filling in our online feedback form at **www.eastwestrail.co.uk/feedback.** You can also send us your views by emailing us at **consultation@eastwestrail.co.uk** or writing to us at **Freepost EAST WEST RAIL.**

Alternatively, you can request a paper copy of the feedback form to be sent to you by:

- Ordering it online at **www.eastwestrail.co.uk/documents**
- Emailing us at **contact@eastwestrail.co.uk**
- Calling us on **0330 134 0067**.

Oxford station

Section B:
Bletchley and the Marston Vale Line — improvements to the existing railway and stations

Figure: Section B: Bletchley and the Marston Vale Line

04. Infrastructure development: Section B

The map illustrations shown in this chapter are not indicative of the land acquisition. We will minimise this wherever possible, especially in relation to homes and other buildings.

Introduction

This section of the Consultation Document sets out proposals for the railway between Bletchley and Bedford, known as the Marston Vale Line. It includes our proposals for providing a more frequent and reliable service for communities in the area, specifically:

- Train services and stations on the Marston Vale Line
- Bletchley station
- Additional track at Fenny Stratford
- Level crossings on the Marston Vale Line
- Marston Vale Line upgrade and construction.

The section of the route through Bedford St Johns station and into Bedford station is covered separately in the next section of this document.

Train services and stations on the Marston Vale Line

East West Rail presents a once in a generation opportunity to upgrade the Marston Vale Line, benefitting local communities with new rail services, as well as enabling trains to run between Oxford and Cambridge. The line, which runs between Bletchley and Bedford, was first built in 1846 and continued to operate after the original Varsity Line closed in the 1960s. In recent years, the Marston Vale Line Community Rail Partnership has worked hard to engage local people with the railway and promote the rail line. The underlying infrastructure, however, has not seen significant investment for decades, and the communities it serves have changed and grown considerably over that time.

Taking stock of the situation today:

- The signalling system is obsolete and has, at times, been unreliable. This has led to train services having to be suspended on numerous occasions
- The existing infrastructure means the line is slow, with just one train an hour, taking 42 minutes to do 16 miles – an average speed of just 25mph
- The stations are all unstaffed, and are very constrained in terms of the facilities and experience they can offer passengers, whether that's warm waiting areas, drop off points, or car and bike parking
- Many of the stations have amongst the lowest usage on the national network. Indeed, three of the ten stations see fewer than 40 passengers on average each day.

Figure: Current stations on the Marston Vale Line

Significant investment is therefore necessary if trains are to run along this line as part of their journey from Oxford to Cambridge. It is also important to ensure that when making this investment, we deliver the most benefit for both passengers and the communities that the railway serves. In this consultation we want your views on the best way to deliver the right railway, fit for both today and the future.

EWR Co has developed two alternative concepts for the train services and stations on the Marston Vale Line – which are set out in more detail later in this section.

We recognise that although the current service has suffered from poor reliability and low usage, it is important to some parts of the community. We have therefore prepared one concept that retains the existing hourly stopping service, whilst also introducing four new EWR fast services every hour – two of which run from Oxford to Cambridge, and two from Bletchley to Cambridge. These four EWR services would call at two of the 10 stations on the Marston Vale Line – namely Woburn Sands and Ridgmont. Woburn Sands and Ridgmont would therefore be served by five trains (in each direction) every hour.

We have also prepared a second concept, which considers whether the investment could be used more effectively, not only to better serve the existing communities, but also to ensure that improved transport infrastructure is provided for the growth already taking place in the area, as well as in the future. This concept merges a number of the existing intermediate stations together to provide five new stations on the Marston Vale Line, that would be easily accessible for more people, have improved facilities, and all benefit from more frequent and faster trains providing direct services to more destinations than are available today. All five merged stations would get two trains an hour, (in each direction). These trains would provide direct services between Bletchley and Cambridge; and Woburn Sands and Ridgmont would have a service approximately every 15 minutes, because they would also benefit from an additional two fast services (in each direction) every hour running between Oxford and Cambridge.

We are presenting both concepts in this consultation, and we are seeking your views on the merits of both, considering the benefits of maintaining the status quo versus the opportunities that might exist with a different configuration of stations and services. When considering the second concept, we are also open to your suggestions on the best locations for the potential five merged stations, whether those are locations we have proposed or alternatives.

Your responses to this consultation will help inform which concept we take forward to the next stage of design, and you will be able to comment on more detailed designs for this section of the railway at our next consultation.

Concept 1: retain the existing hourly service that stops at all current intermediate stations, and introduce fast limited-stop Oxford – Cambridge services alongside it.

There would be four fast East West Rail trains running on the Marston Vale Line every hour, which would stop at Woburn Sands and Ridgmont stations only. These trains would complete the journey between Bletchley and Bedford in approximately 22 minutes. There would also be the hourly stopping service, calling at all the current intermediate stations.

Concept 1 would look like this:

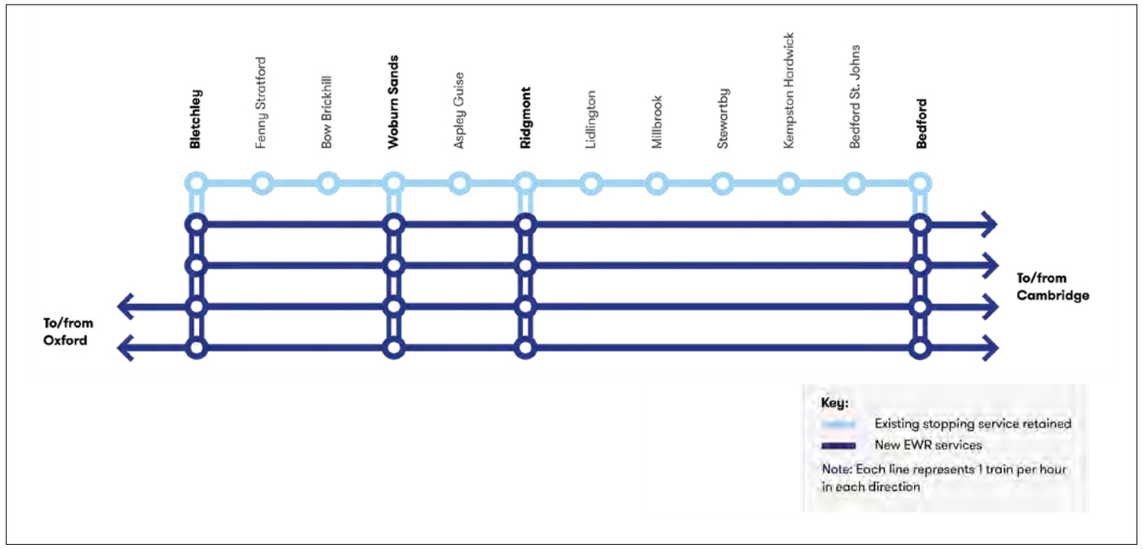


Figure and map: Marston Vale stopping services alongside EWR services

If you caught the one stopping train each hour at an intermediate station, you would be able to change onto a faster EWR train at either Woburn Sands or Ridgmont, for connections to Oxford and Cambridge. Journeys from some intermediate stations to either Bletchley or Bedford would also be quicker if you changed to the faster EWR services at Ridgmont. Because the fast limited-stop service would be calling at fewer stations, it would catch up with and need to overtake the stopping service. The stopping service would therefore need to wait in new additional sections of track known as 'passing loops' to allow faster trains to overtake. The time spent waiting in the passing loops would be offset by improvements elsewhere on the route, meaning the end-to-end journey time between Bletchley and Bedford for the stopping service would be largely unchanged. However, some shorter journeys between intermediate stations on the route would take slightly longer than they do today.

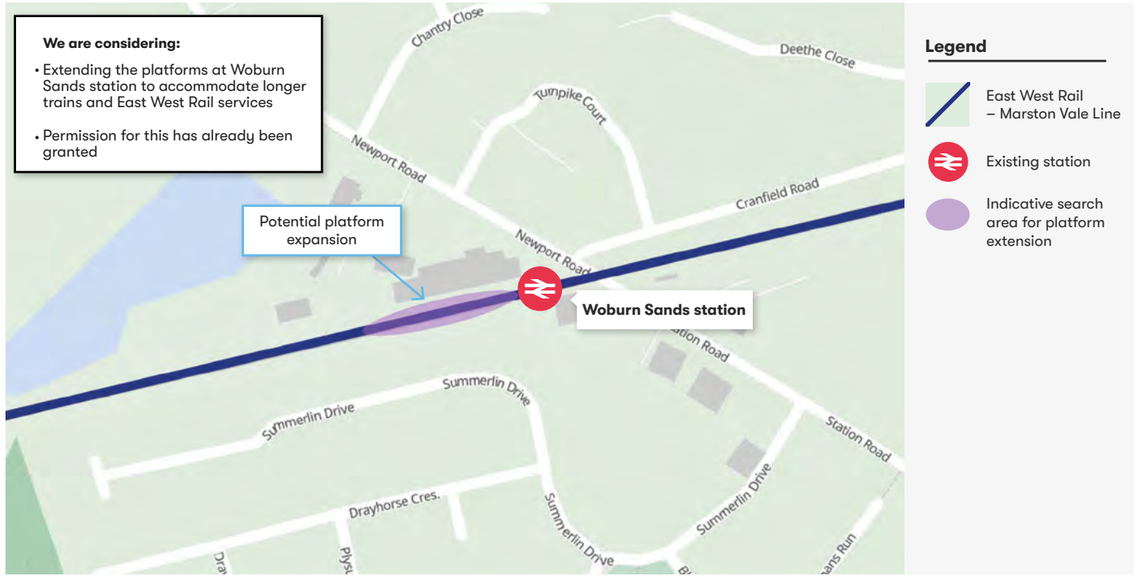
We recognise that a pattern of services in which trains need to overtake one another can lead to situations where one train, if it is delayed, can easily cause delays to other trains on the route. This can affect the overall reliability of the line.

We would need to make significant changes to the existing railway and some stations to allow the existing train service and the new EWR services to operate together. These changes are described below.

An additional platform may be needed at the existing 'low level' Bletchley station, where the services between Bletchley and Cambridge would start and end.

The platforms at Woburn Sands station would need to be extended to accommodate the longer trains that would be used for the fast EWR train service. Permission for this has already been granted.

Figure: Woburn Sands platform extensions



We would need to relocate Ridgmont station and build passing loops (track either side of the main railway that allows faster trains to overtake the slower ones). The new station would have longer platforms than the current one so that the longer EWR trains could call there.

We have examined potential locations, however there are several local factors that would need to be considered:

- The Grade II listed former station building, which is now used as Ridgmont Station Heritage Centre
- The bridges carrying the A507, M1 and Bedford Road over the existing railway
- The position of a pipeline that runs near the railway, which would need to be diverted
- The need to acquire new land not currently owned by EWR Co or Network Rail.
- The curvature of the railway, which affects the size of the gap between the train and the platform and therefore how easy it is to board and alight from trains.

Figure: Search area for Ridgmont station relocation and passing loops

We are proposing that Ridgmont station to be relocated to a site to the west of Bedford Road. Ridgmont station would become a four-platform station. New routes between the current and new station sites would be created for pedestrians and cyclists.

Bedford St Johns station would be relocated in connection with a proposed realignment of the railway in that area. This is described in more detail in Section C of this document which outlines our proposals in the Bedford area.

What could concept 1 mean for local communities?

- The existing hourly stopping service would be largely unchanged
- Some shorter journeys between intermediate stations on the route would take slightly longer as the stopping service would need to stop and wait to allow East West Rail services to overtake – but end-to-end journeys would take roughly the same time as today due to other improvements we would make to the route
- Woburn Sands and Ridgmont stations would benefit from an increase in service frequency to five trains per hour (in each direction) – one slower stopping service and four faster East West Rail services.
- The four new East West Rail services would complete the journey between Bletchley and Bedford in around 22 minutes – almost half the time taken by today's stopping service
- Most communities excluding Woburn Sands and Ridgmont would not benefit from these increased fast services and direct

services to Cambridge as well as other destinations. The other intermediate stations on the route would not be served by EWR trains, but opportunities would exist for people from places like Aspley Guise and Stewartby to change and reach those destinations.

- Existing communities could continue to access the train service as they do today – although passenger use at some stations is some of the lowest in the country
- Most station facilities would remain largely as they are today – many of the stations are on constrained sites so they cannot easily be expanded to improve accessibility
- There is the possibility that some villages would experience increased traffic and additional cars being parked in the vicinity of stations as a result of people driving to reach the existing stations. The existing stations, with their limited parking and drop off facilities, would be unlikely to meet the future transport needs of the growing communities in the area, particularly as new developments proceed.

Concept 2: Provide more people easier access to more frequent, faster and direct trains at five merged stations on the Marston Vale Line.

The ten existing intermediate stations would be merged, creating five new modern stations with better facilities in locations more suitable for many existing needs and future travel patterns.

We are proposing that the five new stations would be:

- Woburn Sands station relocated a short distance to the west of the current station
- Ridgmont station relocated between the current Aspley Guise and Ridgmont stations (in a similar location to that required by Concept 1)
- Lidlington station relocated between the current Lidlington and Millbrook stations
- Stewartby station relocated between the current Stewartby and Kempston Hardwick stations
- Bedford St Johns station relocated a short distance to the south or west.

If concept 2 is selected, we would seek local residents' views on the eventual station names that may be used. The current hourly stopping service would be replaced with two EWR stopping trains every hour between Bletchley and Cambridge calling at all five new stations. These trains would take 27 minutes to travel from Bletchley to Bedford instead of 42 minutes today.

Two faster Oxford to Cambridge trains would also run each hour. These would stop at the relocated Woburn Sands and Ridgmont stations meaning there would be four trains per hour in total serving these two stations. These trains would take 22 minutes to travel between Bletchley and Bedford instead of 42 minutes today.

Concept 2 would look like this:

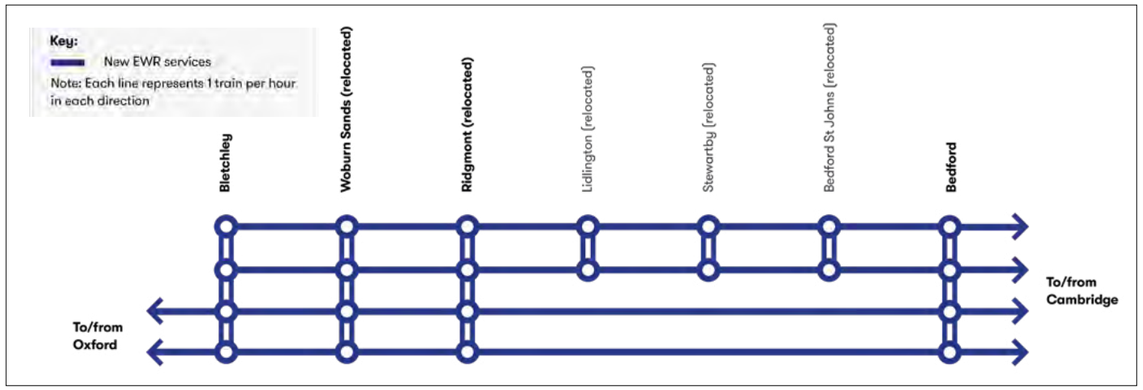


Figure and map: Train services at the new and/or relocated stations on the Marston Vale Line

What could concept 2 mean for local communities?

- Local communities would benefit from having East West Rail services calling at all five new stations, rather than just two of the existing intermediate stations
- More people would have access to more frequent services – all five of the relocated stations on the route would have at least double the frequency they have today. (In concept 1, only Woburn Sands and Ridgmont have an increased frequency of service).
- The relocated Woburn Sands and Ridgmont stations would have four trains per hour in each direction – this is four times the current level of service but one fewer than the number of trains at these stations in concept 1.
- More people would have access to direct train services going further afield, including Cambridge.
- More communities would have access to faster services - two trains each hour would complete the journey between Bedford and Bletchley in around 22 minutes, the other two trains – that stop at all 5 stations - each hour would take 27 minutes. (In concept 1, all four East West Rail trains would complete this journey in around 22 minutes, because they all serve two stations).
- All journeys on the route would be quicker than they are today, without the need to change trains. In concept 1, some journeys are quicker than today, some are quicker only if you change trains and a small number would be slower. All journeys are quicker, or at least the same, in Concept 2 than in Concept 1.
- The services are likely to be more reliable in this concept than in concept 1, as there is no need for trains to overtake each other, which can cause delay.
- Communities and users would benefit from new stations which would be purpose built with improved facilities, including bike and car parking, to accommodate the expected increase in passengers
- Based on existing and emerging local development plans, concept 2 would help avoid the risk of village roads being adversely affected by additional traffic and rail users' cars being parked in streets close to the existing stations
- Some people would need to travel further to the station but, with the increased frequency, and speed of services and direct services to more destinations, many journeys would still be quicker overall – particularly with improved pedestrian, cycling and public transport access that we are exploring.

The new or relocated stations

We have engaged with local stakeholders to identify possible areas for new or relocated stations, and have selected concepts which help us to achieve the following aims:

- Continue to serve communities that have an existing station, with an improved train service
- Improve local connectivity and provide direct services to a number of destinations including Oxford and Cambridge
- Increase passenger capacity to meet the demands of a growing population in the area, supporting local development plans
- Encourage economic growth by supporting existing and new businesses in the area
- Provide modern, customer and community focused facilities to encourage the stations to be used by people for more than just travel.

We are also working alongside local stakeholders to explore better and more sustainable ways of travelling to and from the stations, making people's end to end journeys simpler, easier and quicker, even if their local station is a little further away.

More detail on the potential new or relocated stations is shown below, along with a list of factors we are considering at this stage (a new station at Bedford St Johns is discussed in the following section of this document). We would like to hear your views about any other issues we should consider regarding concept 2, including any potential alternative options for station locations, provided this does not increase the number of stations beyond five.

Woburn Sands (relocated)

This option would see 4 direct trains an hour in each direction to destinations like Cambridge and Oxford We would propose relocating Woburn Sands station slightly to the west of its existing location.

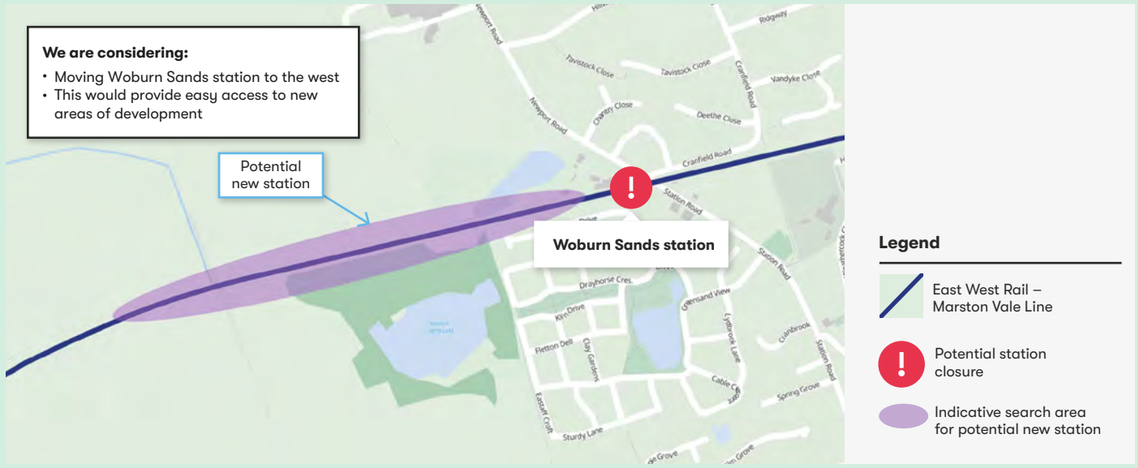


Figure: Search area for Woburn Sands station relocation

We are considering the following, along with your feedback to this consultation, as we develop our proposals for Woburn Sands:

- The existing station is in a heavily developed area, meaning expansion of the station in its current location would be very challenging. The current station has limited facilities
- Moving the station approximately 500m, around 6 minutes' walk, to the west would allow us to build a larger station with more and better facilities
- The relocated station would be better positioned for access to and from the Milton Keynes South East development area, without disrupting the existing community. This development includes proposals for 3,000 new homes.

Ridgmont (relocated)

This option would see 4 direct trains an hour in each direction to destinations like Cambridge and Oxford A relocated Ridgmont station is proposed in place of the current Aspley Guise and Ridgmont stations. The proposed location for the new station, to the west of Bedford Road, is shown below:

Figure: Search area for relocated Ridgmont station

The proposed location for this station is similar to that proposed for the relocated Ridgmont station in concept 1.

We are considering the following, along with your feedback to this consultation, as we develop our proposals for Ridgmont:

- A station in this area would be well-located to provide passengers easy interchanges with other modes of transport, including:
  - convenient access from the M1 and A421 roads
  - potential for a park and ride facility
  - the development of designated pedestrian and cycle routes to the current Ridgmont station and Aspley Guise
- The new station would be on a straight part of the railway, which would be safer for passengers than the curved platforms at the existing Ridgmont station
- The station would be well located to support future new homes and employment sites
- Avoiding any potential impact on the setting of the Ridgmont Station Heritage Centre
- Minimising potential impacts to nearby green belt land, to the south of the railway.

Lidlington (relocated)

This option would see 2 direct trains an hour in each direction to destinations like Cambridge. A relocated Lidlington station could replace the current Lidlington and Millbrook stations. The proposed location, to the west of Marston Road, is shown below:

Figure: Search area for relocated Lidlington station

We are considering the following, along with your feedback to this consultation, as we develop our proposals for Lidlington:

- Relocating the station would allow us to build a larger modern station with more facilities than would be possible at the current Lidlington station
- A station in this location would be more easily accessible from the new homes planned as part of the Marston Valley development, while continuing to serve the existing village
- On the basis of current plans, access to the relocated station from the new development would be possible without passing through the existing village at Lidlington, thereby avoiding increased traffic flows
- Working with local stakeholders we would design the station with infrastructure to encourage sustainable ways of travel to and from station and ensure connectivity for communities
- We would look for ways to provide sustainable access to the new station from the village of Marston Moretaine. The proposed relocated Lidlington station would be about 700m further away than the current Millbrook station.

Stewartby (relocated)

This option would see 2 direct trains an hour in each direction to destinations like Cambridge. A relocated Stewartby station would replace the current Stewartby and Kempston Hardwick stations. The proposed location, close to Broadmead Road, is shown below.

Figure: Search area for the relocated Stewartby station

We are considering the following, along with your feedback to this consultation, as we develop our proposals for Stewartby:

- The relocated station would be a similar distance to the centre of Stewartby as the existing station
- The relocated station would be easily accessible for the people living in the new homes which are planned for the former Stewartby Brickworks site
- The new location would provide easy access by rail to the anticipated 15,000 new jobs which could be created at the proposed Bedford Business Park, just to the north east of the new station
- We would look to provide sustainable access to this new station from the existing and the proposed new residential areas at Wootton and the west side of Bedford. This would help relieve pressure on the local road network, as we anticipate that people may use this station to access the railway instead of driving into Bedford station

- We would look for ways to provide convenient access to the relocated station from Kimberly Sixth Form College. The new station location would be around 10-12 minutes further walk (circa 1km) from the college, or a short mini-bus ride
- Working with local stakeholders, we will look to design high-quality walking and cycling routes connecting people to the station
- The station would make East West Rail more easily accessible from the Wixams area by using existing roads or new roads that could be built for Bedford Business Park
- We would also investigate options for demand-responsive services, for example mini-buses, or ultimately autonomous vehicles, to improve connectivity to the station from the surrounding area.

Wodburn Sands station

Our considerations

We have started our assessment of the two Concepts for the Marston Vale Line, and will use your response to the consultation to inform our detailed assessment and decision.

Assessment Factors	**Concept 1** – retain existing service (in a modified form) and introduce limited-stop Oxford to Cambridge services alongside it, calling at Woburn Sands and Ridgmont.	**Concept 2** – provide a more frequent, faster service with some new and relocated stations, and improved community access.
Transport user considerations	**Slower journeys** – some journeys would take longer than in concept 2 and some shorter-distance journeys would take longer than they do today because the stopping train would need to wait for faster EWR trains to overtake. **Less reliable** - because of the way in which the faster and slower trains interact. **Some people would be closer to stations** - some existing users would have a shorter distance to travel to reach a station than in concept 2.	**Better connections to Cambridge** - more stations would have direct services to Cambridge. **Faster services** – some journeys would be shorter than in concept 1 and all would be faster than today. **More reliable** – as passenger services do not need to overtake one another. **Some people would be further from stations** – some train users would be further from an existing station; but others would be closer.
Supporting housing and economic growth – such as serving areas suitable for development, encouraging regeneration, improving employment opportunities and productivity benefits from planned and existing development	**Less support for housing and growth** – as the existing stations are not in locations that increase opportunities for existing and future development.	**Greater support for housing and growth** – because new or relocated stations have been located to consider existing and future development.

Assessment Factors	**Concept 1** – Retain existing service (in a modified form) and introduce limited-stop Oxford – Cambridge services alongside it, calling at Woburn Sands and Ridgmont.	**Concept 2** – Provide a more frequent, faster service with some new and relocated stations and improved community access.
Capital costs (of the infrastructure needed for each option)	**Similar costs likely for both options** – there would be lower costs associated with station improvements, but these savings would be offset by the need to provide passing loops.	**Similar costs likely for both options** – there would be increased costs from relocating stations, but corresponding costs savings because passing loops would not be necessary.
Operating costs	**Higher costs likely** – this option could cost more to maintain due to the greater amount of track infrastructure required with passing loops and more stations and the need for more trains to provide the service.	**Lower costs likely** – this option could cost less to maintain as there would be less track infrastructure and fewer stations than concept 1. It would also need fewer trains to provide the service.
Short distance connectivity to support commuting travel into key employment hubs (current and future) – such as the impact on journeys that are currently undertaken on the route	**Travel to the station may be quicker** – the journeys that people currently take would be maintained.	**Travel to the station may take longer** – for some existing users, the journey to the station may take longer; for others it would be shorter. This concept could attract more people to use the railway as a whole if better stations are provided in suitable locations for existing and future development.
Short distance passenger services (regional journeys, station to station)	Some shorter journeys would be **slower** than they are today.	Short distance journeys from the new or relocated stations would be **faster** than they are today.
Long distance passenger services	**Long distance services may be less reliable** – as the faster long distance services are more likely be delayed by the slower services.	**Long distance passenger services would be more reliable –** because faster trains would not be delayed by the slower services. **New services to Cambridge** would be available to more passengers.

Assessment Factors	**Concept 1** – Retain existing service (in a modified form) and introduce limited-stop Oxford – Cambridge services alongside it, calling at Woburn Sands and Ridgmont.	**Concept 2** – Provide a more frequent, faster service with some new and relocated stations and improved community access.
Performance	**This option could be less reliable** – as there would be more trains using the railway, the interactions between trains are more complex and there are more stations and track. This leads to an increased risk of an incident or infrastructure failure causing more widespread delay.	**This option could be more reliable** – with fewer trains using the railway, simpler interactions between trains and less infrastructure. This could reduce the risk of incidents or infrastructure failure causing delay.
Environmental impacts and opportunities	**Negative impacts** – may be associated with the new passing loops around Ridgmont but we would provide mitigation measures **Maintain accessibility** – existing communities would retain existing stations, reducing the length of journey to the station for some users compared to concept 2	**Negative impacts would be greater** – due to the development of stations on undeveloped land. **Less accessible for some people in existing communities** – improvements would be made for existing and future communities by providing a better and faster service as well as improved access arrangements, but it could be less accessible for some existing communities.

Bletchley station

In February 2020, Network Rail was granted permission to expand Bletchley station with two new platforms (for trains to and from Oxford), and to create a new footbridge to link the new platforms with the rest of the station.

Figure: Works already consented at Bletchley station

Why do we need to do something?

With the extension of East West Rail services to Bedford and Cambridge, Bletchley station will become an important hub on the East West Rail route. It is expected that the station will provide an important interchange between different East West Rail services, and with trains to London Euston, the West Midlands, and the north west of England.

The station is expected to see increased use from local people and by those accessing Bletchley from locations newly connected to the town via East West Rail. Building on the work to date we want to ensure the best possible customer experience given the increase in trains and passengers since the last time the station was designed.

Our proposals

We are considering a range of improvements to ensure the station is fit for the future. Improvements to the station and passenger experience are being consulted on - if you are interested in how you can use the station, please refer to the **customer experience and railway operations section of this consultation**. We are keen to hear your views on customer experience and station facilities. Please also see Chapter 3 for more details.

Figure: Search area for station works

To accommodate the East West Rail train service, we may need to carry out the following works:

- Altering or replacing the current station footbridge
- Providing step-free access to platform 6
- Improving or replacing the current station building on Sherwood Drive
- Improving and enlarging the station car park
- Altering the proposed design of the new platforms for trains to and from Oxford
- Providing a further additional platform, next to the current platform 6. This platform would be used by Bedford or Cambridge trains that start or terminate at Bletchley, and would provide additional platform capacity to allow more trains to operate in the future
- Creating a new station entrance on the east side of the station near the Saxon Street / Buckingham Road roundabout. This new entrance would be more convenient for access to and from the bus station, the town centre and Fenny Stratford.

Our considerations

We are considering the following, along with your consultation feedback, as we develop our proposals:

- Improving overall benefits for transport users
- Enabling housing and economic growth, for example serving areas with developable land
- Contributing to the regeneration of the surrounding area
- Overall affordability, capital costs and operating costs
- Ensuring good connections for passengers to existing main lines
- Environmental impacts and opportunities
- Consistency with local authority plans.

Fenny Stratford additional track

Why do we need to do something?

Between Bletchley station and the A5 trunk road near Fenny Stratford there is a section of single track. This section of single track would not be able to cope with the additional two trains per hour which would run between Oxford and Cambridge, and the two trains per hour between Bletchley and Cambridge, without affecting other services on the route.

A second track is needed to increase capacity in this area. Because a second track has previously existed on this section, we are confident we can build this within the existing railway boundary. However, we may need more land to repair and improve the existing embankments. We will consult further on this as part of our next consultation.

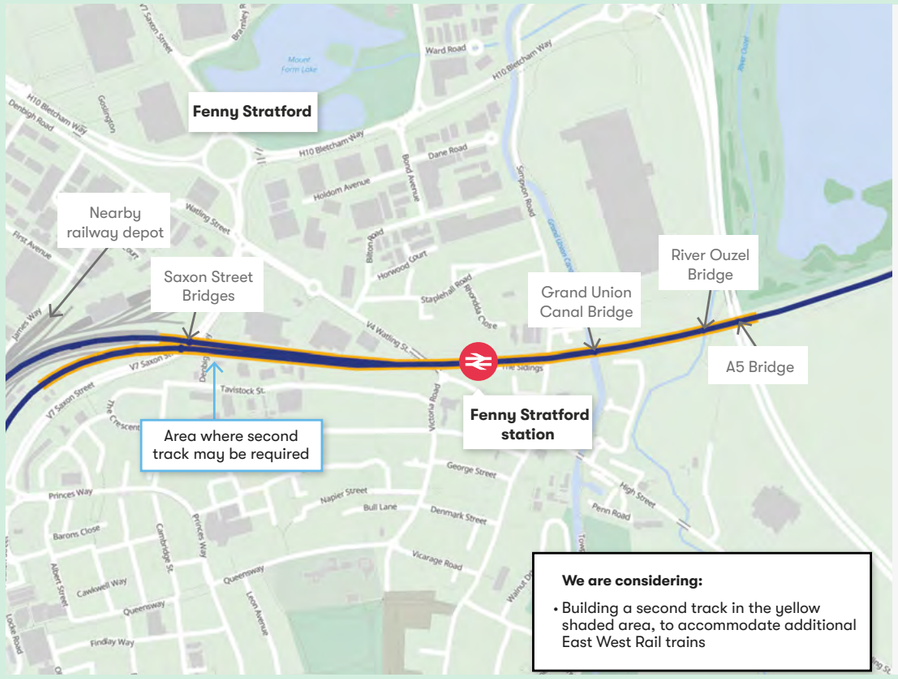


Figure: Proposed works near Fenny Stratford

There are four bridges that carry the railway line over the River Ouzel and local roads (the Saxon Street dual carriageway and the A5 east of Fenny Stratford). These bridges were built to carry only one track; therefore changes would be needed to allow for both tracks.

Our options

We are considering the following options for these bridges:

- Building new bridges next to the existing bridges to carry the new tracks, or
- Replacing the existing bridges with wider bridges that would carry both tracks.

We are considering the following, along with your consultation feedback, as we develop our proposals:

- Whether we need to acquire any land next to the existing railway (either permanently or temporarily) for construction
- Whether we need to close roads and footpaths, for how long and the impact this could have on local people
- Any potential impacts on the environment, particularly ecology around the River Ouzel
- How the design for the new track would connect into the nearby railway depot and train stabling locations – also known as sidings.

Our considerations

We are considering the following, along with your consultation feedback, as we develop our proposals:

- Transport user benefits – particularly the impact of each option on journey times
- Overall affordability, capital costs and operating costs
- Meeting current and future demand for freight
- Performance
- Safety risk (during both construction and operation)
- Environmental impacts and opportunities.

Level crossings on the Marston Vale Line

Figure: Level crossings which are subject to closure

Why do we need to do something?

There are currently 31 level crossings on the Marston Vale Line. These level crossings are rights of way allowing people to cross the railway and include public highways, private access roads, public footpaths, bridleways and agricultural access routes for farms divided by the railway. We fully recognise the importance of maintaining vital connections for people whilst balancing the need to make the railway safer for everyone.

Network Rail gained permission to close 11 of the 31 level crossings on the Marston Vale Line as part of its previous proposal for the introduction of an hourly Oxford to Bedford service. Network Rail has also recently closed three further crossings on the line. The EWR Project would increase the number of trains beyond what was previously planned, and we would need to close more level crossings to ensure a safe and reliable service.

Given the safety concerns associated with level crossings, it is a primary objective of the Office of Rail and Road (which regulates the railways) to close level crossings permanently. We need to consider carefully what happens with the existing level crossings on this line. The Project would result in at least four times as many trains using the Marston Vale Line than is currently the case, with trains running faster than the current services. This would make the existing level crossings on the Marston Vale Line unworkable in their current format. Level crossings can also cause delays for passengers and users due to equipment failures, accidents and other incidents. These delays would make it harder to deliver the Project's objectives for a good quality and reliable Oxford to Cambridge service.

Whilst level crossings provide connectivity for local people, retaining the current level crossings would cause inconvenience to the local communities and other traffic that use them. Although it is too early to have precise timings for each crossing, it is reasonable to assume that, if there were five trains per hour (in line with concept 1), some level crossings could be closed for as much as 40 minutes per hour.

We aim to close level crossings on the Marston Vale Line and replace them with alternative access. We would provide between 16 and 19 new bridges over or under the railway together with new links to existing bridges. The aim of our proposals is to achieve:

- Convenience for users of the local rights of way
- Improved safety for all, given the new more frequent, faster services
- Increased reliability for those services, minimising delays caused by incidents or equipment failures.

To achieve this, we would close and replace with alternative access, the following level crossings:

- Fenny Stratford (Simpson Road)
- Bow Brickhill (V10 Brickhill Street)
- Browns Wood
- Pony
- Woodleys Farm*
- Fisherman's Path*
- Woburn Sands (A5130 Newport Road / Station Road)
- Mill Farm
- Sewage Farm
- Aspley Guise (Salford Road)
- Old Manor Farm
- Berry Lane*
- Long Leys*
- Husborne Crawley Footpath No. 6
- Matey Boys*
- Husborne Crawley Footpath No. 10*
- Ridgmont (Station Road)
- Broughton End
- Forty Steps
- Playing Field
- Lidlington
- Pilling Farm South*
- Marston (Marston Road)*
- Millbrook
- Green Lane (Stewartby)
- Stewartby Brickworks*
- Wootton Broadmead (Broadmead Road)
- Wootton Village
- Kempston Hardwick (Manor Road)*
- Woburn Road*
- Bedford carriage sidings.

* These crossings already have permission for closure. We intend to implement the closure of these crossings but, in some cases, we would propose improved alternative access routes to take account of the closure of adjacent crossings. Our proposals would be an improvement to permission previously obtained by Network Rail. We have included further details about these level crossings in the Technical Report.

We have undertaken some initial design development work to identify a number of potential options for alternative access for each level crossing we propose to close. This would be via a new road, footbridge, underpass, or diversion to an alternative crossing. We would like to hear from you whether there are any further issues we should consider for these level crossings, and whether you have any comments on the potential options presented or alternatives you would like us to consider.

A typical design of a road, footbridge or underpass is shown below. At this stage we are only looking at suitable locations for these. We will consult again on more detailed designs at our next consultation along with information about any alternatives considered, environmental and amenity impacts.

Figure: Typical design of a footbridge with steps only

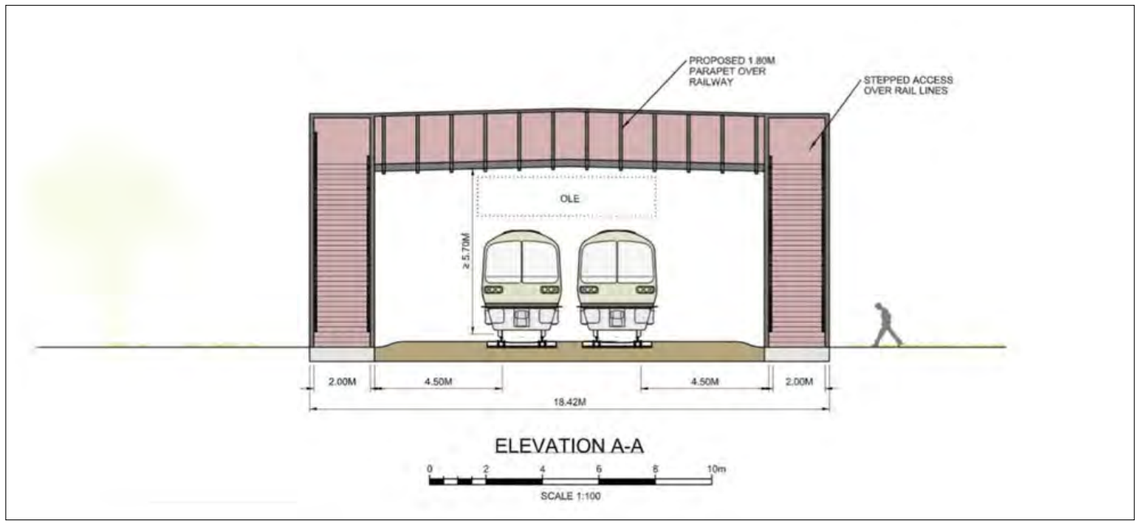


Figure: Typical design of a footbridge with steps and a ramp

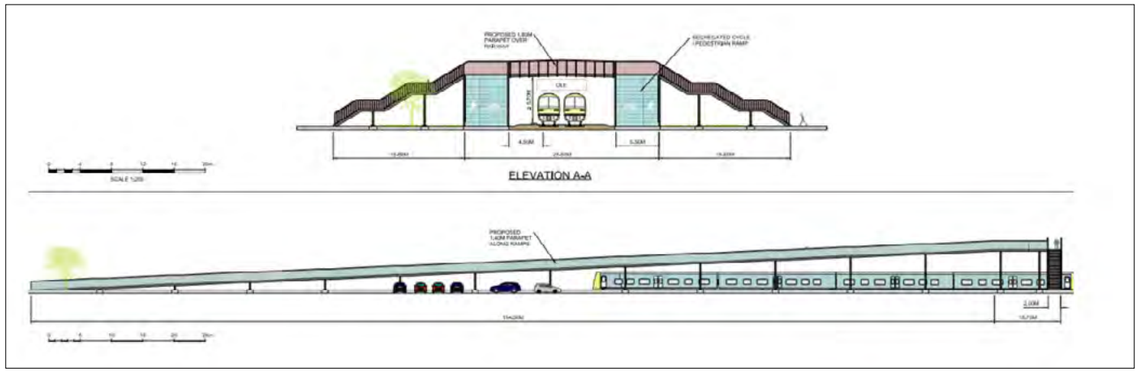


Figure: Typical pedestrian underpass

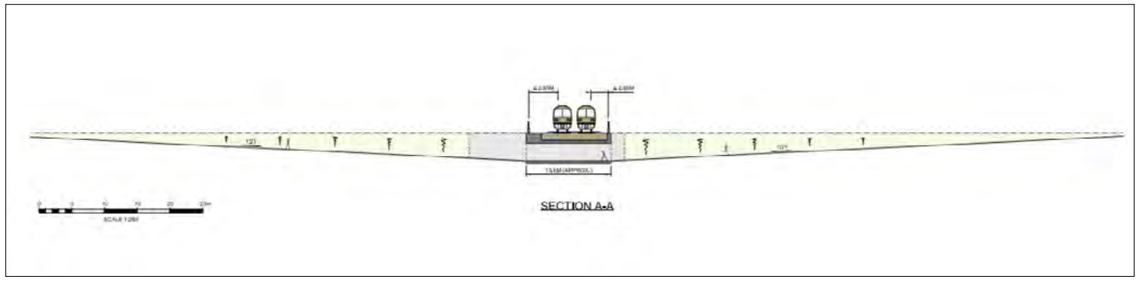
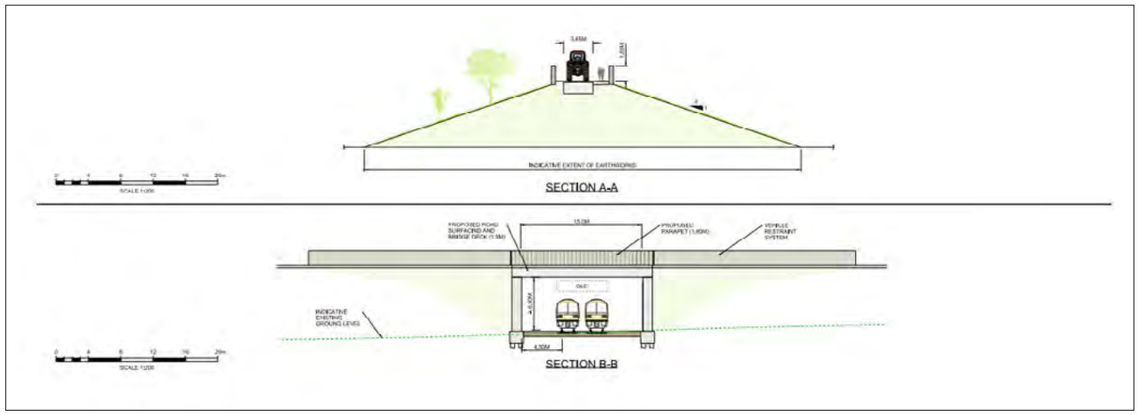


Figure: Typical road overbridge



Fenny Stratford (Simpson Road)

Our options

Fenny Stratford level crossing is located on Simpson Road, to the north of Fenny Stratford and adjacent to Fenny Stratford station. Simpson Road connects the village of Simpson with Fenny Stratford and Bletchley.

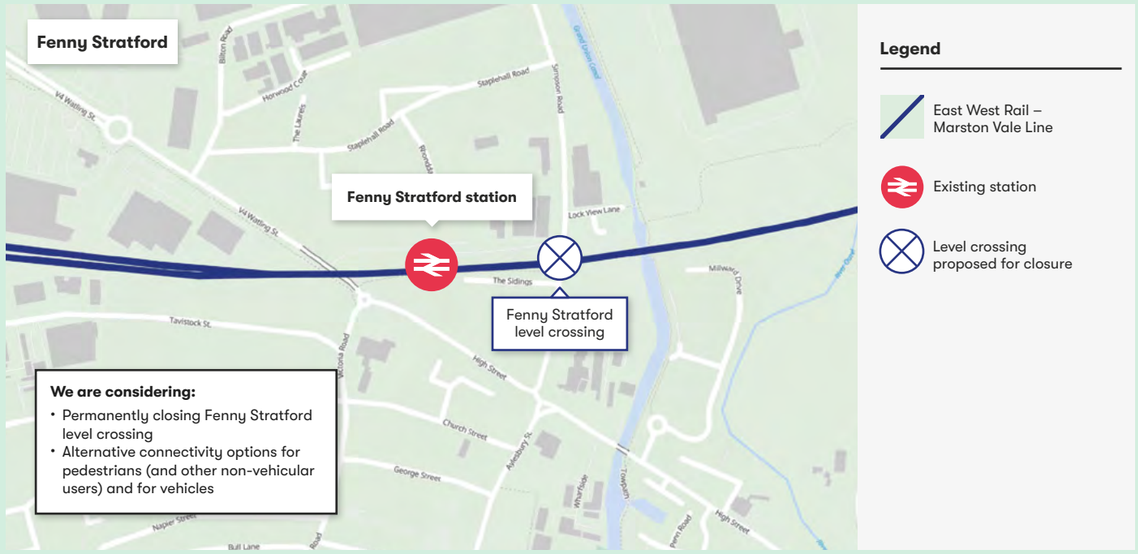


Figure: Location of Fenny Stratford level crossing

We would need to permanently close this level crossing. There are three options for vehicular traffic and three options for pedestrians and other non-vehicular road users.

Vehicular traffic option 1: no new road

Under this option, no new road would be built, and all vehicles would be diverted to use Watling Street and Staple Hall Road, which is a quiet residential road. This would include large vehicles and lorries.

Under the options 2 and 3, cars and smaller vehicles would be diverted to use Watling Street and Staple Hall Road, while a new link would be created between Bletcham Way and Simpson Road, meaning larger vehicles and lorries do not need to use Staple Hall Road.

Figure: Proposed options for the diversion of vehicular traffic

Vehicular traffic option 2: the southern option

A new link road would connect a new junction on the southern side of Bletcham Way to a new junction on Simpson Road.

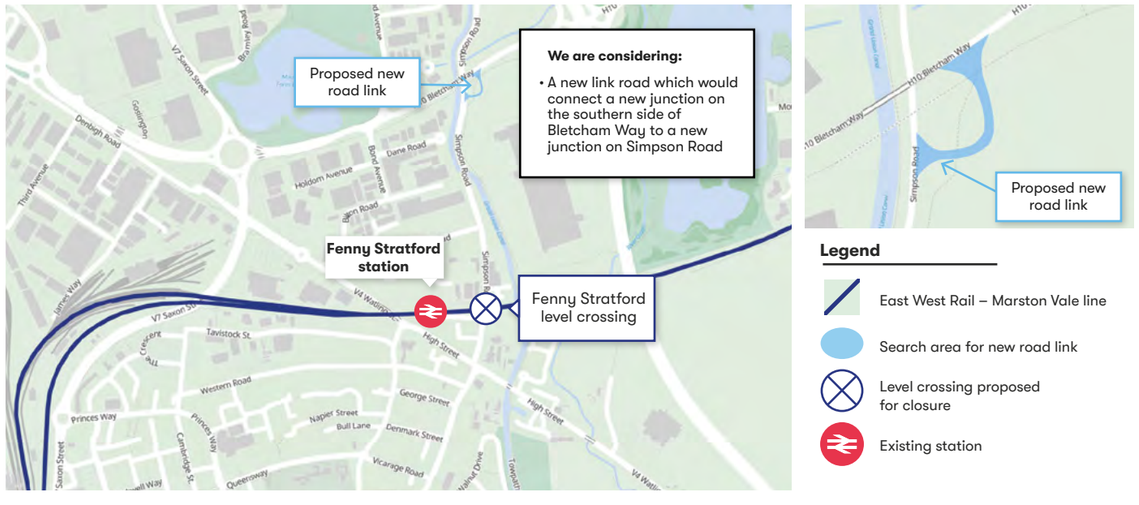


Figure: Vehicular traffic option 2: southern option

Vehicular traffic option 3: the northern option

A new link road would connect a new exit on the Fenny Lock roundabout to a new junction on Simpson Road.

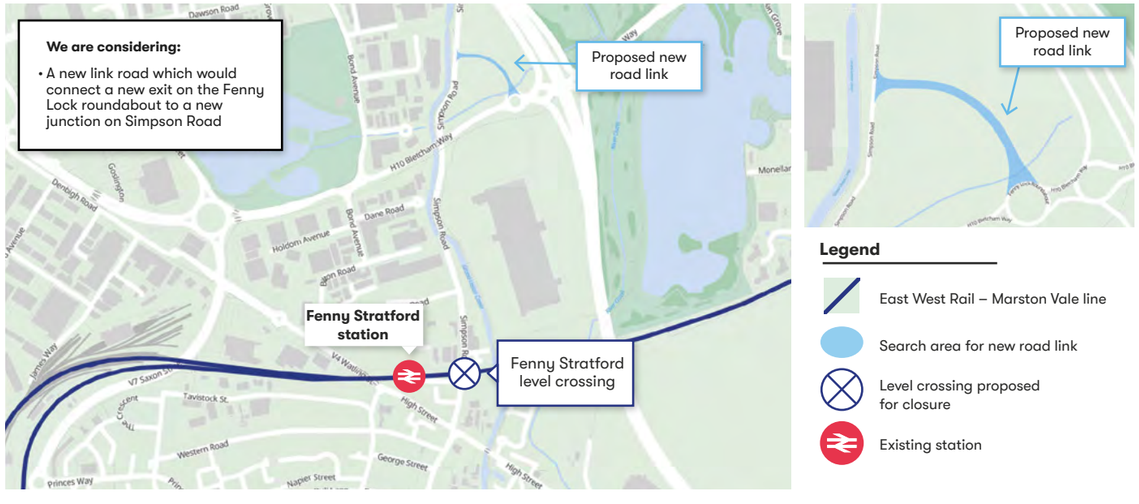


Figure: Vehicular traffic option 3: northern option

We are considering the following, along with your consultation feedback, as we develop our proposals for the Fenny Stratford crossing:

- The current and future levels and types of access needed to Simpson Road
- Potential traffic increases on Staple Hall Road as a result of the level crossing closure, and the impact of this on people living in this quiet residential road
- Ecology and other environmental impacts from the construction of a new link road
- Land that may need to be acquired to build the new link road.

Pedestrian and other non-vehicular road user options

For pedestrians and other non-vehicular road users, we have three options for maintaining access across the railway:

Pedestrians and others option 1: no new construction/works

Following the level crossing closure, non-vehicular traffic could instead make use of existing pedestrian routes along Staple Hall Road, Watling Street or the Grand Union Canal towpath.

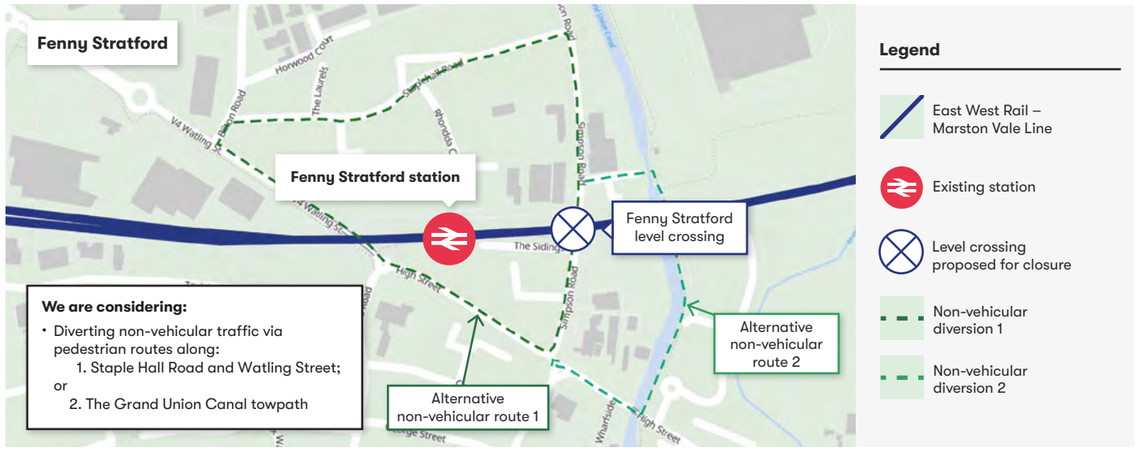


Figure: Proposed options for the diversion of pedestrians and other non-vehicular road users

Pedestrians and others option 2: the footbridge option

The footbridge option would provide access across the railway at the location of the existing level crossing. The footbridge would include stairs and a ramp for access, north and south of the railway. There is not currently enough space to build a footbridge here, so we may need to acquire and demolish a commercial building to the north of the railway.

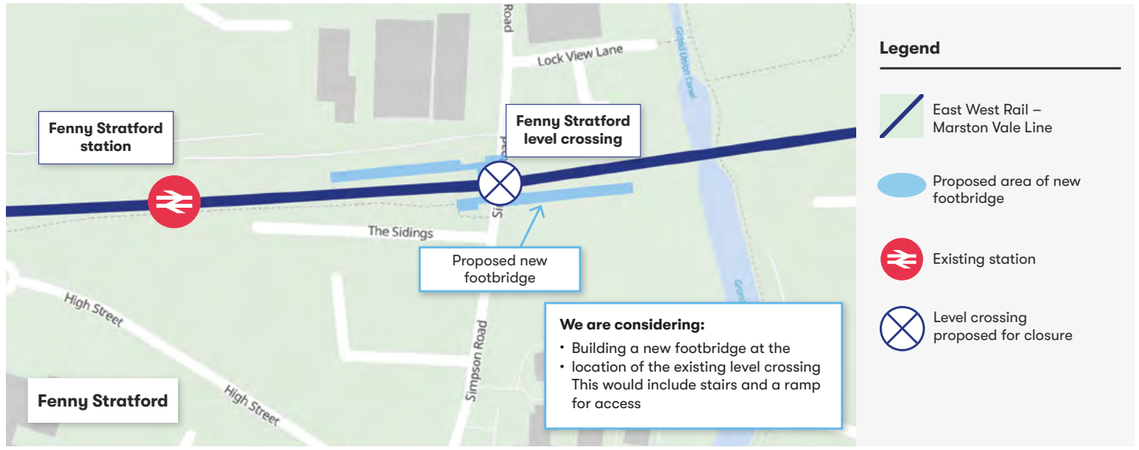


Figure: Pedestrians and others option 2: footbridge option

Pedestrians and others option 3: the diversion option

The diversion option re-routes a pedestrian route to run from Simpson Road along the south of the railway, underneath the railway bridge which goes over the Grand Union Canal using the canal towpath to connect to Lock View Lane and Simpson Road.

The new section of path from Simpson Road to the canal would be located on land already owned by Network Rail. We would upgrade and provide new lighting on the section of the canal towpath that would be used for the diversion.

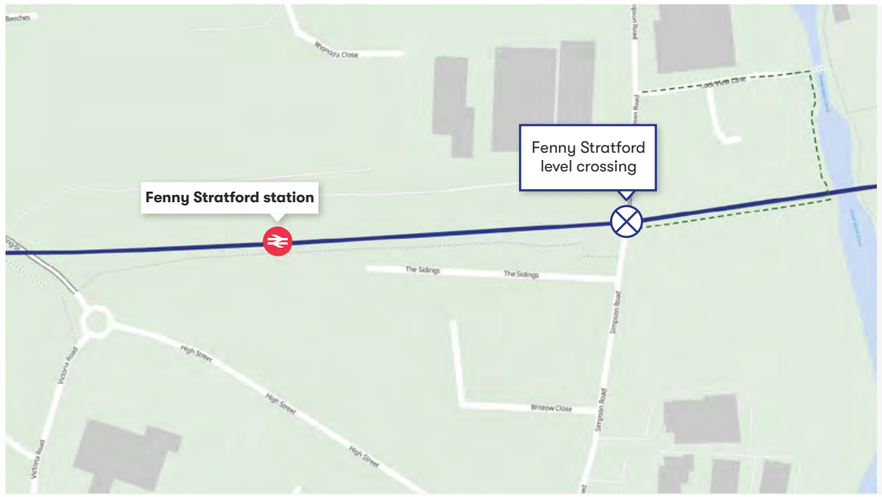


Figure: Pedestrians and others option 3: diversion option

We are considering the following, along with your consultation feedback, as we develop our proposals:

- Any potential visual impacts of a new footbridge
- The need to acquire and demolish commercial property to create space to build a new footbridge
- Any potential impact on canal-side properties from increased lighting and foot traffic if the footpath is diverted along the canal towpath.

Bow Brickhill (V10 Brickhill Street)

Bow Brickhill level crossing is located on the south side of Milton Keynes, immediately to the south of Caldecotte and Tilbrook. This is an important road for connecting areas south of Milton Keynes to the A5 and A4146 Walton Park roundabout.

We would close the existing level crossing. There are four options for a new road and bridge across the railway for V10 Brickhill Street.

Figure: Proposed diversion options at Bow Brickhill level crossing

Figure: Bow Brickhill option 1

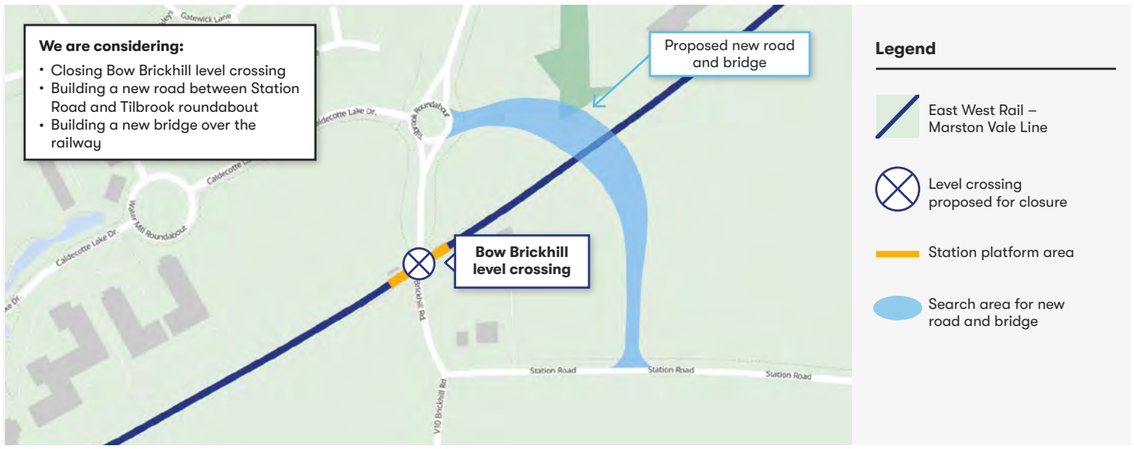


Figure: Bow Brickhill option 2

Option 1:

Bow Brickhill option 1 would involve a new road from Station Road roundabout, to the south of the railway, to the Water Mill roundabout on Caldecotte Lake Drive. The new bridge over the railway would be to the west of the existing level crossing.

Option 2:

Bow Brickhill option 2 would provide a new road between Station Road and Tillbrook roundabout. There would be a new junction on Station Road, and a new exit would be added to Tillbrook roundabout. The new road bridge would go over the railway to the east of the existing roundabout.

Option 3:

Bow Brickhill option 3 would provide a new road between Station Road and Tillbrook roundabout. There would be a new junction on Station Road, and a new exit would be added to Tillbrook roundabout. The new railway would be on a bridge over that new road, to the east of the existing level crossing.

Figure: Bow Brickhill option 3

Option 4:

Bow Brickhill option 4 would provide a new road bridge over the railway immediately adjacent to the existing level crossing. Changes would need to be made to the junction between Brickhill Street and Caldecotte Lake Drive and the junction between Brickhill Street and Station Road. This could mean closing V10 Bow Brickhill Road for a period of time.

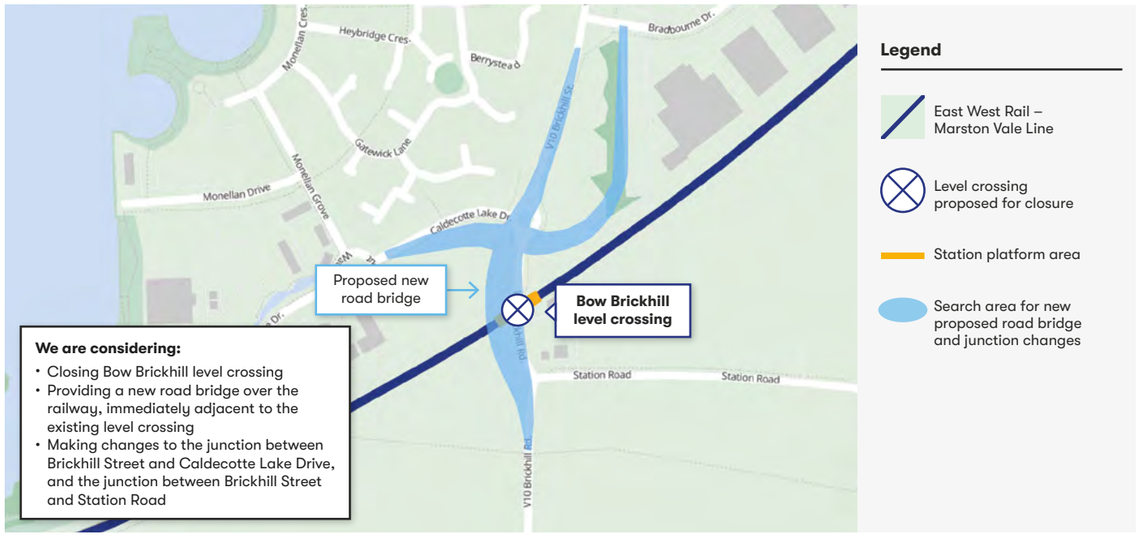


Figure: Bow Brickhill option 4

We are considering the following, along with your consultation feedback, as we develop our proposals:

- Land that may need to be acquired. For options 1 and 4 there is existing planning permission to build a commercial building on the land we would need
- Ecology and other environmental impacts for the new road that would need to be built
- Options 1, 2 and 3 involve gradients and road curvatures that may not meet the standards that usually apply to this type of road
- For option 3, drainage and flooding need to be considered as the road passes under the railway and would be lower than the existing road.

Browns Wood

Browns Wood level crossing is a foot crossing which connects an area of open space to Station Road for Bow Brickhill village. We understand consideration has been given to extending the V11 Tongwell Street to cross the railway at the location of the existing Browns Wood foot level crossing, which would allow pedestrians (and other traffic) to cross the railway. Should firm proposals be brought forward we will consider how they can be integrated with our Project. For now, we would propose three options for crossing the railway at Browns Wood.

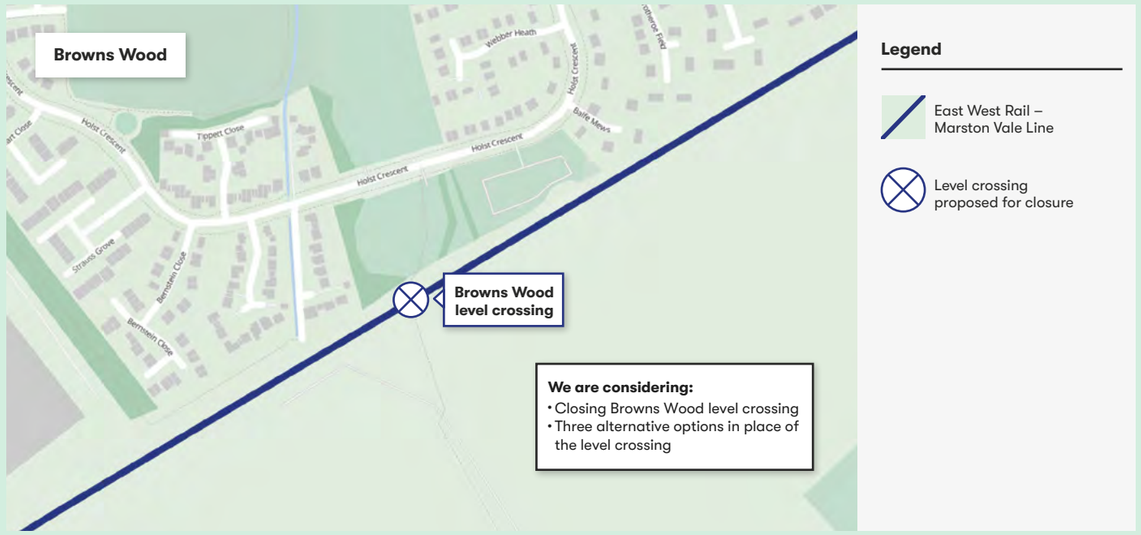
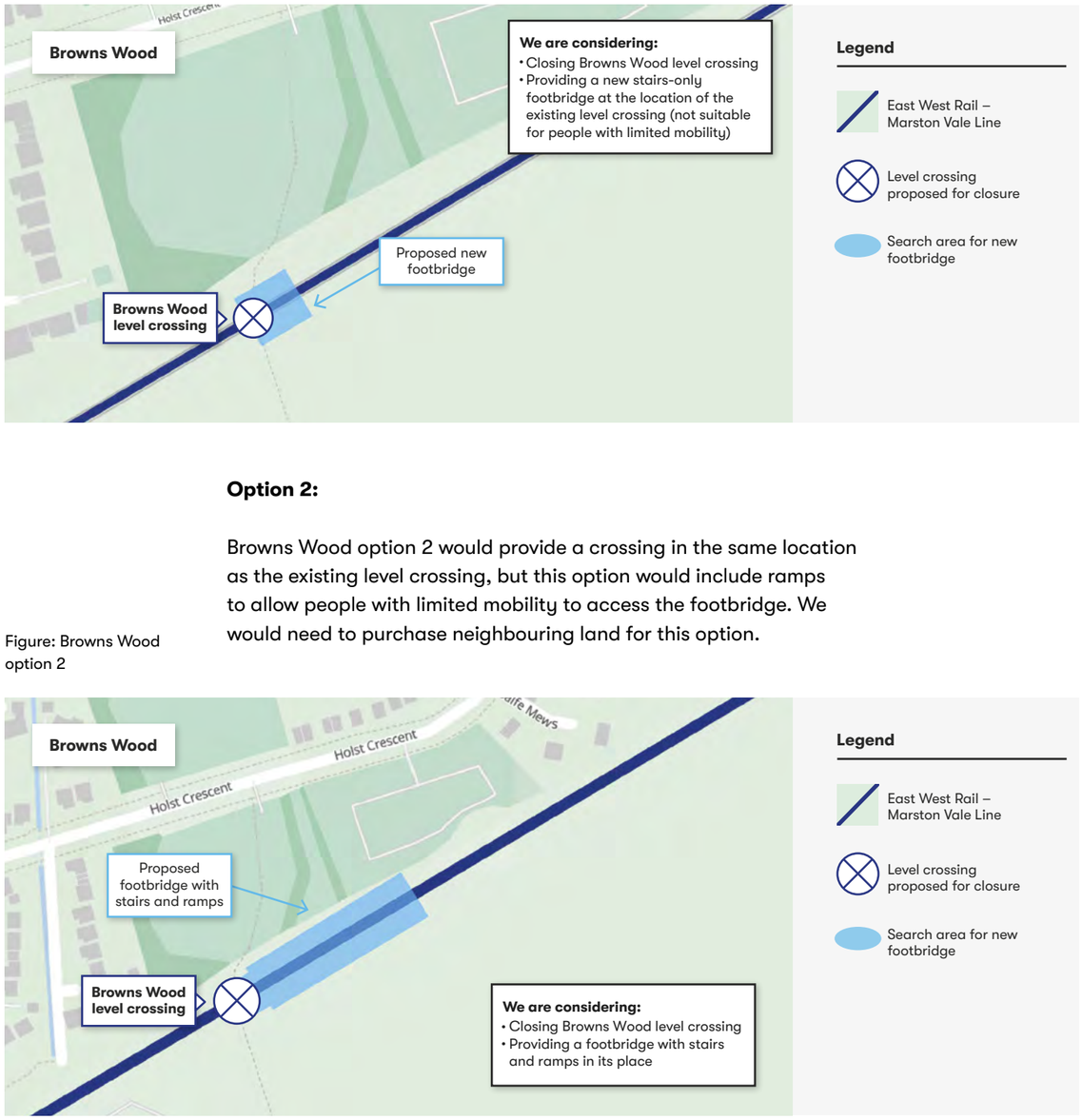


Figure: Location of Browns Wood level crossing

Option 1:

Browns Wood option 1 would provide a new stairs-only footbridge at the location of the existing crossing, which is appropriate as the existing footpath which provides access to the bridge is not suitable for people with limited mobility. We might not need to purchase any land and could use existing railway land for this option.

Figure: Browns Wood option 1



Option 2:

Browns Wood option 2 would provide a crossing in the same location as the existing level crossing, but this option would include ramps to allow people with limited mobility to access the footbridge. We would need to purchase neighbouring land for this option.

Figure: Browns Wood option 2

Option 3:

Browns Wood option 3 involves a new footpath under the railway at the location of the existing level crossing. We would need to purchase land outside of the existing railway boundary, including an area of open space land to the north of the railway.

Figure: Browns Wood option 3

We are considering the following, along with your consultation feedback, as we develop our proposals for Browns Wood:

- Option 1 would not be accessible to people with limited mobility
- Option 2 would require more vegetation removal, with more visual impacts than option 1
- Option 3 would have the least visual impact, but would have a greater impact on the use of the open space land
- Option 3 would also need to consider drainage arrangements for the underpass that would be built under the railway
- Option 3 requires more land and includes an underpass and therefore could be more expensive.

Pony

Pony Crossing is a foot crossing and bridleway that connects the Old Park Farm residential area with bridleways through the rural land to the south. The area to the south of the railway is identified in the Milton Keynes Local Plan as an area for future development. We have identified three options for Pony crossing.

Figure: Location of Pony crossing

Option 1:

Pony option 1 would involve a new bridge over the railway at the site of the current crossing. The bridleway would be ramped to the north and south to allow for all forms of non-vehicular use. To the north of the railway this ramp would be made up of a steel structure, with a sound-deadening non-slip surface.

To the south of the railway, we would use an earth embankment to build the ramp to the bridge over the railway; we would need to purchase land either side of the bridleway.

Figure: Pony option 1

Option 2:

Pony option 2 is very similar to Pony option 1, except the bridleway ramp to the north of the railway would be moved away from residential properties by placing it in agricultural land to the east. We would need to purchase part of that agricultural land.

Figure: Pony option 2

Option 3:

Pony option 3 would provide an underpass in the same position as the current crossing. The underpass would be of sufficient height to accommodate horse riders.

Figure: Pony option 3

We are considering the following, along with your consultation feedback, as we develop our proposals:

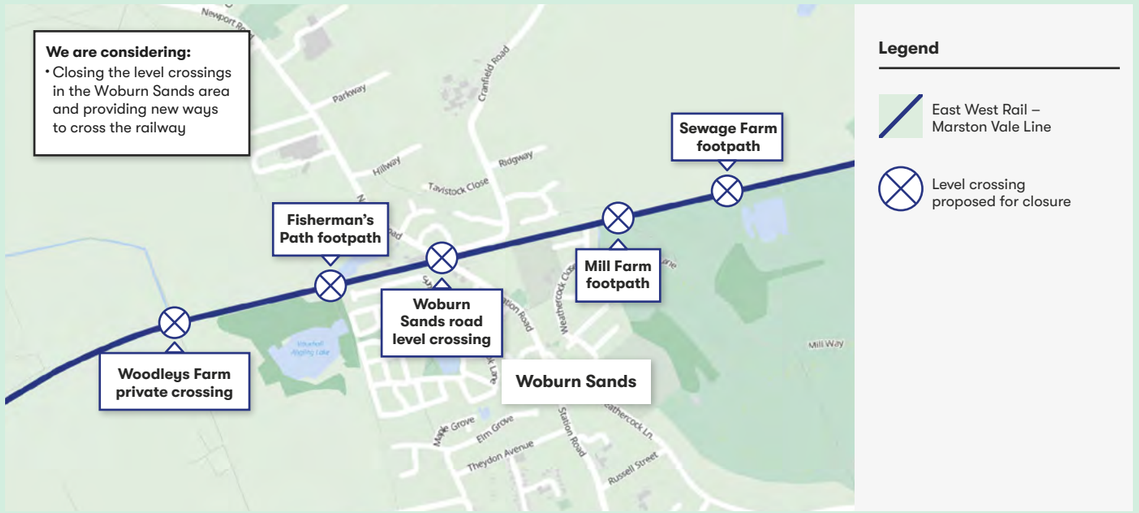
- Options 1 and 2 would have visual impacts for adjacent residential properties
- Options 2 and 3 would be quieter than option 1 for the residents in the adjacent properties, with option 3 being the quietest option
- Option 3 involves siting the bridleway much deeper than its current level and would require drainage solutions, such as pumps
- We would need to purchase more agricultural land for options 2 and 3.

Woburn Sands: existing crossings

There are a number of crossings in Woburn Sands that would need to close. The existing rights of way are close together and we would propose options which would replace the crossings below, while maintaining connectivity across the railway.

- Woodleys Farm private crossing: to the west of Woburn Sands enabling access between two parts of a farm
- Fisherman's Path footpath: immediately to the west of Woburn Sands, where Woburn Sands Footpath No. 2 leads from Bow Brickhill Road (south of the railway) towards Wavendon (north of the railway)
- Woburn Sands road crossing: where the A5130 Station Road / Newport Road crosses the railway
- Mill Farm footpath: immediately to the east of Woburn Sands where a public footpath (Aspley Guise Footpath No. 3) links Vandyke Close on the north of the railway to a network of paths leading to Aspley Guise to the south of the railway This path forms part of the Milton Keynes Boundary Walk
- Sewage Farm footpath: to the east of Woburn Sands where a public footpath (Aspley Guise Footpath No. 13) crosses the railway. This footpath connects into the wider footpath network to the south of the railway, but to the north of the railway the footpath ends in a field after around 300m.

Figure: Locations of level crossings in Woburn Sands

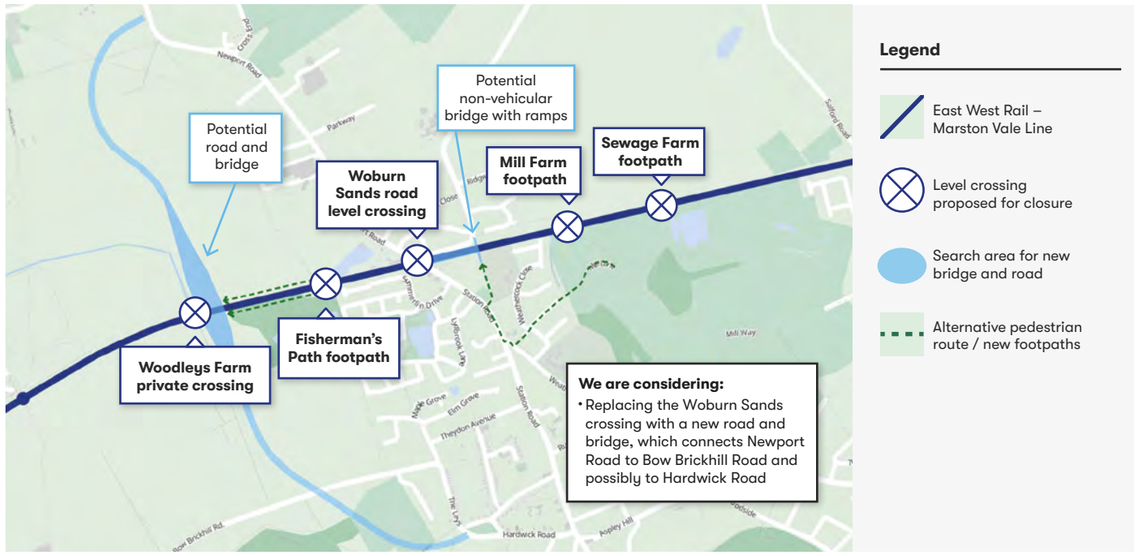


Option 1: new road around Woburn Sands and new School Crossing bridge.

This would replace the Woburn Sands crossing with a new road to the west of Woburn Sands connecting Newport Road and Bow Brickhill Road. We would build a new bridge over the railway near the existing Woodleys Farm level crossing.

There is also an opportunity to extend the new road south of Bow Brickhill Road to connect to The Leys south of Woodland Way.

Figure: Option 1: Woburn Sands new road



The following crossings would be closed and diverted to cross the railway using the new bridge:

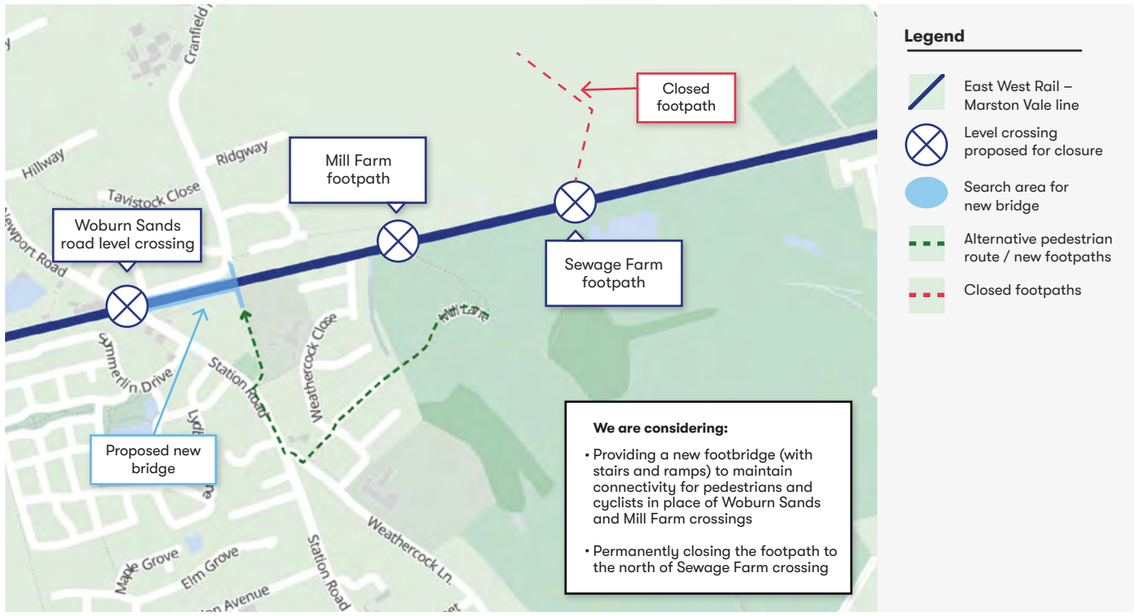
- Woburn Sands (Newport/ Station Road)
- Woodleys Farm private crossing
- Fisherman's Path footpath.

A new bridge would be created at the former School Crossing location, connecting Cranfield Road with the footpath adjacent to the school which connects to Station Road. This would include accessible ramps for all non-vehicular users of the crossing. The bottom end of the ramps would be close to Woburn Sands level crossing. Mill Farm foot crossing to the east of Woburn Sands would be redirected to use this bridge.

This crossing would replace the following existing rights of way:

- School Crossing footpath (already closed)
- Mill Farm footpath
- The pedestrian route over Woburn Sands crossing.

Figure: Option 1: new School Crossing bridge



Sewage Farm crossing (to the east of Mill Farm crossing) and the footpath to the north of the crossing would be closed. The footpath does not lead anywhere and we haven't established any reason for its use.

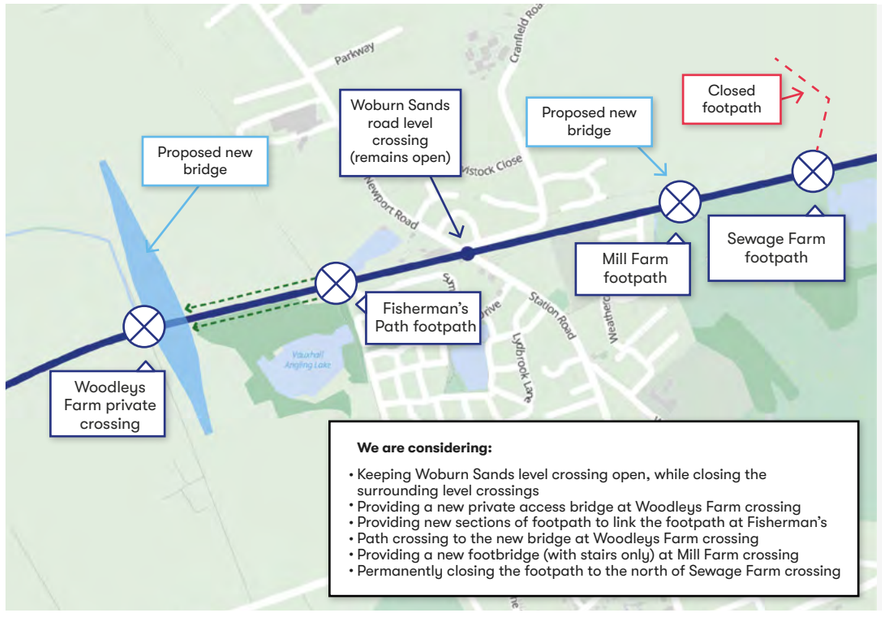
Option 2: keeping Woburn Sands crossing with a new Woodleys Farm bridge.

This option would retain the existing level crossing on Station Road. The level crossing would be closed, and traffic stopped, for as much as 40 minutes in an average hour because of the increased frequency of trains. A bridge would not be provided at the site of School Crossing. People who previously used this crossing would be diverted via Woburn Sands crossing (as is currently the case).

As part of this option, we would provide a bridge close to Woodleys Farm to replace that crossing and the public footpath from Fisherman's Path would also be diverted over this bridge. We would provide a footbridge with steps at the site of Mill Farm crossing.

As with option 1, Sewage Farm crossing (to the east of Mill Farm crossing) and the footpath to the north of the crossing would be closed.

Figure: Option 2: retention of Woburn Sands crossing and new Woodleys Farm bridge



We are considering the following, along with your consultation feedback, as we develop our proposals:

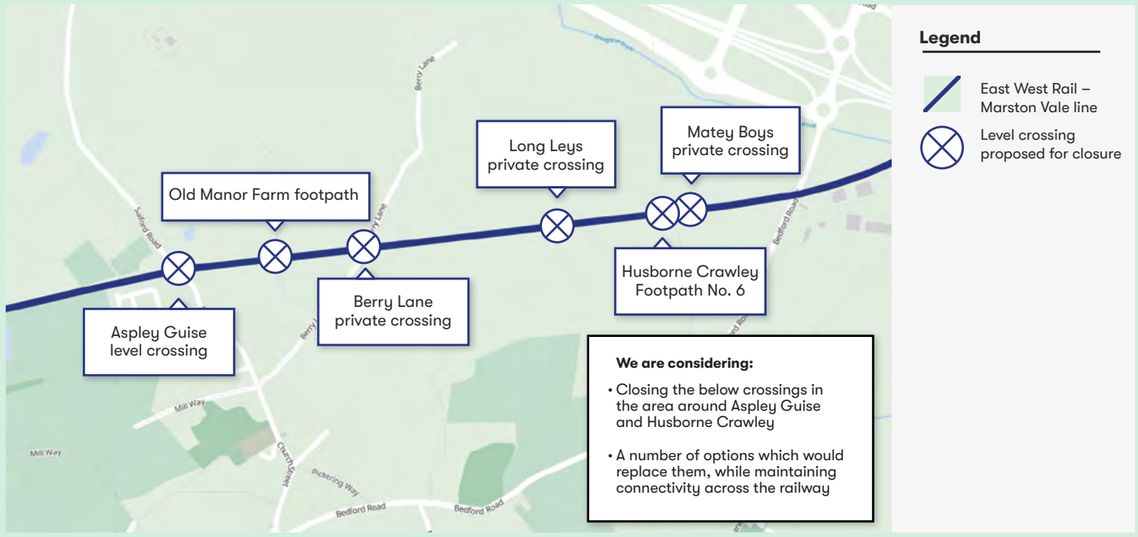
- We would need to acquire a large area of agricultural land for option 1, but much less for option 2
- For option 1, we would also need to acquire an area of land adjacent to the railway that forms part of a business
- Option 1 would provide a new connection that could support future development proposed as part of the Milton Keynes south east expansion area
- Option 1 would likely reduce traffic through Woburn Sands on Newport Road/Station Road and High Street. However, it is likely to increase traffic on Hardwick Road and on The Leys south and east of Woodland Way. If the additional section of new road south of Bow Brickhill Road was not provided, traffic would also be increased on the eastern part of Bow Brickhill Road and the remainder of The Leys north of Woodland Way
- An extended option 1 that connects to The Leys could require the acquisition of allotments
- Option 2 may result in significant transport impacts for Woburn Sands as traffic and pedestrians on Newport Road/Station Road would be delayed by the more frequent closing of the level crossing.

Aspley Guise and Husborne Crawley level crossings

There are a number of crossings in the area around Aspley Guise and Husborne Crawley that would need to close. These crossings are close together and we would propose options which would replace the crossings listed below, while maintaining connectivity across the railway.

- Aspley Guise, Salford Road: a public highway where Salford Road crosses the railway. Aspley Guise station straddles the crossing, which provides the sole means of access between the station's two platforms
- Old Manor Farm footpath: linking Aspley Guise, to the south of the railway, across the railway to a network of paths to the north of the railway connecting to Lower End, Salford and a range of other destinations (Aspley Guise Footpath No. 12)
- Berry Lane private crossing: where a private vehicle access road (known as Berry Lane) crosses the railway
- Long Leys private crossing: to the north east of Aspley Guise, connecting two parts of a farm
- Husborne Crawley Footpath No. 6: where a public footpath linking Husborne Crawley to Salford Road, to the north of the M1, crosses the railway
- Matey Boys private crossing: to the west of Bedford Road, connecting two parts of a farm.

Figure: Locations of level crossings in Aspley Guise and Husborne Crawley



Option 1: new road around Aspley Guise village to the east.

There would be a new junction to the north of the existing level crossing, where the new road would join Salford Road. To the south of the existing level crossing, the new road would join Salford Road south of Berry Lane. A new bridge over the railway would be built at the location of the existing Manor Farm crossing.

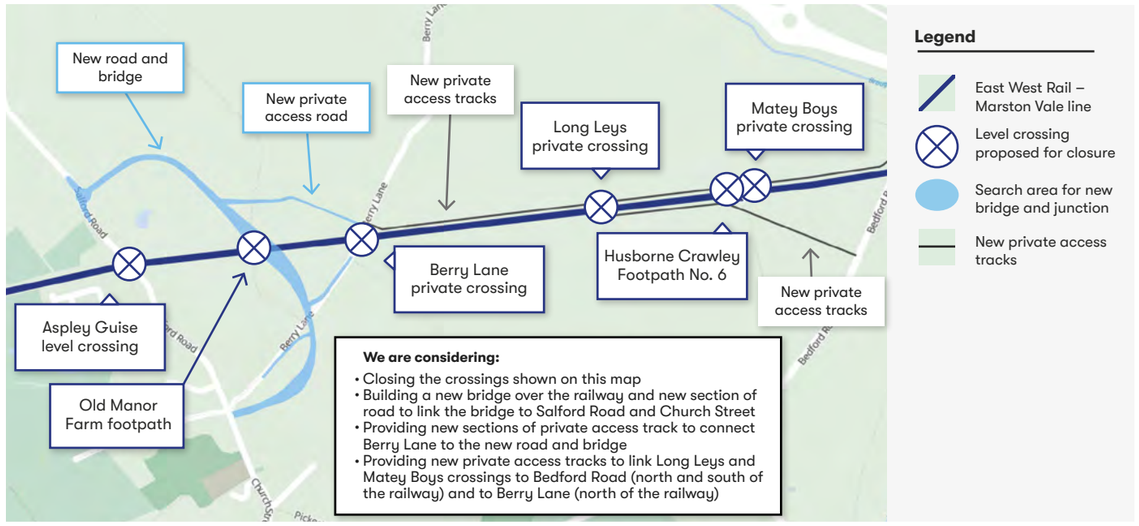
The following crossings would be closed and redirected to use facilities on the new road:

- Aspley Guise (Salford Road)
- Old Manor Farm footpath (Aspley Guise Footpath 12)
- Berry Lane private crossing
- Long Leys private crossing.

A new footbridge would replace Husborne Crawley Footpath No. 6 foot crossing. Given that the footpath leading to this crossing is unsurfaced and runs across agricultural land, we would provide stairs to the new footbridge and no ramps.

The Matey Boys private crossing would be closed, with a private access track provided to Bedford Road for users to cross the railway.

Figure: Option 1: Aspley Guise new road



Option 2: Aspley Guise closure with no replacement.

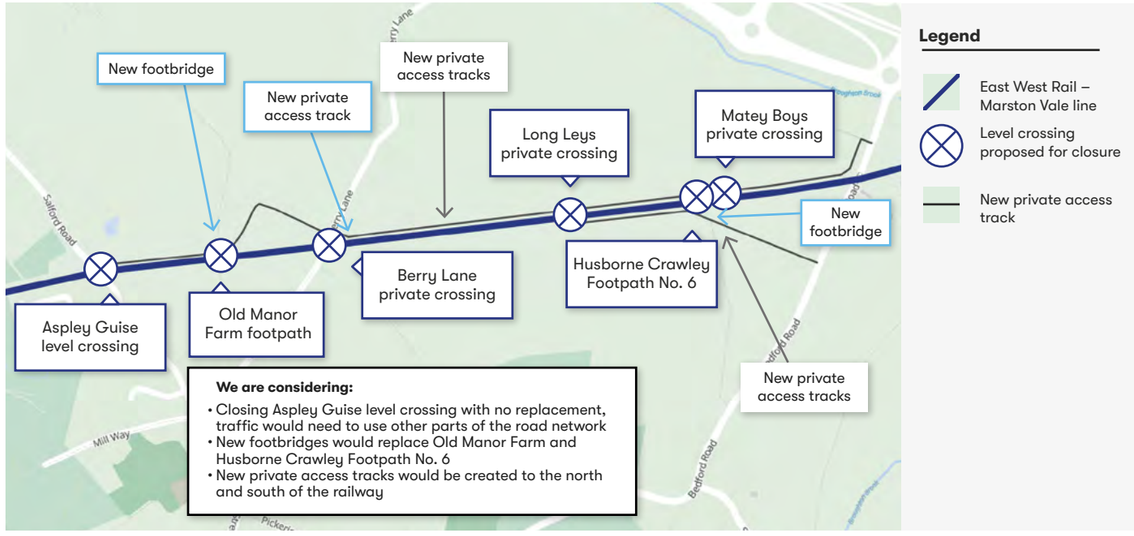
Traffic would need to use other parts of the road network to cross the railway away from Aspley Guise, such as in Woburn Sands or at Bedford Road.

New footbridges would replace Old Manor Farm and Husborne Crawley Footpath No. 6 foot crossing. Given that the footpath leading to these crossings are unsurfaced and run across agricultural land, we would provide stairs to the new footbridge and no ramps.

Berry Lane, Long Leys and Matey Boys private crossings would be permanently closed, and new private access tracks would be provided:

- Linking Berry Lane to Salford Road on the north side of the railway
- Running between Berry Lane and Bedford Road on the north side of the railway
- Running between Bedford Road and the field from which Long Leys level crossing is accessed on the south side of the railway.

Figure: Option 2: Aspley Guise closure with no replacement on Salford Road



We are considering the following factors, along with your consultation feedback, as we develop our proposals:

- Option 1 would require us to purchase more agricultural land than option 2, and we may also need to acquire some land from up to two residential properties
- Option 1 is partly located in the green belt; this means we would need to demonstrate that it preserves the openness of the green belt and that this location is required owing to very special circumstances. We would also have to demonstrate this for option 2, although this is likely to have less impact
- Option 2 would mean that local people would have further to travel to cross the railway, but many car journeys would take no longer via the alternative routes
- If Apsley Guise station is retained a new footbridge would be required at the station to provide access between the two platforms. The precise location and arrangement of the footbridge would be considered at the next stage of design development and would be set out in the next consultation.

Husborne Crawley Footpath No. 10 and Station Road in Ridgmont level crossings

Husborne Crawley Footpath No. 10 crosses the railway on the west side of the M1 bridge. This footpath links Husborne Crawley, to the south of the railway, with Station Road and Ridgmont station to the north. A further footpath (Brogborough Footpath No. 4) provides an onward link to the village of Brogborough via the Prologis Park Marston Gate industrial area.

Ridgmont level crossing takes Station Road across the railway next to Ridgmont station and the Ridgmont Station Heritage Centre. The A507 road runs parallel to Station Road and provides an alternative bridge over the railway. Both of our proposed options would close the level crossing on Station Road and vehicles would be redirected to use the A507 bridge.

Figure: Location of Husborne Crawley Footpath No. 10 and Ridgmont (Station Road) level crossings

Option 1: Husborne Crawley Footpath No. 10 diversion via A507.

Husborne Crawley Footpath No. 10 diversion via A507 would divert the footpath to use the A507 bridge and close the existing level crossing.

On the south side of the railway, the footpath would be diverted to run alongside the railway, under the M1 and A507 road bridges. Ramps would be provided to get up to the level of the A507 and down to the redirected footpath on the north side of the railway.

A new section of footpath would be created on the south side of the railway linking Station Road to the new ramp up to the A507 bridge, providing an alternative route over the railway for pedestrians that currently use Ridgmont crossing.

Figure: Option 1: Husborne Crawley Footpath No. 10 diversion via A507

Option 2: new footbridge at Husborne Crawley Footpath No. 10

A new stairs-only footbridge at the location of the existing crossing, which is appropriate as the footpath either side is not suitable for limited mobility users.

Figure: Option 2: new footbridge at Husborne Crawley Footpath No. 10

Option 3: Husborne Crawley Footpath No.10 diversion via Ridgmont Station Road

A new footbridge across the railway would divert the footpath under the M1 and A507 road bridges on the north and south side of the railway to Ridgmont Station Road. The new bridge would include stairs and ramps and could be used by pedestrians and other non-vehicular users of Station Road.

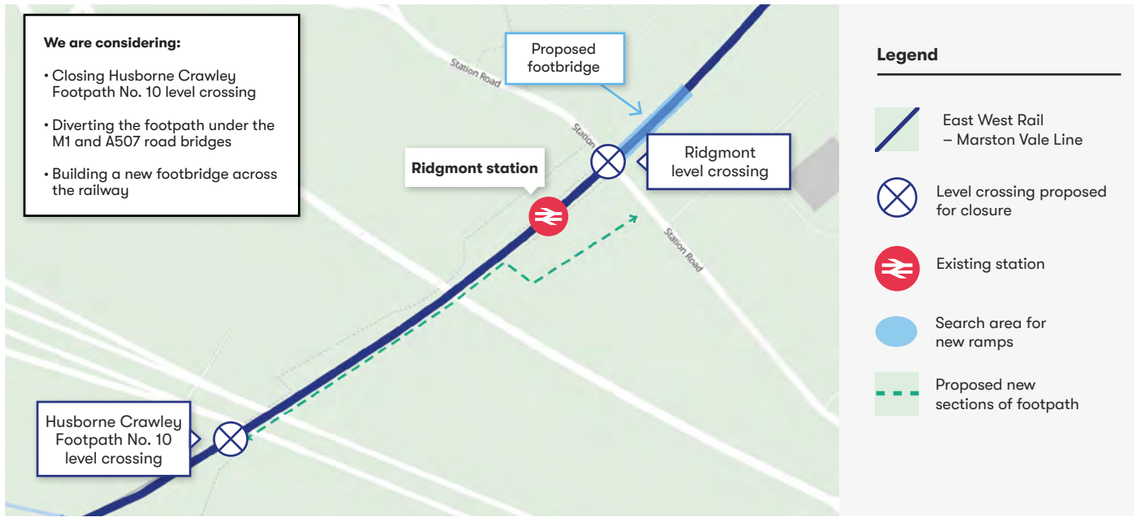


Figure: Option 3: Husbourne Crawley Footpath No.10 diversion via Ridgmont Station Road new footbridge

We are considering the following, along with your consultation feedback, as we develop our proposals:

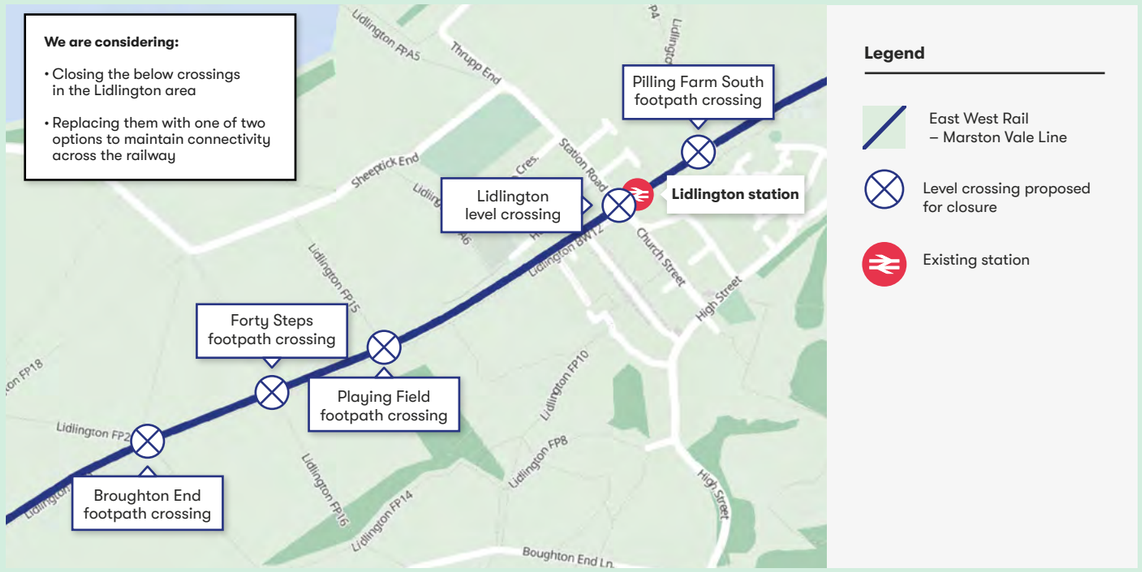
- We would need to purchase a small amount of agricultural land for all three options.
- Options 1 and 2 would result in a longer diversion for pedestrians who currently use Ridgmont crossing rather than Option 3.

Lidlington level crossings

There are a number of crossings in Lidlington and the surrounding area that would need to close. These crossings are close together and we would propose options which would replace the crossings listed below, while maintaining connectivity across the railway.

- Broughton End footpath: to the west of Lidlington where Lidlington Footpath No. 20 crosses the railway
- Forty Steps footpath: to the west of Lidlington where Lidlington Footpath No. 16 crosses the railway
- Playing Field footpath: to the west of Lidlington where Lidlington Footpath No. 15 crosses the railway
- Lidlington (Station Road / Church Street) public highway: where the main north-south road through the village of Lidlington crosses the railway
- Pilling Farm South footpath: on the northern edge of Lidlington, to the east of the current Lidlington station, where Lidlington Footpath No. 1 crosses the railway. This footpath forms part of the Marston Vale Trail.

Figure: Location of level crossings in Lidlington



Option 1: new road around Lidlington immediately to the west of Lidlington

The new road would run from Sheeptick End on the north side of the railway to Greensand Ridge to the south of the railway. The road would use a new bridge to cross the railway and the existing level crossing at Station Road / Church Street would be closed. There would be provision for walkers, cyclists and horse riders.

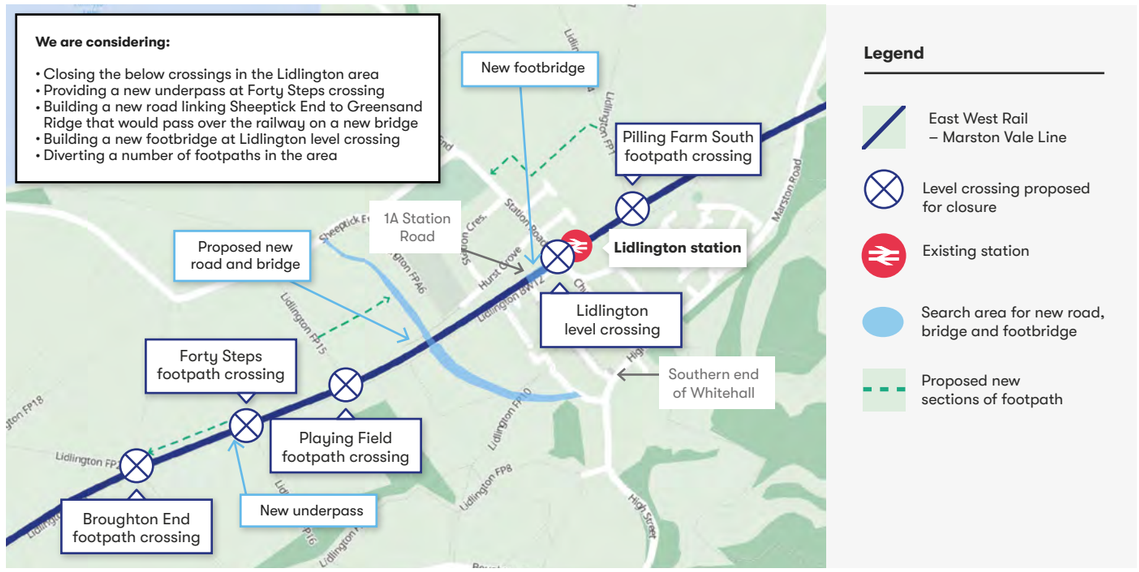
A new underpass beneath the railway would be provided for walkers at the site of Forty Steps crossing. Lidlington Footpath No. 16 would be diverted through this underpass. Lidlington Footpath No. 20 would be diverted along the north side of the railway from Broughton End crossing to the use the new underpass.

A new footbridge would be provided at the Lidlington (Station Road / Church Street) crossing to maintain a pedestrian route between the areas of Lidlington on either side of the railway.

To accommodate this bridge, we would need to:

- Demolish the house at 1A Station Road
- Reduce the width of Bye Road, and make it a one-way street between Church Street and Whitehall
- Carry out improvements to the southern end of Whitehall as it joins High Street.

Figure: Option 1: new road around Lidlington



We would propose a number of footpath diversions to reflect the change in location of crossing points on the railway:

- Lidlington Footpath No. 15 would be diverted on the north side of the railway to connect with the new road bridge
- Lidlington Bridleway No. 12 would be diverted to connect with the new road bridge and provide a link back to the south side of the Playing Field crossing
- We would consider closing Lidlington Footpath No. 17 from Sheeptick End to the Broughton End crossing
- Lidlington Footpath No. 1 would be diverted on the north side of the railway from a point close to the junction with Lidlington Footpath No. 4 to Station Road.

Option 2: retention of Lidlington Station Road level crossing

This option would mean that the existing level crossing on Station Road would remain where it is, and we would close all other crossings in the Lidlington Area.

A new underpass would be provided in place of the existing Forty Steps crossing.

Another new underpass would be provided roughly halfway between Playing Field crossing and the recently closed School Crossing. Lidlington Footpath No. 1 would be diverted on the north side of the railway from a point close to the junction with Lidlington Footpath No. 4 to Station Road.

We would propose a number of footpath diversions to reflect the changes of locations of crossing points on the railway:

- Lidlington Footpath No. 16 would be diverted through the new underpass at Forty Steps Crossing, and Lidlington Footpath No. 20 would be diverted along the north side of the railway from the site of Broughton End crossing to the use this new underpass
- We would consider closing Lidlington Footpath No. 17 completely from Sheeptick End to the Broughton End crossing

- To the north of the railway, Lidlington Footpath No. 15 would be diverted along the field boundary to the north of the playing fields and then via Lidlington Footpath 6A and the diverted section of Lidlington Footpath 6 to reach the new underpass between Playing Field crossing and the former School crossing
- To the north of the railway, Lidlington Footpath No. 6 would be diverted to run along the side of the railway to reach the new underpass between Playing Field crossing and the former School crossing
- Lidlington Footpath No. 1 would be diverted on the north side of the railway from a point close to the junction with Lidlington Footpath No. 4 to Station Road.

Figure: Option 2: retention of Lidlington Station Road level crossing

We are considering the following, along with your consultation feedback, as we develop our proposals:

- We would need to demolish a residential house and acquire more agricultural and other land in option 1, than option 2
- Option 1 would have greater environmental impacts due to the construction of the new road
- As option 2 involves keeping an existing level crossing, we would not meet our objective to improve safety
- Option 2, combined with the new train services, would mean the time the level crossing is closed could be as much as 40 minutes in every hour, causing delays to pedestrians and road users.

We have also considered an alternative solution that would divert the Marston Vale Line to the north of the village. This option would require up to 4km of new railway that would require the purchase of land and would entail the construction of a significant length of new cutting. There would be impacts on the environment and the potential loss of allotments in the area as well as changes to existing roads. More details on why we are not currently proposing this as an option are set out in section 7.6 of the Technical Report.

Millbrook (Station Lane)

Station Lane runs from Marston Moretaine, north of the railway, to Millbrook, south of the railway. Millbrook level crossing is next to Millbrook station and is used to cross between platforms. We propose closing Millbrook, with options for alternative access across the railway.

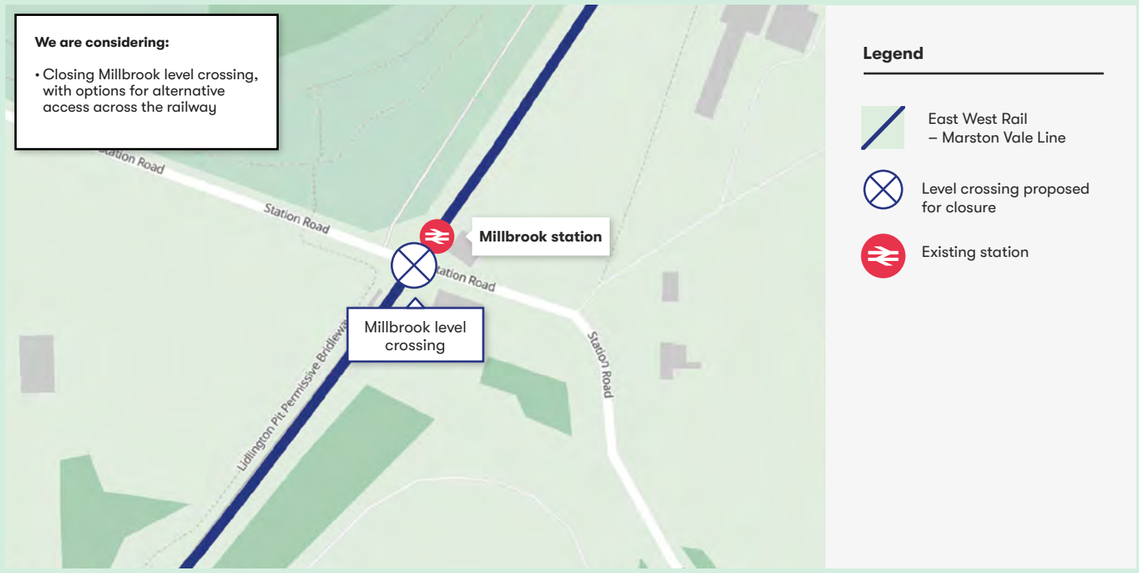


Figure: Location of Millbrook (Station Lane) crossing

Option 1: new road bridge over the railway south west of Millbrook station

Station Lane diverted via this bridge. This option would retain access to the residential and agricultural properties on the east and west of the railway.

Marston Moretaine Footpath No. 13, used for accessing Millennium Country Park prior to the recent closure of nearby Millennium Park crossing, would be diverted to the new road bridge.

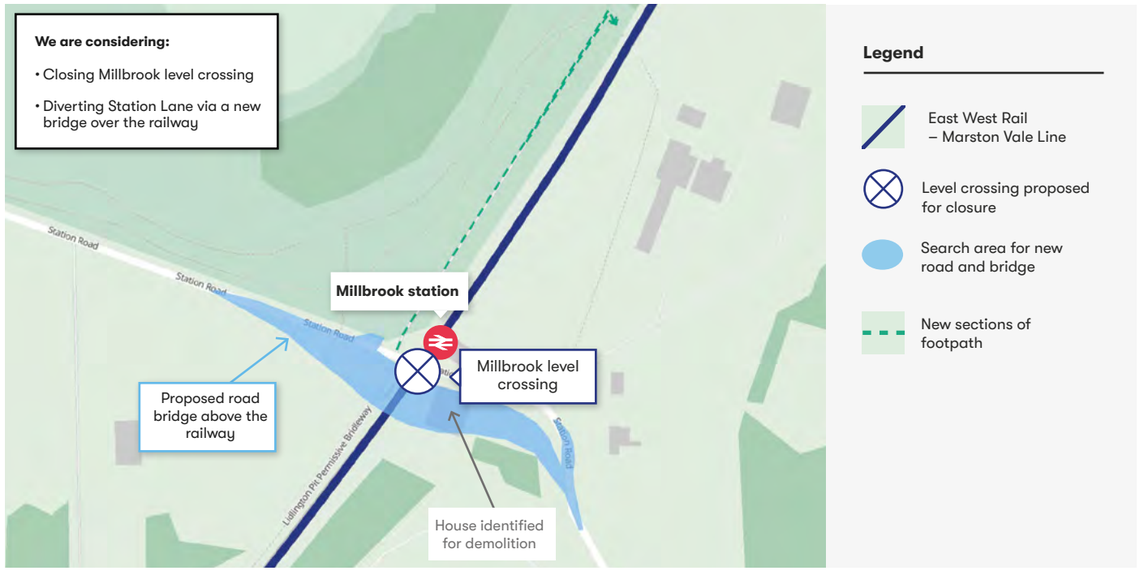


Figure: Option 1: new road bridge south west of Millbrook station

Option 2: a new road underpass south west of Millbrook station

A new road underpass south west of Millbrook station would provide a road crossing for Station Lane under the railway immediately south west of the current location. This option would retain access to the residential and agricultural properties on the east and west of the railway.

Marston Moretaine Footpath No. 13, used for accessing Millennium Country Park prior to the recent closure of nearby Millennium Park crossing, would be diverted to the new underpass.

Figure: Option 2: new road underpass south west of Millbrook station

Option 3: new road bridge over the railway to the north east of Millbrook station

A new road bridge over the railway to the north east of Millbrook station diverting Station Lane behind Pillinge Cottages and Station House to reach the new bridge. Access to residential and agricultural properties would be retained on the existing Station Lane. Access to the south of Pilling Farm would be provided from the new road.

Marston Moretaine Footpath No. 13, used for accessing Millennium Country Park prior to the recent closure of nearby Millennium Park crossing, would be diverted to the new road bridge.

Figure: Option 3: new road bridge to the north east of Millbrook station

We are considering the following, along with your consultation feedback, as we develop our proposals:

- Options 1 and 2 require demolition of a derelict house next to Millbrook crossing
- Option 2 would require enhanced drainage as the road would be lower than its current level
- Option 3 requires more land to be purchased, including a small part of the Millennium Country Park.

Green Lane level crossing

Green Lane crosses the railway south west of Stewartby village. Green Lane is one of two roads (the other being Broadmead Road) that connect Stewartby to Bedford Road (the former A421).

The former Stewartby Brickworks site is located either side of the railway to the north and north east of the crossing, and a development of approximately 1,000 houses is proposed for the site.

We have developed two options which take into account the possibility that Stewartby station is moved.

Option 1: new bridge to the north of Green Lane

We would provide a new bridge a short distance to the north of the current level crossing, and Green Lane would be realigned to pass over the new bridge.

So far, this option has been designed to work if Stewartby station were relocated (see concept 2 of train services and stations on the Marston Vale Line) but it could be modified to work if the station were retained.

Some existing accesses to Green Lane would need to be amended:

- The Water Sports Club would be accessed using a new road on the current Green Lane alignment
- The junction that provides access to Kimberley College would be changed
- The energy recovery plant would be accessed via a new road on the north side of the realigned Green Lane, which would pass under the new bridge to reach the plant.

Figure: Option 1: new bridge to the north of the relocated Stewartby station

Option 2: alternative new bridge to the north of Green Lane.

We would build a new public highway bridge over the railway to the north of the current crossing, with the east end of the realigned road slightly further to the north than option 1.

This option has been designed to work if Stewartby station were retained in its current location (see concept 1 of train services and stations on the Marston Vale Line) but it would also work if the station were relocated.

As with option 1, some existing accesses to Green Lane would need to be amended:

- Access to the Water Sports Club
- Access to Kimberley College
- Access to the energy recovery plant.

Figure: Option 2: new bridge to the north of the retained Stewartby station

We are considering the following along with your consultation feedback, as we develop our proposals:

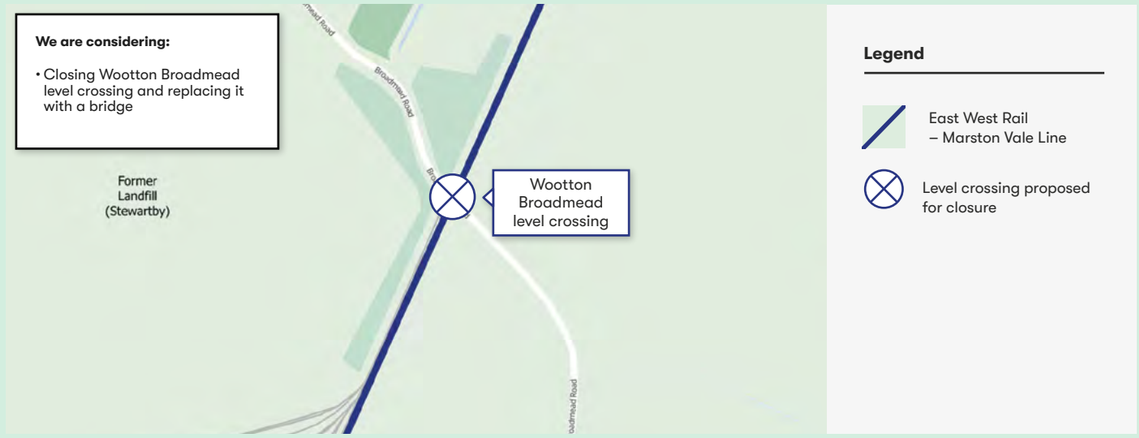
- Both options would require the acquisition of part of the former brickworks and a small area of Kimberly College grounds
- Option 2 would mean we would have to remove a small area of mature vegetation that would be retained with option 1.

Wootton Broadmead (Broadmead Road)

Wootton Broadmead crossing is a public highway level crossing north west of Stewartby. Broadmead Road is one of two roads (the other being Green Lane) that connect Stewartby to Bedford Road (the former A421).

Figure: Location of Wootton Broadmead (Broadmead Road) level crossing

We would close Wootton Broadmead level crossing and replace it with a bridge over the railway, and have developed two potential options.



Option 1:

Broadmead Road bridge to the north east would provide a new public highway bridge just to the north east of the existing level crossing. Broadmead Road would be realigned to pass over the new bridge.

Figure: Option 1: Broadmead Road bridge to the north east

Option 2:

Broadmead road bridge to the south west would provide a new public highway bridge just to the south west of the existing level crossing. Broadmead Road would be realigned to pass over the new bridge.

Figure: Option 2: Broadmead Road bridge to the south west

We are considering the following, along with your consultation feedback, as we develop our proposals:

- Option 1 would require the demolition of buildings at Randall's Farm which would be avoided in option 2
- Both options would require the removal of vegetation
- Option 2 would require construction within the former landfill site; this would be more hazardous and cost more than option 1
- Both options have been developed to be compatible with keeping the existing Stewartby station location or with a relocated Stewartby station.

Wootton Village

Wootton Village foot crossing is in a rural location to the north of Stewartby. A footpath (Stewartby Footpath No. 1) crosses the railway at the crossing.

We are only proposing one option to replace the existing foot crossing, which involves building a new footbridge at the same location as the existing crossing and diverting the footpath over the bridge. The bridge would have stairs, which is appropriate as the footpath either side is not suitable for limited mobility users, however we would ensure the new footbridge could accommodate ramps if these would be needed in the future.

Figure: Option for Wootton Village foot crossing

We are considering the following, along with your consultation feedback, as we develop our proposals:

- The visual impact of the bridge on the flat landscape
- The need to acquire adjacent agricultural land.

Kempston Hardwick

Kempston Hardwick crossing is a public highway level crossing at Manor Road, south west of Bedford. Manor Road is a single carriageway road linking Woburn Road (former A421) to Ampthill Road (B530) via the hamlet of Kempston Hardwick.

In February 2020, permission was given to Network Rail to close the level crossing and replace it with a bridge over the railway at the site of the crossing, however this has not yet taken place.

We have considered this option, plus two further options for this level crossing.

Option 1:

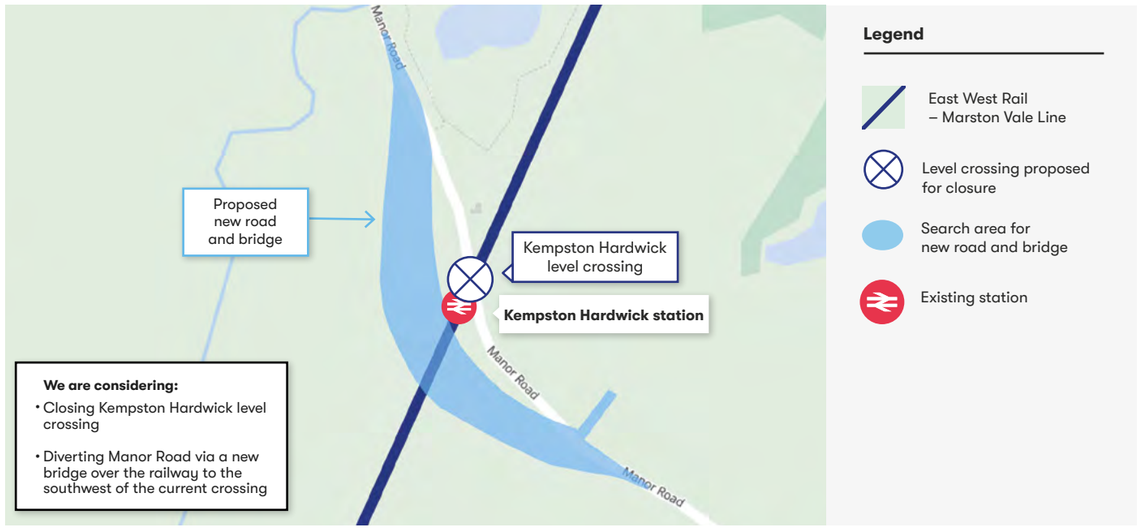
Previously consented bridge at the level crossing, diverting Manor Road over this bridge. This is the option that has already been given permission.

Figure: Option 1: Works already consented at the Kempston Hardwick level crossing

Option 2: bridge to the south west of the crossing.

Figure: Option 2: new road bridge to the south west of Kempston Hardwick level crossing

A new road bridge would be provided to the south west of Kempston Hardwick level crossing. We would divert Manor Road over this new bridge.



Option 3: bridge to the north east of the crossing.

Figure: Option 3: new road bridge to the north east of Kempston Hardwick level crossing

A new road bridge would be provided to the north east of Kempston Hardwick level crossing. We would divert Manor Road over the new bridge.

We are considering the following, along with your consultation feedback, as we develop our proposals:

- Both options 2 and 3 would need us to purchase more land than option 1
- Option 3 might have a slightly greater impact on residential properties due to the proximity of the new road
- Options 2 and 3 would allow Manor Road to remain open for most of the time the new bridge was being built.

Woburn Road

Woburn Road foot crossing is located on the south side of Bedford, where Kempston Footpath No. 1 crosses the railway. This footpath starts at the end of Chantry Road on the north west side of the railway and runs south west alongside the railway to reach the site of the crossing. On the south east side of the railway, it connects to Ampthill Road to the south of Bedford (via Footpaths Nos. 1A and 8, which form a continuation of Footpath No. 1).

In February 2020, Network Rail was granted permission to replace the level crossing with a footbridge over the railway and the watercourse at the end of Chantry Road, however this has not yet taken place.

We would propose an additional option for this crossing.

Option 1:

The previously consented footbridge would provide a new footbridge at the end of Chantry Road. The footpath would be diverted over this bridge.

Figure: Works already consented at Woburn Road level crossing

Option 2:

The alternative footbridge would shorten the length of diversion required for the footpath by turning the stairs on the south east side of the railway to face in the opposite direction.

Figure: New alternative proposal for Woburn Road level crossing

Both options require a similar amount of land.

We would like to know if you think we should implement our alternative proposal.

Bedford Carriage Sidings

Bedford Carriage Siding crossing is a private crossing just to the south of Ford End Road that is used for access to the railway sidings in this area.

We would propose some changes to the railway in Bedford that are described in the next chapter. These changes will affect this crossing and options for the crossing will be developed later.

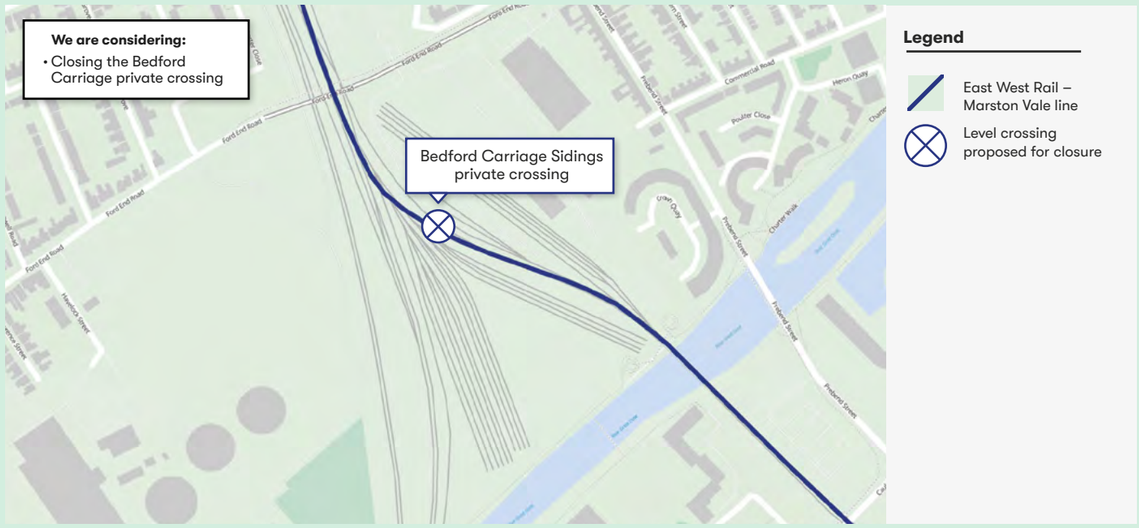


Figure: Bedford Carriage Sidings private crossing

Construction options for the upgrade of the Marston Vale Line

Figure: Proposed upgrades to the Marston Vale Line

Why do we need to do something?

The railway line between Bletchley and Bedford needs significant modernisation to enable the faster and more frequent trains connecting Oxford to Bedford and Cambridge. The duration and extent of the construction work that is required would be similar for any of the concepts and options that we have explained above.

Major improvements are needed over the full length of the railway between Bletchley and Bedford, irrespective of the precise concepts and options selected, and we would need to close parts or all of the railway line during construction and testing. Closing the railway for an extended period is known as a blockade. We have considered the existing plans that have been developed for this section of the railway and looked at whether it is possible to minimise the disruption of construction work on local communities.

Our options

Option 1: a series of short blockades

The first option could include the use of short blockades (up to 54 hours in length) to undertake defined work packages across a set period of time, which would vary depending on the works to be undertaken. The operational railway would be put back into service at the end of each of these blockades.

This approach is extremely labour and machinery intensive, inefficient, and generally requires weekend day and night working to maximise the time available, with associated effects on those who live nearby.

It also carries the risk of late return to service on a Monday morning. It is unlikely that the complete upgrade could be carried out in this way due to the complexity and level of works that need to be undertaken. The piecemeal approach would lead to an overall longer programme than other options and therefore prolong the period over which local residents would be subjected to construction-related disruption. This would also mean that services couldn't be introduced until much later.

It would require the substitution of rail services with road transport for each blockade, which may apply every weekend. The pattern of train and replacement bus services would change during the course of the works, which could be less easy for users to understand and be a deterrent to using the services.

Option 2: a prolonged blockade

The second option could include a full blockade of the Marston Vale Line which would, in effect, make the impacted railway line available as a safe construction site whilst the upgrade works are undertaken. This approach would improve overall efficiency through not having to close and open a railway after each short blockade, and it would also allow a more consistent approach to work hours. The majority of works would take place in the day, meaning less noise during nights and at weekends. There would be benefits in construction methodology, time and costs in this approach being taken relative to other options.

In this option there would be no rail services for the duration of the works, which would require alternative road transport to be provided for the duration of the closure. This would facilitate the provision of an easy-to-understand pattern of replacement services that would remain the same through most of the works. This is also likely to be the quickest and most efficient way to carry out the construction works to upgrade the railway.

Option 3: a mix of short and long blockades

The third option would be to undertake a mix of options 1 and 2, based on the elements of work required. This option could be inefficient and have a negative impact on time, cost and construction efficiency. It would be complicated to plan and deliver because of weather and other third-party influences. It would also require weekend works.

The times when blockades are applied would require alternative road transport, which would need to be different for each blockade. Weekend possessions could lead to an overall extension of the programme compared with option 2 and therefore an extension of the period over which local residents would be subjected to construction-related disruption.

We will include more detail on the proposals for constructing the enhanced railway in our next consultation.

Our considerations

We are considering the following, along with your consultation feedback as we develop our proposals:

- Minimising impact on customers and communities
- The long term benefits for transport users
- Overall affordability, capital costs and operating costs
- Ensuring current freight services can continue to operate
- Alignment with the wider railway strategy and other infrastructure
- Safety risk (during both construction and operation) – including the safety of staff accessing equipment for the purposes of servicing and repair
- Environmental impacts and opportunities – including any impacts on land and property (primarily in connection with the need to repair and improve the existing earthworks).

Bow Brickhill platform

Share your views

10. What do you think is important to consider when developing our proposals for the Bletchley and the Marston Vale Line area? In particular, what do we need to take account of:

a. In relation to the existing stations on the Marston Vale Line and whether they should be kept open or consolidated through closure and relocation

b. When we provide alternatives to existing level crossings

c. In delivering the improvements to the Marston Vale Line

d. In delivering works to Bletchley station

e. In relation to the impact of reinstating a second track between Bletchley and Fenny Stratford.

11. Please rank your preference for the proposed options for the existing stations on the Marston Vale Line:

Option 1: retain existing service (in a modified form) and introduce limited-stop Oxford to Cambridge services alongside it, calling at Woburn Sands and Ridgmont.

Option 2: provide a more frequent, faster service with some new and relocated stations, and improved community access.

12. Please tell us why you have ranked the proposed options for the existing stations above as you have and provide any other comments:

a. In relation to option 1, please provide any comments on the search area for the relocation of Ridgmont station and the new passing loops.

b. In relation to option 2, please provide any comments on the search areas for the relocated stations:

i. Woburn Sands (relocated)
ii. Ridgmont (relocated)
iii. Lidlington (relocated)
iv. Stewartby (relocated)

Please provide us with your view on the options for the level crossings on the Marston Vale Line.

Please provide us with your view on these options and let us know if there are any other issues that need to be considered:

13. Fenny Stratford: vehicular traffic – three options
14. Fenny Stratford: pedestrians and other non-vehicular road users – three options
15. Bow Brickhill (V10 Brickhill Street) – four options
16. Browns Wood – three options
17. Pony – three options
18. Woburn Sands existing crossings – two options
19. Aspley Guise and Husborne Crawley level crossings – two options
20. Husborne Crawley Footpath No. 10 and Station Road in Ridgmont level crossings – three options
21. Lidlington level crossings - two options
22. Millbrook (Station Lane) – three options
23. Green Lane – two options
24. Wootton Broadmead (Broadmead Road) – two options
25. Wootton village – one option
26. Kempston Hardwick – three options
27. Woburn Road – two options
28. Bedford Carriage Sidings – options to be developed at the next stage

29. Please rank your preference for the proposed options for the Marston Vale Line upgrade:

Option 1: series of short blockades

Option 2: a prolonged blockade

Option 3: a mix of short and long blockades

30. Please tell us why you have ranked the proposed Marston Vale Line upgrade options above as you have and provide any other comments

31. Please rank your preference for the proposed options for the Fenny Stratford additional track:

Option 1: building new bridges next to the existing bridges to carry the new track

Option 2: replacing the existing bridges with wider bridges that would carry both tracks

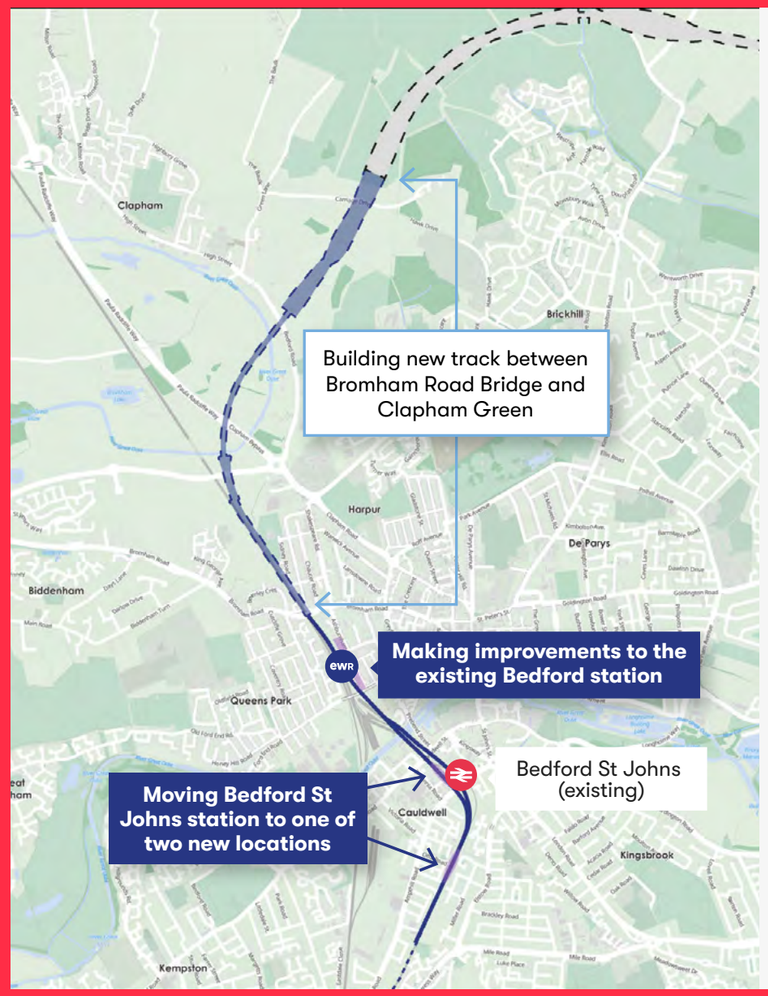
32. Please tell us why you have ranked the proposed Fenny Stratford additional track options above as you have and provide any other comments.

You can share your thoughts with us on this question by filling in our online feedback form at **www.eastwestrail.co.uk/feedback.** You can also send us your views by emailing us at **consultation@eastwestrail.co.uk** or writing to us at **Freepost EAST WEST RAIL.**

Alternatively, you can request a paper copy of the feedback form to be sent to you by:

- Ordering it online at **www.eastwestrail.co.uk/documents**
- Emailing us at **contact@eastwestrail.co.uk**
- Calling us on **0330 134 0067**.

Section C:
Bedford — improvements to the existing railway and a new section of railway



Legend

- East West Rail – Bedford Area
- Station used by East West Rail services
- East West Rail Alignment – North Bedford
- Indicative search area for proposed new Bedford station building and its access

Figure: Section C: Bedford

The map illustrations shown in this chapter are not indicative of the land acquisition. We will minimise this wherever possible, especially in relation to homes and other buildings.

Introduction

This section of the Consultation Document is about how we could improve the existing railway and stations in Bedford.

By introducing East West Rail services to Bedford, people in the town and surrounding area would benefit from direct connections east to Cambridge and west to Bletchley and Oxford, reinstating a vital route that was lost to local people in the last century.

New rail connections can bring many benefits such as growth, urban regeneration and less congestion on the roads. At EWR Co we are keen that the investment in the rail line brings lasting benefits to the town and surrounding areas. Supporting jobs and prosperity locally are important objectives for us and we are very interested to hear from you about how our proposals in the Bedford area can support the town and its residents.

This means looking at the rail network in the area again and making the changes that are needed to truly support the aspirations Bedford has for its future.

This section set out details for:

- **Bedford St Johns station:** a brand new Bedford St Johns station on a different section of track into Bedford
- **Bedford station:** building new track to Bromham Road Bridge and creating a new station, unlocking the potential for regeneration
- **North Bedford:** building new track in between Bromham Road Bridge and Clapham Green, creating the new connection to Cambridge.

Bedford St Johns

Why do we need to do something?

The railway at Bedford St Johns would be unable to accommodate the proposed EWR train services because:

- There is only one track on this part of the railway that limits capacity and Bedford St Johns station only has one platform
- The track is on a very tight curve, limiting the train speed to 15mph.

We expect to change the route alignment of the railway in this area, so that there is less of a curve, allowing trains to travel at a minimum of 30mph to achieve faster overall journeys along the route alignment. This means moving the existing location of Bedford St Johns station.

More details on how we have considered this area is available in section 8.3 of the Technical Report.

Bedford St Johns railway alignment and station location options

We have considered several potential solutions for the location of Bedford St Johns station and realigning the railway in this area. We are consulting you on two options which have the greatest merit:

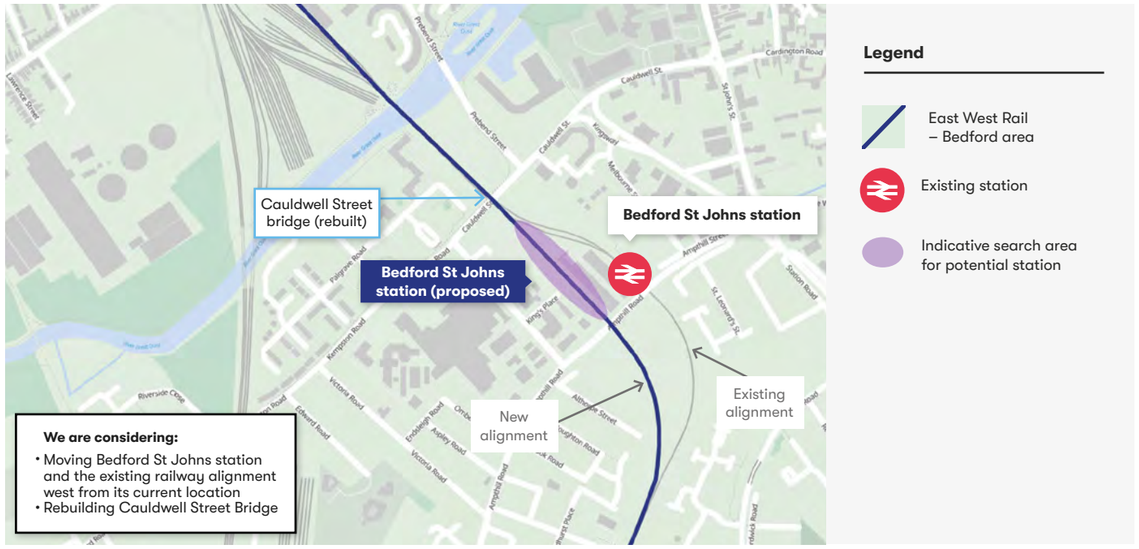
- **Option 1**: a brand new station to the west of its existing location, using the existing railway bridge across the River Great Ouse
- **Option 2**: a brand new station to the south of its existing location and building a new railway bridge across the River Great Ouse.

Option 1: relocating Bedford St Johns to the west

The new railway alignment in this option would move to the west from its current location and run beneath Ampthill Road and Cauldwell Street. Cauldwell Street Bridge would need to be rebuilt, as is the case with option 2, as it isn't high enough for our trains to pass under. This new railway alignment would use the existing railway bridge over the River Great Ouse.

Bedford St Johns station would be relocated to the west, between Ampthill Road and Cauldwell Street.

Figure: Option 1: relocating Bedford St Johns to the west



Option 2: relocating Bedford St Johns to the south

The new railway alignment in this option would run beneath Ampthill Road and Cauldwell Street. As with option 1, Cauldwell Street Bridge would need to be rebuilt, as it isn't high enough for our trains to pass under. This new railway alignment would require a new railway bridge over the River Great Ouse.

Bedford St Johns station would be relocated to the south west on the existing railway alignment, close to the Ampthill Road – Elstow Road Pedestrian Link bridge.

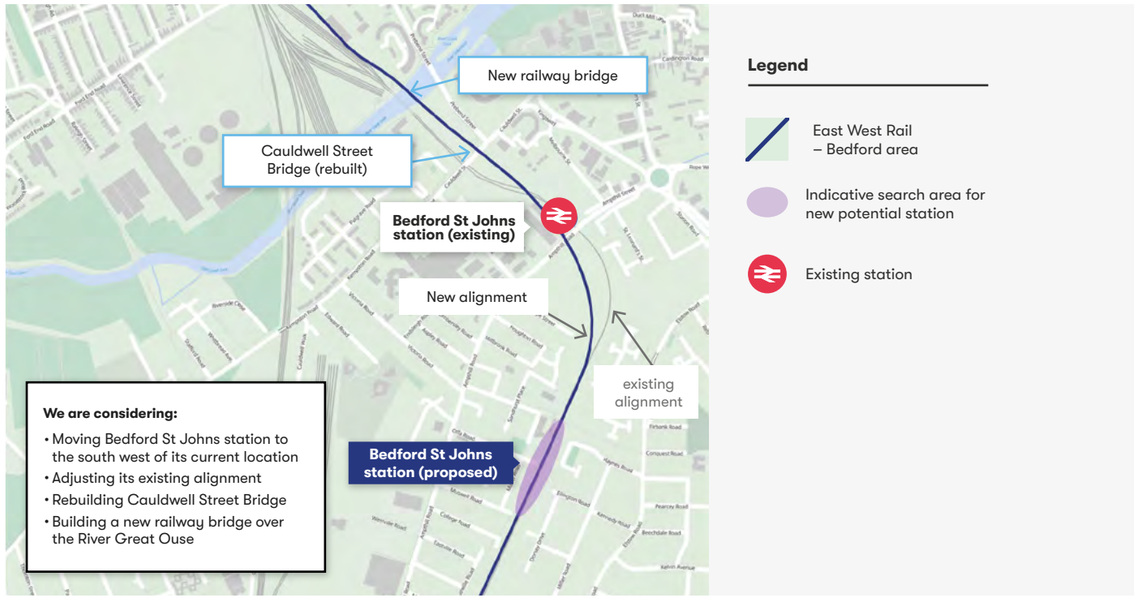


Figure: Option 2: Relocating Bedford St Johns to the south

Our considerations

We have carried out a preliminary assessment of these options and will use your response to the consultation to inform the next stage of design work. We have considered the options using factors including:

- The costs of building the new alignment and relocating the station
- How the options align with Bedford Borough Council's Local Plan
- Potential environmental impacts
- The location of the station in relation to key sites in the area. For instance, the location of the station under option 1 is very close to the hospital; option 2 would move the station further from the hospital into a residential area.

Based on these considerations, we currently think that option 1 is better than option 2. The table below sets out the factors we have considered including advantages and disadvantages for each option. We are considering the following, along with your consultation feedback, as we develop our proposals. We will also assess the environmental impacts of the preferred option and report on its impacts at the next stage of consultation.

Assessment Factors	Option 1: relocating Bedford St Johns to the west	Option 2: relocating Bedford St Johns to the south
Capital costs	Option 1 would be less disruptive. At Cauldwell Street, option 1 would be slightly less costly than option 2 to construct. Option 1 would be a substantially less expensive option overall.	Option 2 would be significantly more complex and disruptive to construct than option 1, especially given the need for a new bridge over the River Great Ouse.
Transport user benefits	Option 1 would allow trains to travel at speeds up to 40mph. This is quicker than the existing railway and meets the key outputs required for the Project (30mph).	Option 2 offers the potential for trains to travel at up to speeds of 60mph, compared to the maximum 40mph delivered by option 1. However, this would not be achieved by trains stopping at the relocated Bedford St Johns station.
Short-distance passenger services and connectivity to support commuting travel into key employment hubs (current and future)	Option 1 would provide commuting opportunities to workplaces both in the St Johns area (including those to be developed under the new Local Plan) and at the nearby Bedford Hospital and local schools.	Option 2 would provide better access to the station from residential areas between Elstow Road and Ampthill Road, and therefore offer a commuting opportunity to central Bedford, especially if the area around Bedford station is developed for commercial use.
Consistency with Local Plan	By making use of existing bridges, in addition to reducing the capital cost, option 1 increases the size of the development area to the north east of the alignment, which is included in the Local Plan. It also provides good access from the station to the hospital and offers integration opportunities with future developments.	Option 2 performs less well compared to option 1, as the relocation of Cauldwell Street Bridge and realignment of the local roads would reduce the land available for development. Relocating Bedford St Johns station to the south means it would be in a residential area and would not be as advantageous in supporting development in the Local Plan.
Environmental impacts and opportunities	Option 1 would mean the station could be integrated into new developments, potentially mitigating noise and visual impacts.	Option 2 would mean constructing the station in a residential area, which would be likely to have greater noise and visual impacts.

Bedford station

Why do we need to do something?

Bedford station is simply not able to accommodate the new services which EWR would bring to the town. In redesigning the station, there would also be an opportunity to support the kind of economic growth which best reinforces the aspirations of communities and local stakeholders.

To connect the town with both Oxford and Cambridge, we would run trains through the station, leading to far more trains and passengers using the station. To optimise the proposed journey times we would also need to ensure trains can operate at faster speeds in the Bedford area.

The current station and infrastructure can't support all of this activity, because:

- There is only one track from the Bletchley direction into the bay platform (the platform at which the track terminates)
- There is a bend on the track which restricts the speed to 15mph (meaning that trains require more time to travel over this part of the route which increases overall journey times)
- The track terminates at platform 1A so trains couldn't use it to go through to Cambridge
- Available platforms couldn't accommodate EWR services as well as existing services

So, to deliver the benefits, we would have to relocate the station buildings and make a number of changes to the infrastructure around the station, including:

- The existing railway as it approaches Bedford station from Bedford St Johns
- The Thameslink sidings
- Bedford station Platform 1A and other platforms
- Ford End Road bridge, and road access to Bedford station
- The location of the station building and access to it.

More details on how we have considered these areas are available in the Technical Report.

In addition, there is the opportunity for the improvements at Bedford station to contribute positively to the regeneration of the area immediately around the station, and the centre of Bedford. This means that we have considered various concepts about what the new Bedford station could achieve, including:

- The location and how it supports the surrounding area
- How the station would connect with other forms of transport
- Car parking provision at the station.

We recognise the aspirations of key stakeholders to regenerate the town. We understand the need for growth and prosperity in the town and the potential for enhanced rail services to be a catalyst for regeneration in the area.

We understand there are proposals for an ambitious redevelopment south of Ford End Road, and the potential to include a station in this development. We are open to considering such a solution, but we are mindful that incorporating the station into such a significant redevelopment would rely on several factors, many of which are outside our control. Our analysis is that:

- The costs would be significantly higher than our emerging preferred option, requiring additional funding
- This scheme would extend the distance for people changing trains which may create difficulties for some passengers
- It would involve significant disruption to existing rail services and supporting railway depots during construction
- It may result in delaying the start date for EWR services at Bedford. This is because of the complexity of the redevelopment scheme and the additional time that it would take to gain the appropriate approvals for work to start.

Whilst we are keen to support and engage with potential redevelopment opportunities, there are several factors outside our control with this developing proposal which means it cannot be our emerging preferred option at the current time. We would propose an option that meets many of the same objectives and would enable wider redevelopment, whilst enabling EWR services to be introduced to Bedford at the earliest opportunity.

You can find more details about our considerations on the alternative for a station south of Ford End Road in the Technical Report. We will continue to work closely with stakeholders and the railway industry to ensure changes at Bedford station support prosperity and economic growth for the town.

Our emerging preferred option – a new Bedford station, as a catalyst for regeneration

Our emerging preferred option would provide passengers with a new and extended station at Bedford, unlocking the potential for further regeneration in the town and supporting the aspirations of Bedford Borough Council. This would be a very exciting and significant development for the town which would act as a catalyst for further regeneration. The rebuilt station would have more facilities for passengers. The station would have new platforms enabling EWR passengers to board and alight from trains.

The new station would be built at a new location on the existing railway estate, north of Ford End Road Bridge, however there are a number of commercial and residential properties adjacent to the existing station that may be affected by this proposed station location, and which may require demolition depending on the final design. A new public plaza would be created providing a much better link between the station and the town centre. We would consider building a new footbridge connection from the station to the Queens Park area to the west of the station.

A station in this location would have no impact on the land to the south of Ford End Road, thereby enabling the later development of this site towards the river by future proofing easy connections to that site.

Trains approaching Bedford station from the south would use the existing railway bridge across the River Great Ouse, assuming our emerging preferred option at Bedford St Johns is built. On the north side of the River Great Ouse, the railway tracks would split into three and the existing “Jowett” sidings used by Thameslink trains would be moved to another location. These three tracks would pass under three of the existing arches in Ford End Road bridge.

The three tracks would serve three new platforms at Bedford station, and retain the existing Thameslink platforms. These new platforms would be placed where the existing Bedford station building stands, meaning that we would rebuild the station entrance and concourse to the east of its current location.

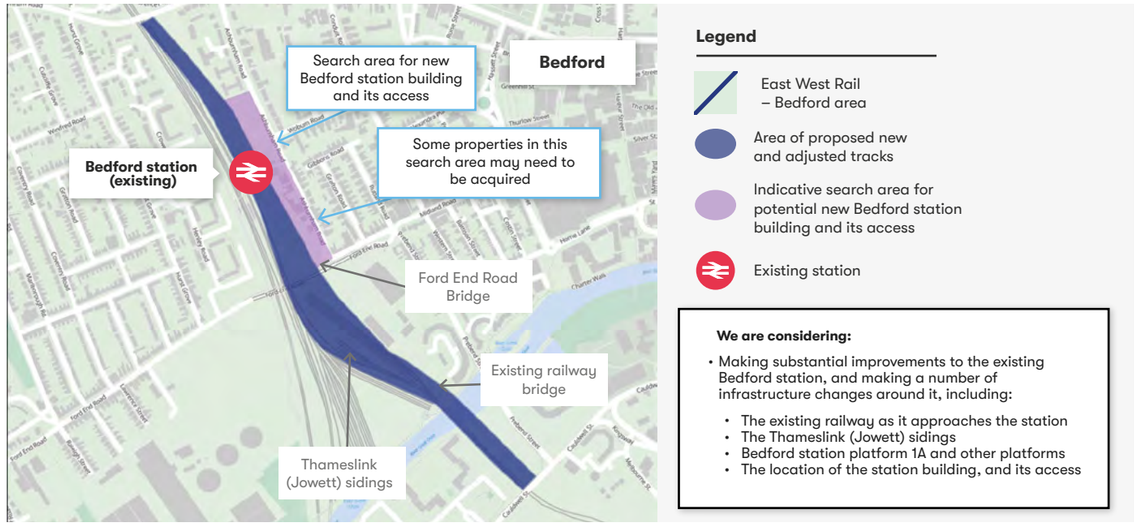


Figure: Bedford station emerging preferred option

The station

Our emerging preferred option is at an early stage of development. We will consider how the design can establish the station as a gateway to the town, improve the customer experience and support the needs of the local community. This could include car parking, retail and other facilities. We will use your feedback to the consultation as we consider proposals for the design of the station. Design proposals will be shared in the next consultation.

Our considerations

We are considering the following, along with your consultation feedback, as we develop our proposals. Redeveloping Bedford station would:

- Offer the opportunity to improve the presence of the station in the area, providing modern new facilities which would improve the relationship with the wider community, including the town centre
- Enable connectivity to the south of the station towards the riverside, enabling the provision of green space and a link to existing sustainable transport routes
- Enable connections between the east and west sides of the station
- Support the potential redevelopment south of Ford End Road, if it were to be brought forward, without EWR services being delayed
- Provide an improved customer experience and station for the future
- Require the closure and relocation of the Jowett sidings to the east of the Marston Vale Line.

We believe this aligns well with the aspirations of key stakeholders for the regeneration of the area. Redeveloping the station at Bedford supports many of the ambitions of the Bedford Master Plan, including creating jobs, supporting new and existing businesses, and creating growth.

North Bedford

Why do we need to do something?

Re-establishing a direct rail link between Bedford and Cambridge would bring many benefits for the town and surrounding areas. In order to enable EWR services to run through Bedford and connect people with Cambridge, some significant infrastructure improvements would be required. The existing Midland Main Line track north of Bedford station has seen substantial capacity growth and is already well used with both freight and passenger trains. We have looked carefully to understand what is required and how it could be achieved.

We have considered different ways to connect the service from Bedford with the new railway to Cambridge. Currently we believe that there is one emerging preferred option which we explain below. You can read more information about the work that has been carried out and our considerations in the Technical Report.

Our emerging preferred option

We have explored a range of alternatives before coming to our emerging preferred option, which are set out in the Technical Report. Our emerging preferred option is to build two new tracks to the east side of the existing railway through Bromham Road Bridge and following the existing railway as far as the UK Power Networks substation at Fairhill. We are very mindful that proposals to add infrastructure to existing built up areas can have a significant impact locally. We have considered the potential impact very carefully. This option would mean we would need to acquire and demolish some residential and business properties to the east of the existing railway in this area. Below we provide more information on this as well as a wide range of factors we have been considering.

In a reasonable worst case scenario, a total of 97 properties located near the existing railway are potentially affected as a result of the need to acquire land outside the existing railway corridor, including residential properties. Of these, 28 have been identified where demolition is likely to be needed, 25 are identified as at-risk because they are attached to properties which are likely to require demolition, and 44 are identified where partial loss of garden or parking areas may result.

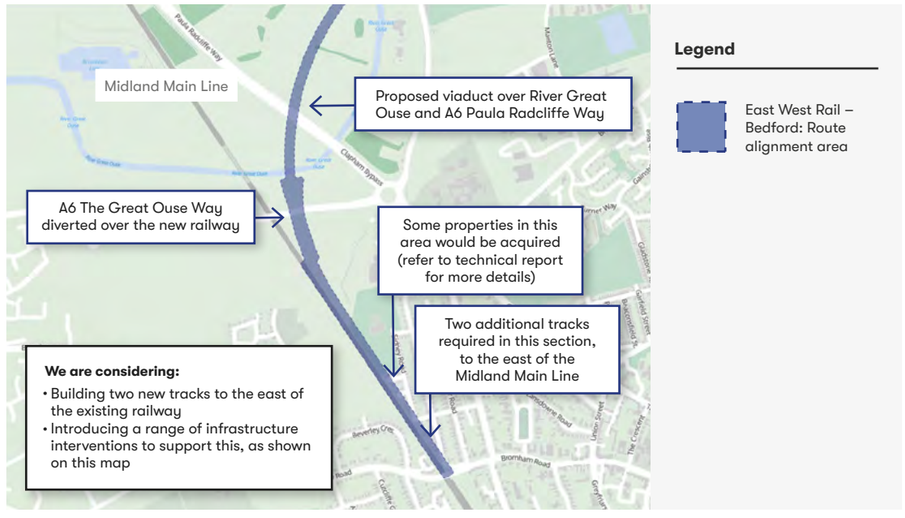


Figure: New railway between Bromham Road Bridge and Bedford Fairhill

After the departure from the existing railway at Fairhill, the new railway would pass under The Great Ouse Way. It would then pass over the River Great Ouse, Paula Radcliffe Way and Clapham Road on a single viaduct, and then pass under Carriage Drive.

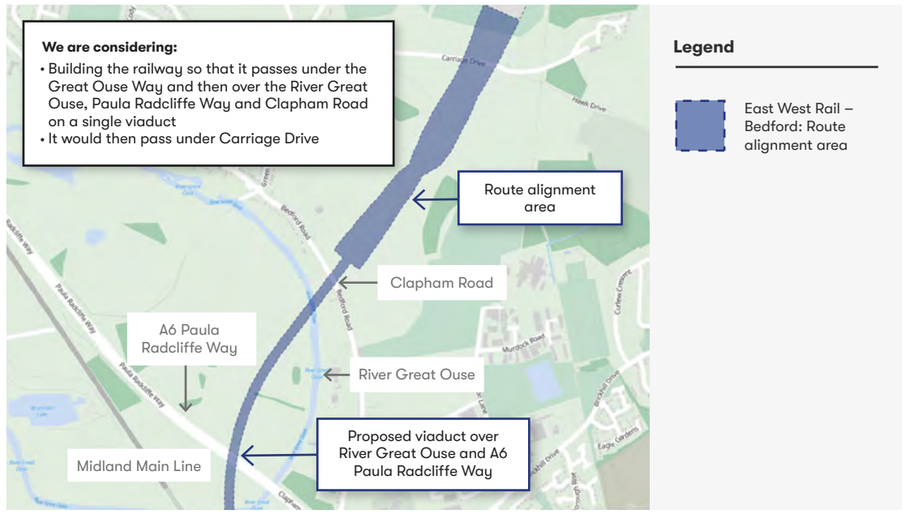


Figure: New railway between Bedford Fairhill and Clapham Green

We have carried out a preliminary assessment of the options using the assessment factors as set out in the Technical Report and we will consider your consultation feedback to inform the next stage of design work.

We consider this to be our emerging preferred option because of the following factors:

Reliable and punctual services for passengers:

- It enables EWR to provide passengers with a reliable and punctual service by avoiding the risk of too many trains using the existing busy main line north from Bedford which could result in delays
- It maintains and enhances the ability of the railway network as a whole to respond to incidents and unplanned events
- It ensures that it would possible to undertake routine maintenance and inspections of infrastructure safely on each line, without affecting the other. For example, a closure of the Midland Main Line would not mean that EWR would also need to close, and vice versa
- It would mean we can provide a frequent and regular service to meet the initial forecasts for passenger numbers
- It would allow for longer term increases in passenger demand for services on EWR or the Midland Main Line to be met
- It provides the potential to meet future freight demand on EWR or Midland Main Line
- It enables EWR and Network Rail to be able to innovate independently such as deploying strategies and new technologies as required to meet operations and customer expectations.

Taking account of existing train services:

- It ensures no detrimental effect on the performance of existing services used by passengers of trains running on the Midland Main Line
- It ensures that we take account of the impact of potential EWR services on the existing rail network, in particular on the busy Midland Main Line
- It ensures that our services do not constrain existing freight demand on the Midland Main Line
- It minimises the need to replace, relocate or enhance existing Midland Main Line infrastructure (such as track junctions and the recently installed structures supporting the overhead line equipment) thereby avoiding any associated disruption to Midland Main Line services and the associated risks to the cost and duration of the Project
- It avoids the need for complex integration of signalling and train control systems in this area with the associated risks to the cost and length of the Project.

We welcome your views on this option and whether you think alternatives may be viable. Further information about the emerging preferred option with details against each assessment factor and the discounted option are set out in the Technical Report.

Our considerations

We have looked at several different ways to ensure we can run trains to Cambridge effectively and all involve disruption and demolishing some properties. We fully recognise that the emerging preferred option would have a significant impact on the local community. We are considering the following factors, along with your consultation responses, as we develop our proposals.

Along with your response to this consultation, we expect we will need to consider the following matters at the next stage of design:

- Improved certainty regarding the extent of land and property acquisition required, including residential properties, the Alexander Sports Centre playing fields and the UK Power Networks substation at Fairhill
- The remaining properties both during and after construction
- The temporary and permanent works needed to Bromham Road Bridge
- The effect of train services and construction on the Bedford Town Centre Air Quality Management Area
- The extent of works required to The Great Ouse Way
- The location and size of the viaduct and any temporary land acquisition required for its construction.

You can find further information in the Technical Report.

Share your views

33. What do you think is important to consider when developing our proposals for the Bedford area? In particular, what do we need to take account of:

a. Regarding changes to Bedford St Johns station and the area around it
b. Regarding changes to Bedford station and the area around it
c. Regarding our emerging preferred option for the area to the north of Bromham Road bridge (North Bedford).

34. Please rank your preference for the proposed options for Bedford St Johns station.

Option 1: relocating Bedford St Johns station to the west
Option 2: relocating Bedford St Johns station to the south

35. Please tell us why you have ranked the proposed Bedford St Johns options and provide any other comments.

36. What do you think is important to consider when developing our emerging preferred option for Bedford station?

37. What do you think is important to consider when developing our emerging preferred option for the area north of Bromham Road bridge (North Bedford)?

You can share your thoughts with us on this question by filling in our online feedback form at **www.eastwestrail.co.uk/feedback.** You can also send us your views by emailing us at **consultation@eastwestrail.co.uk** or writing to us at **Freepost EAST WEST RAIL.**

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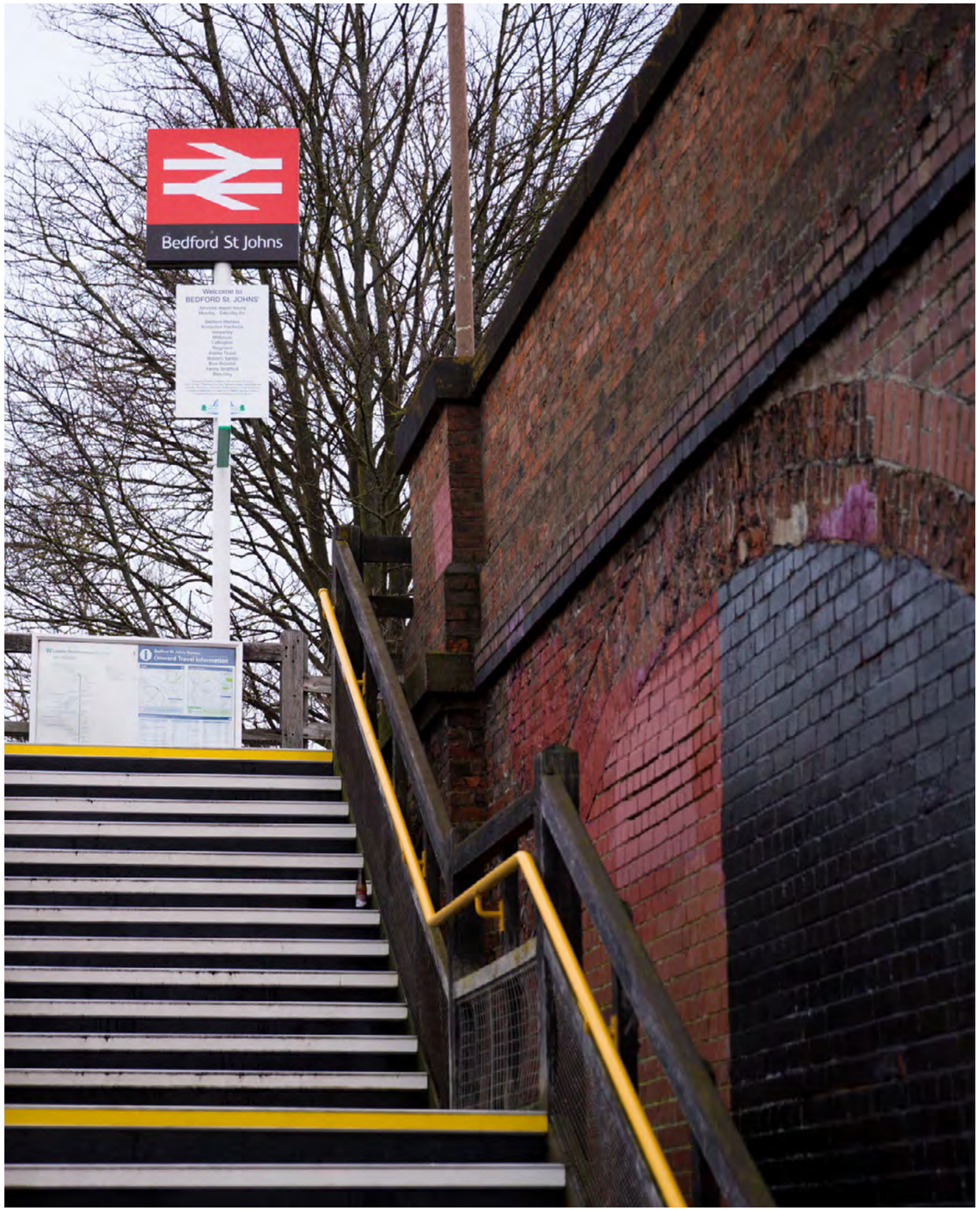


Bedford St Johns station

04. Infrastructure development: Section D

Section D:
Clapham Green to The Eversdens — new railway and new stations

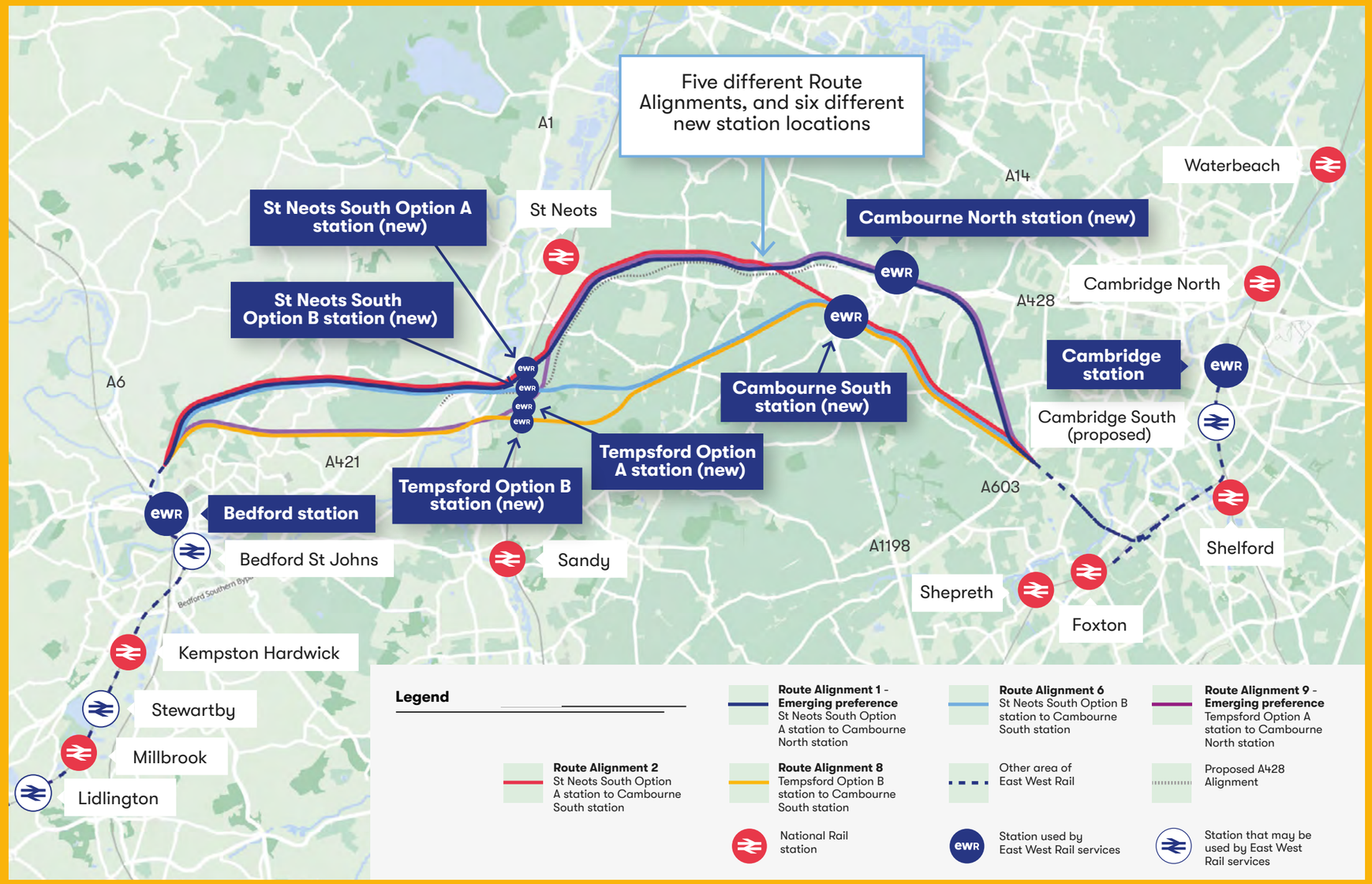


Figure: Section D: Clapham Green to The Eversdens

The map illustrations shown in this chapter are not indicative of the land acquisition. We will minimise this wherever possible, especially in relation to homes and other buildings.

Introduction

This section of East West Rail's new railway from Bedford to Cambridge includes the area between Clapham Green, north of Bedford, to The Eversdens, south east of Cambourne.

A wide range of factors have been considered to inform the appraisal of route alignment options (where the proposed railway line may be located). The possibility of developing alignments outside the preferred route option E, but within the same general area, were considered including as a result of stakeholder feedback.

We also considered the route of the proposed A428 Black Cat to Caxton Gibbet Improvement Scheme. Given the opportunities presented by the new road, we have considered some alignments that are slightly outside the area of route option E. Consequently, we identified and developed alignments where there was a prospect that they might offer better performance against the assessment factors.

The main factors relevant to this assessment are:

- Transport user benefits such as improved journey times, lower fares and less road congestion
- The contribution that the new railway can make to encourage growth and prosperity in the area, such as the creation of jobs and the development of new homes, particularly so that today's young people can stay connected to friends and family locally in the future
- Capital and operating costs and overall affordability - some alignments may be more expensive than others, but could be justified if opportunities, including the potential to support additional growth and new homes, can be realised

- Performance and safety risk – although we would always build a safe railway which could be maintained, some route alignment options would have more risks to mitigate than others

- Environmental impacts and opportunities.

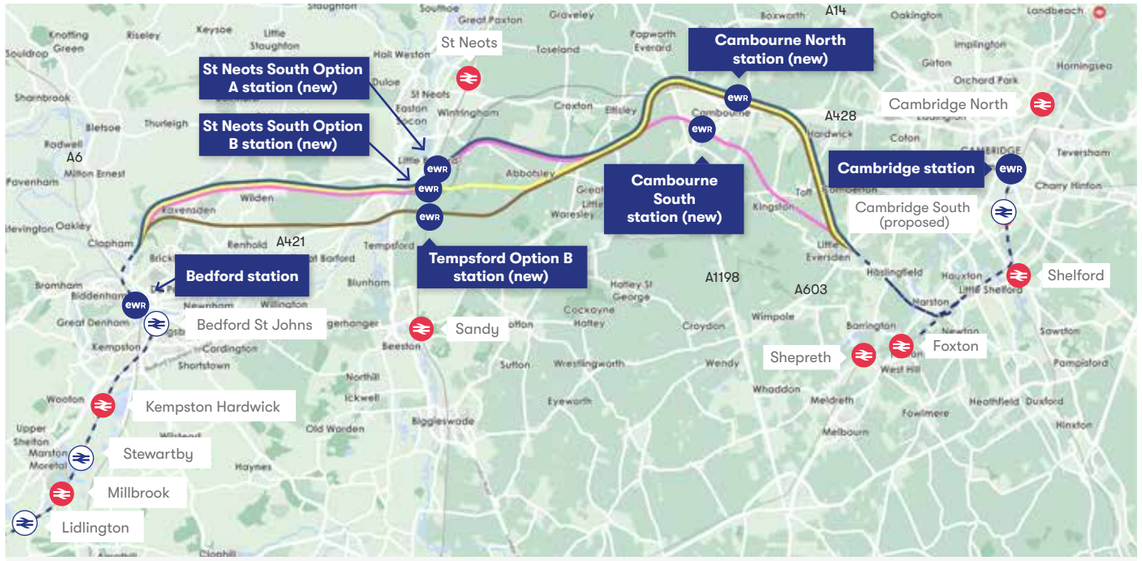
As part of our 2019 consultation to identify a preferred route option, what we now refer to as 'the yellow alignment' was designed as an initial alignment option for route option E. Once route option E had been announced as the emerging preferred option, we refined this alignment and have used it as a reference to assess the other alignments.

The yellow alignment is being used as the reference alignment because it most closely represented the path of route option E and has become the indicative alignment for that route. This means that we are able to show if an alignment option is an improvement on, the same as, or worse than the reference alignment. This then gives an indication of the relative performance of each option compared to the reference alignment (the yellow alignment).

Our options and consideration of these options

We produced a longlist of nine alignment options. These alignment options include two station options in the Tempsford area (Tempsford Option A and Option B), and two station options in the St Neots South area (St Neots South Option A and Option B). The alignments also include options for a station to the north of Cambourne, and a station to the south of Cambourne.

Figure: Proposed alignment options – discounted options



After an initial review based on the factors outlined above, we have produced a shortlist of five alignment options. Our reasons for discounting the other four options are set out in the Technical Report.

The shortlisted options are:

- The yellow alignment (known as Alignment 8 in the Technical Report) which includes a Tempsford Option B station and a Cambourne South station

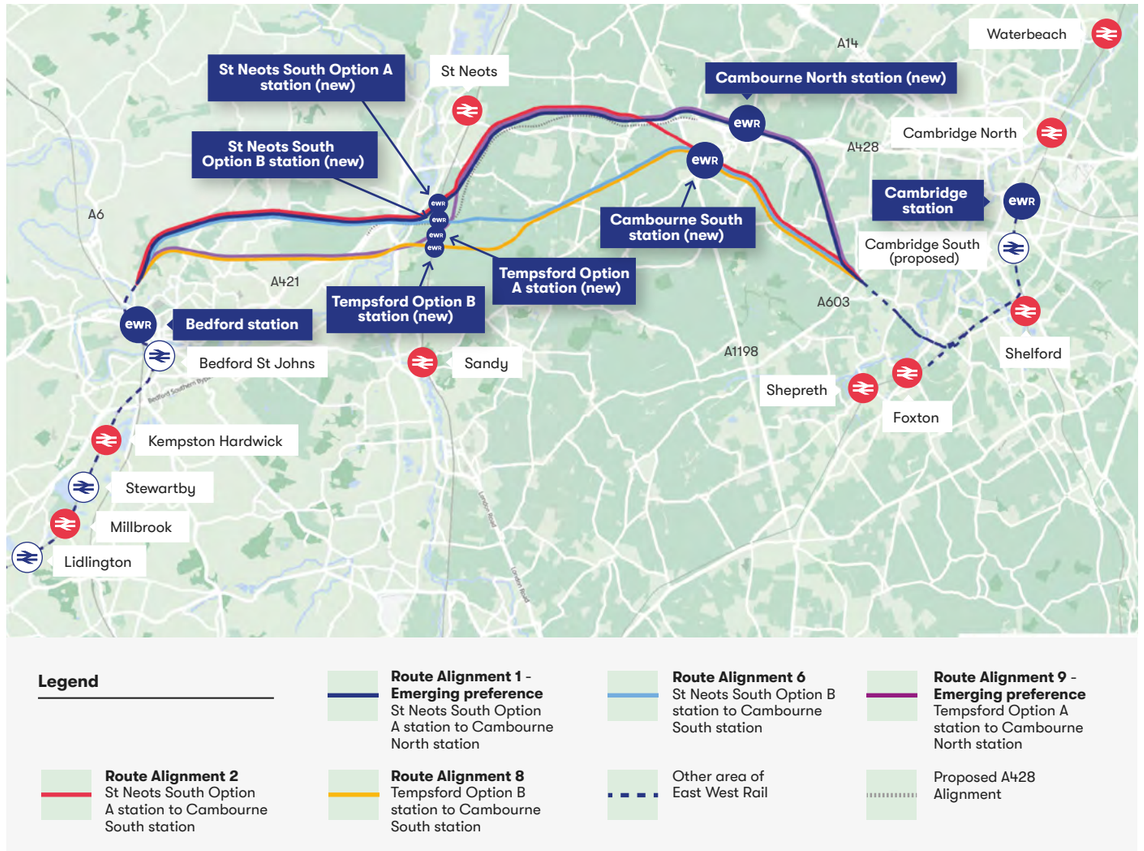
- The dark blue alignment (known as Alignment 1 in the Technical Report) which includes a St Neots South Option A station and a Cambourne North station

- The red alignment (known as Alignment 2 in the Technical Report) which includes a St Neots South Option A station and a Cambourne South station

- The light blue alignment (known as Alignment 6 in the Technical Report) which includes a St Neots South Option B station and a Cambourne South station

- The purple alignment (known as Alignment 9 in the Technical Report) which includes a Tempsford Option A station and a Cambourne North station.

Figure: Proposed alignment options – shortlisted options



These five options are described below with our initial thoughts on their respective key opportunities and challenges. Each proposed alignment has been given a colour to make it easier to describe and respond to our questions about them. The proposed route of the new A428 dual carriageway is also shown.

All five options meet the objectives for the Project, in the Project Summary of this document, and connect with the Bedford section close to Clapham Green and Hauxton Junction, which is explained in section E. Each allows a potential passenger interchange with the East Coast Main Line close to Tempsford or St Neots South and passes close to Cambourne where a station can be provided. The proposed St Neots South station is not a replacement of the existing St Neots station, it is in addition to it. All five options are located in or close to the preferred route option area, which was selected in January 2020 following public consultation. The Preferred Route Option Report on our website provides more detail.

The locations of stations are indicative at this stage. Detailed locations will be included in the next consultation after a preferred alignment has been selected.

Our emerging preferences

The dark blue and purple alignments (Alignment 1 and Alignment 9 in the Technical Report) have been identified as emerging preferences for a number of reasons:

- Joined up infrastructure – they benefit from a shared 'travel corridor' with the proposed A428 Black Cat to Caxton Gibbet Improvement Scheme, meaning they already cover a route used regularly to connect people to places
- New housing and communities – there is more potential for new homes and communities in the area (particularly for Cambourne North compared to Cambourne South)
- Economic growth – alongside the development of new housing, a new station could bring economic growth to the community, creating more jobs and prosperity
- Value for money – they are expected to be less costly to deliver than other alignments connecting to the same station pairings.

Work is ongoing to consider whether it is preferable for the railway alignment to serve a station at Tempsford or St Neots South. We currently understand that there could be substantial advantages to choosing to go via Tempsford but are awaiting further evidence to give us confidence in that judgement.

The Technical Report reflects our current understanding of opportunities, advantages and risks at Tempsford. We will take account of any further information that emerges in relation to potential for development close to Tempsford. Such information would accompany our next consultation to enable comments to be taken into account before an application for a Development Consent Order.

The performance of the alignment options is described in the following section, including references to the factors relevant to assessment that are described above, including environmental impacts and opportunities. Provided that the environmental impacts of the dark blue and purple alignments are appropriately mitigated, we believe that these two alignments can be identified as emerging preferences. It should be noted that these emerging preferred alignment options do not represent a final decision and are subject to change, for example should further evidence come to light that concludes that Cambourne South would be a better location.

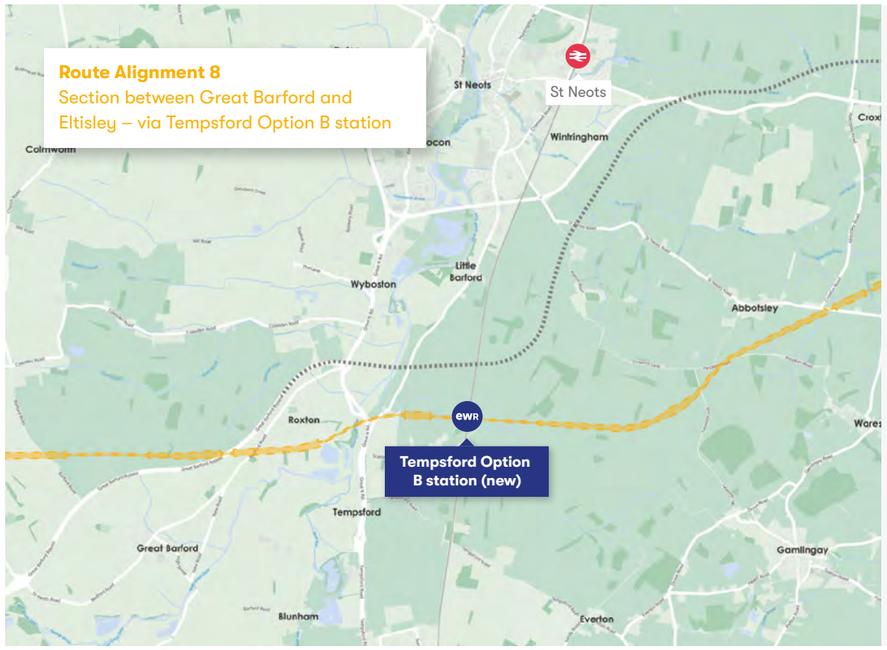
All of our reasoning for these emerging preferred options is included in the Technical Report.

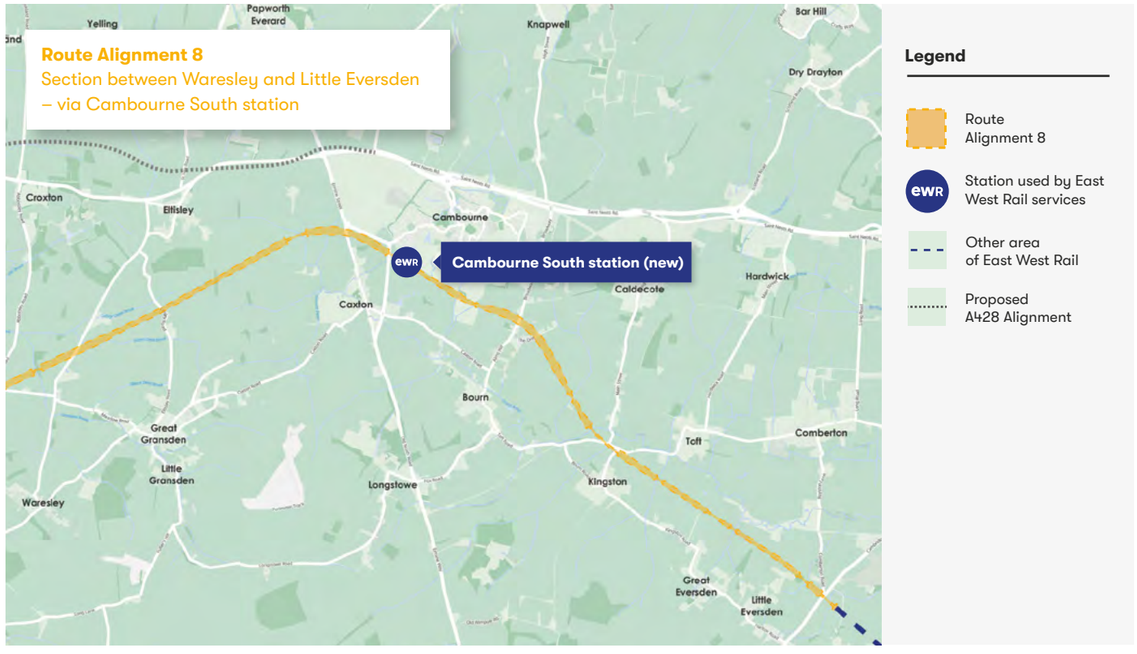
Clapham Green to Great Eversden the yellow alignment: Tempsford to Cambourne South

Figure: the yellow alignment - Tempsford station to Cambourne South station

Our options:

The yellow alignment heads north east from Bedford to the location where all alignment options split. It passes south of Ravensden, Wilden and Roxton and would continue east to serve a new station at Tempsford, where the alignment crosses the East Coast Main Line. The alignment would continue east, running to the south of Abbotsley and north of Great Gransden, to reach a new station at Cambourne South. The alignment then runs south east; north of Bourn and south of Toft; to the location where the different route alignment options rejoin. It would then continue south east, passing south of Haslingfield and Harston to Hauxton Junction.





Transport user benefits

The journey time for the yellow alignment is shorter than the journey time for the dark blue, light blue and purple alignments. Alignments which serve a Cambourne North station (the dark blue and purple alignments) or follow the A428 (the dark blue, red and purple alignments) are longer than other alignment options and consequently have longer journey times. A shorter journey time may increase the likelihood that people will use the train and other transport methods instead of the car. The journey times for the yellow and light blue alignments are similar.

Housing and economic growth

The yellow alignment forgoes the opportunity to serve a Cambourne North station location, which could make it less preferable than the dark blue and purple alignments. This is because around Cambourne North there is more available land capable of development to the north of the A428, with fewer constraints. We expect that new homes and communities could be built to the north of Cambourne without causing Papworth Everard, Knapwell and Elsworth to join up, and a site in this area is already identified in

the emerging Greater Cambridge Local Plan. There are also fewer heritage assets and areas of woodland and habitat in the area to the north of Cambourne.

This option provides opportunities to unlock housing potential around Tempsford, although further information is needed to be sure of the extent of any difference compared to opportunities for new homes unlocked at St Neots.

Cost and affordability

Alignments that serve a Tempsford station location (the yellow and purple alignments) are expected to have greater capital costs than alignments with a station at St Neots. The yellow alignment is expected to be the most expensive to construct compared to the other shortlisted alignment options. This is because it would require a longer length of bridges and viaducts than the other alignment options and would need more material to be brought to site for the earthworks.

Performance and safety

No significant safety risks have been identified that would prevent any of the alignments from progressing. The yellow alignment is expected to be the least well performing alignment for performance and safety from the shortlisted options. The risk to construction safety is only greater because a longer alignment means that there would be more activities like working at height and moving earth. So, although these activities are safe, the fact they would be repeated more times means the risk increases.

Environment

The yellow reference alignment would be likely to include the following adverse environmental impacts:

- The demolition of eight residential properties; seven properties located around Broadway, Bourn and a rural property north of Sandy
- Air quality impacts such as construction dust and emissions from construction vehicles for residential properties in Roxton, Tempsford, Abbotsley, Caxton, Great Cambourne and Crow End
- Residual noise impacts caused by construction traffic and plant for residential properties in Ravensden Church End, Woodend Lane, Bedford Road and Crow End

- Potential noise impact during operation from train movement (such as wheel noise) and an increase in traffic around stations would cause adverse noise impacts
- This alignment would pass through the complex heritage resource area of the Bourn Valley, which may result in the loss/ disturbance of buried archaeology and would impact on the setting of listed buildings and scheduled monuments and the Conservation Areas of Bourn, Caldecote and Kingston. This alignment is located in close proximity to the greatest number of designated assets in comparison to all other alignments
- Relatively high adverse impacts upon landscape character, due to impacts on woodland and changes to the character of Brickhill Country Park, the River Great Ouse valley and Roxton Park. This alignment would also be likely to result in visual impacts on residential properties in Renhold, Roxton, Crow End, Caxton, Caldecote, Great Cambourne, Lower Cambourne and Kingston
- Impacts on approximately 50 farm holdings including the loss or severance of land and disruption to farming practices, as a result of construction or operation of the railway
- This alignment would encroach within the Impact Risk Zone (IRZ)[4] of the Weaveley and Sand Woods Site of Special Scientific Interest (SSSI), resulting in the potential for indirect impacts to the interests of the SSSI. The alignment is also likely to result in indirect impacts to a high number of confirmed and potential ancient woodland sites (where these woodlands are within 50m of the alignment)[5]. The alignment results in a relatively low loss of mapped priority habitat areas[6], both in terms of extent of impact and number of sites
- This alignment has a relatively long crossing of the River Great Ouse flood plain, crosses an area of flood risk at Tempsford and crosses a groundwater Source Protection Zone (SPZ) south of Cambourne. Adverse impacts on water resources would result from loss of the flood plain and the potential for contamination of the SPZ.

[3] A SSSI IRZ is a defined area around a SSSI which reflects the sensitivities for which the SSSI has been designated for

[4] An ancient woodland is a woodland that has existed continuously since 1600 or before in England, Wales and Northern Ireland (or 1750 in Scotland).

[5] Priority habitats are those included on Section 41 of the Natural Environment and Rural Communities Act (2006). These are a range of habitat types identified as being the most threatened and requiring conservation action.

Clapham Green to Great Eversden the dark blue alignment: St Neots South Option A to Cambourne North via A428 corridor

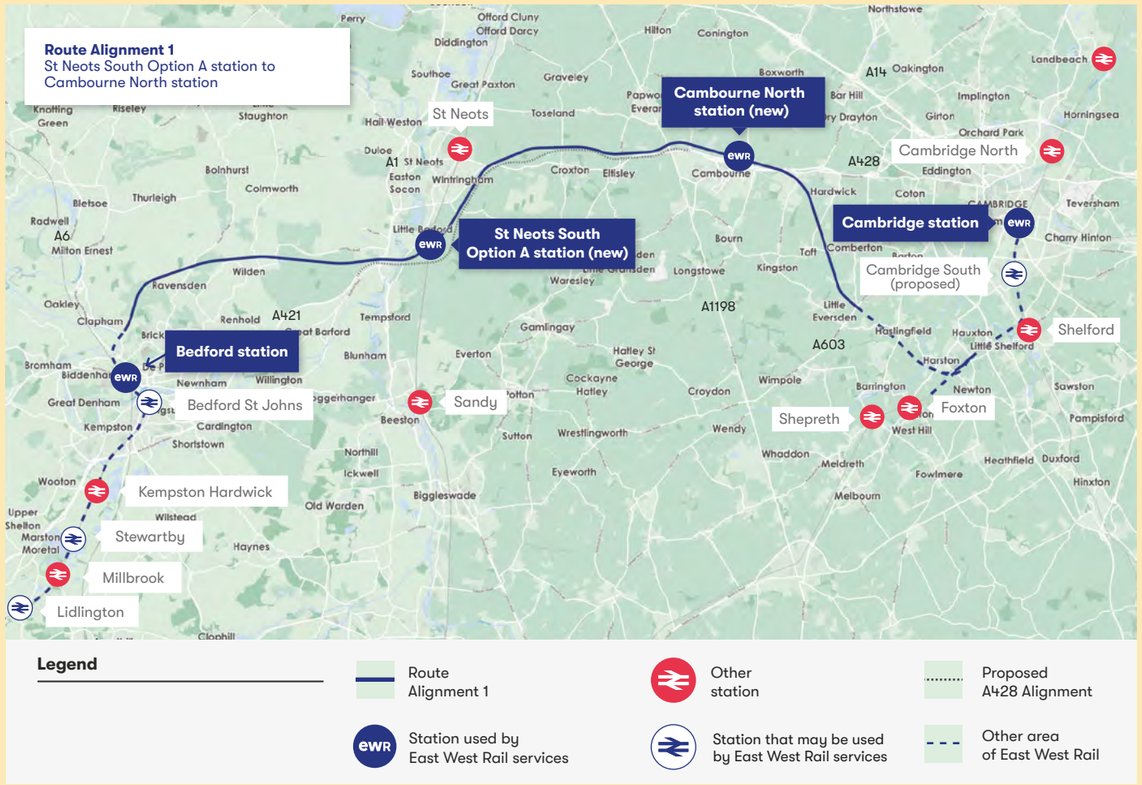
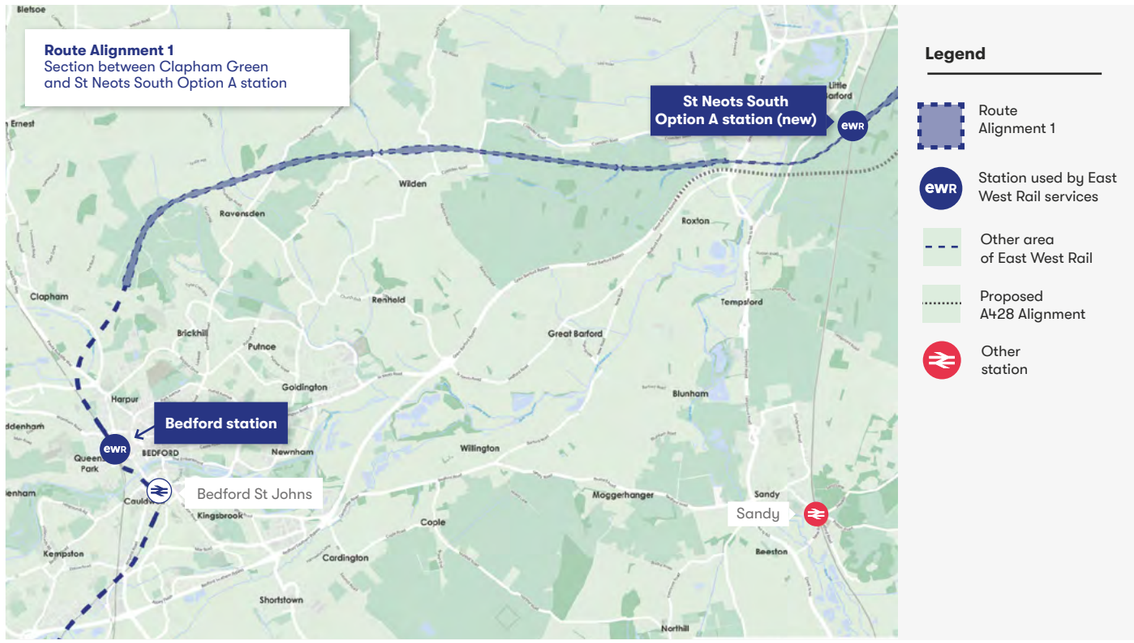
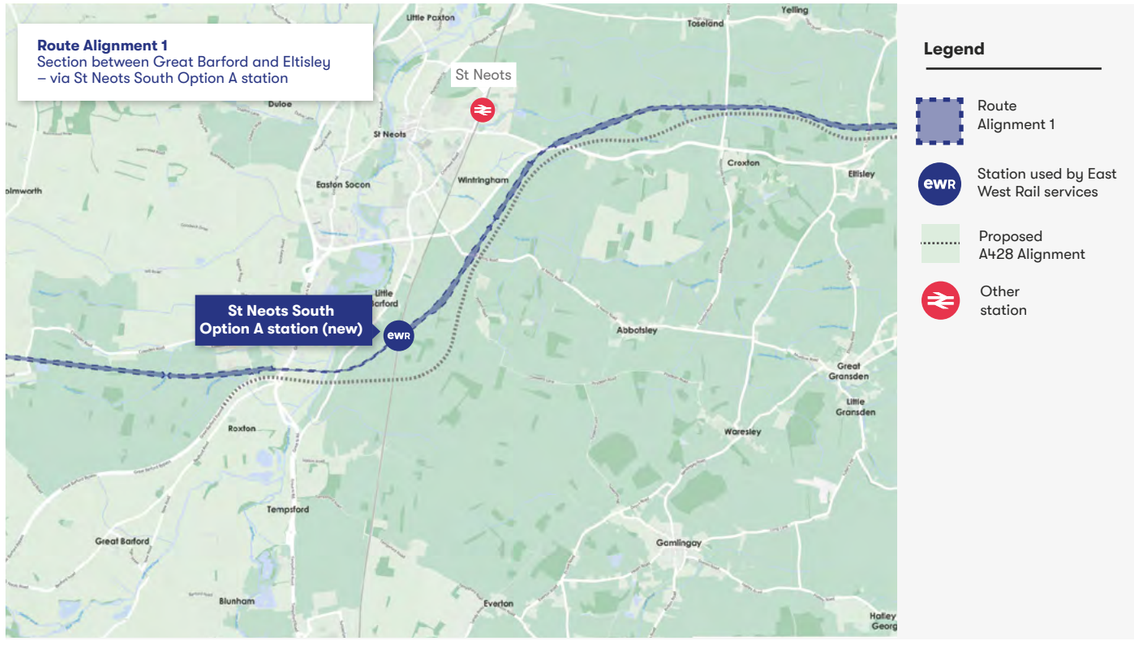


Figure: the dark blue alignment: St Neots South Option A station and a Cambourne North station

The dark blue alignment heads north east from Bedford to the location where all alignment options split. It passes north of Ravensden, Wilden and Roxton and serves the northernmost station location at St Neots South, where the alignment crosses the East Coast Main Line. From the northern St Neots South station location, the alignment would follow the proposed A428 improvement scheme on the north side, passing north of Croxton and Eltisley, to reach a station location at Cambourne North. East of Cambourne, the proposed alignment would turn south east towards Great Eversden and the location where the route options rejoin. It would then continue south east, passing south of Haslingfield and Harston to Hauxton Junction.





Transport user benefits

The dark blue alignment has a longer journey time compared to the red, light blue and yellow alignments. The alignments which serve a Cambourne North station (the dark blue and purple alignments) are longer in distance than those which serve a Cambourne South station and consequently have longer journey times.

Housing and economic growth

The dark blue alignment could be more likely to stimulate housing growth due to the potential availability of land for development around a Cambourne North station compared to alignment options that serve Cambourne South. We expect that new homes and communities could be built to the north of Cambourne without causing Papworth Everard, Knapwell and Elsworth to join up, and a site in this area is already identified in the emerging Greater Cambridge Local Plan. There are also fewer heritage assets and areas of woodland and habitat in the area to the north of Cambourne.

This option forgoes opportunities to unlock housing potential around Tempsford, although further information is needed to be sure of the extent of any difference with unlocking new homes to the south of St Neots.

Cost and affordability

The dark blue alignment is expected to be the cheapest to construct compared to the other shortlisted alignment options. This is because it has the shortest length of structures such as bridges and viaducts compared to the other shortlisted alignment options and it would need less earth to be moved to construct it than some of the other options.

A key feature of the dark blue, red and purple alignments is their proximity to the A428. At this stage the cost estimate assumes that no integration would be possible between the A428 and EWR as the A428 project is at a more advanced stage. Costs could be reduced if some integration is possible between the two schemes, for example if we were able to share moving earth at the same time.

Performance and safety

The dark blue alignment is expected to have better performance than the light blue, yellow and purple alignments because it avoids an area of weaker geology that would require more maintenance. It also crosses a shorter length of flood plain, which decreases costs associated with flooding events.

No significant safety risks have been identified that would prevent any of the alignments from progressing. The dark blue alignment is expected to perform slightly better for safety than the yellow and purple alignments. This is predominantly because there is less earth to move and fewer structures.

Environment

Compared to the yellow reference alignment, the dark blue alignment has the following improvements:

- Four fewer residential homes would need to be demolished
- It would be closer to fewer residential properties, and therefore there would be less adverse air quality and noise impacts
- This alignment is in close proximity to fewer listed buildings and scheduled monuments, therefore there would be less impact on these assets. This alignment would also avoid the complex heritage resource area of the Bourn Valley
- This alignment would avoid impacts on the landscape character of Brickhill Country Park, the River Great Ouse valley and Roxton Park
- This alignment would not encroach into the Weaveley and Sand Woods Sites of Special Scientific Interest Impact Risk Zones and would not impact confirmed and potential ancient woodland sites
- This alignment comprises of a shorter crossing of the River Great Ouse flood plain and routes via St Neots South Option B and then via the A428, therefore lowering flood risk. This alignment would also avoid the groundwater Source Protection Zone south of Cambourne
- There is a decrease in the number of structures associated with this alignment and therefore a lower carbon footprint.

Compared to the yellow reference alignment, the dark blue alignment has the following disadvantages:

- There would be a greater loss of mapped priority habitat areas
- There would be greater areas of woodland loss, though none of this would be ancient woodland.

On balance, it is considered that the dark blue alignment represents a major improvement on the reference alignment in terms of environment. Further detail is available in Environmental Impacts and Opportunities in the Technical Report.

Clapham Green to Great Eversden the red alignment: St Neots South Option A to Cambourne South via A428 corridor

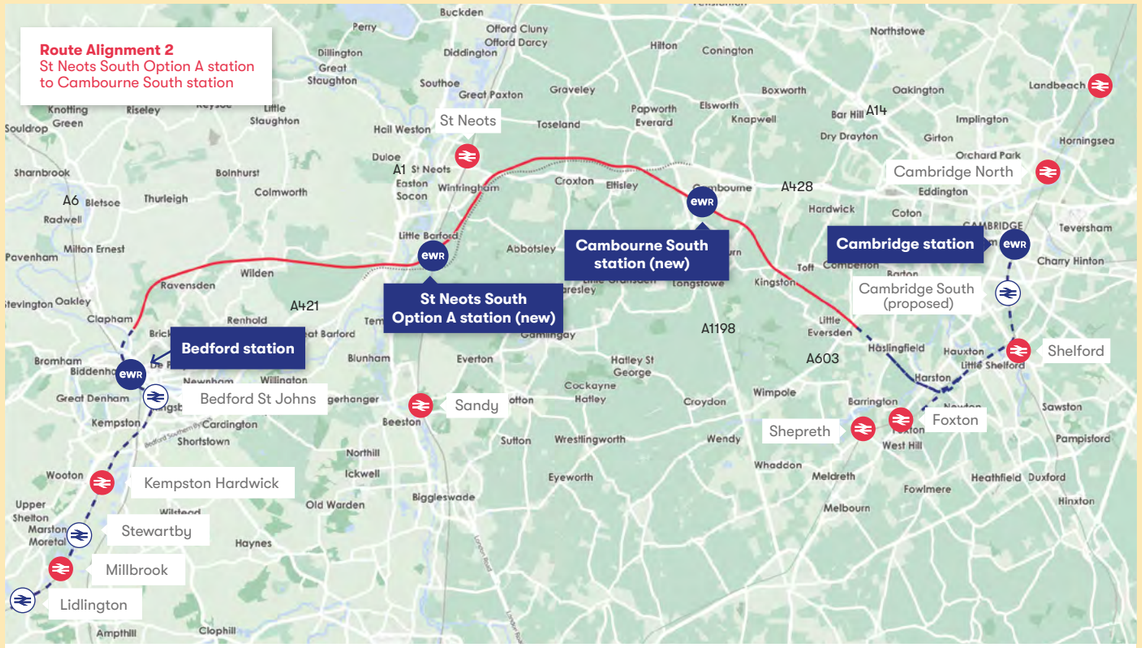
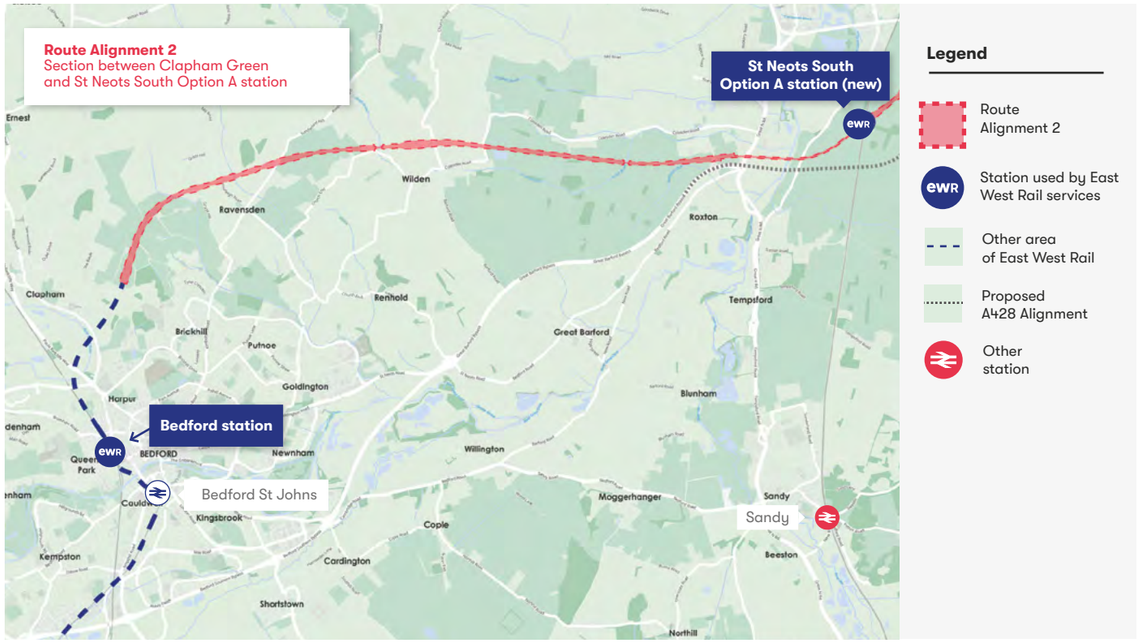
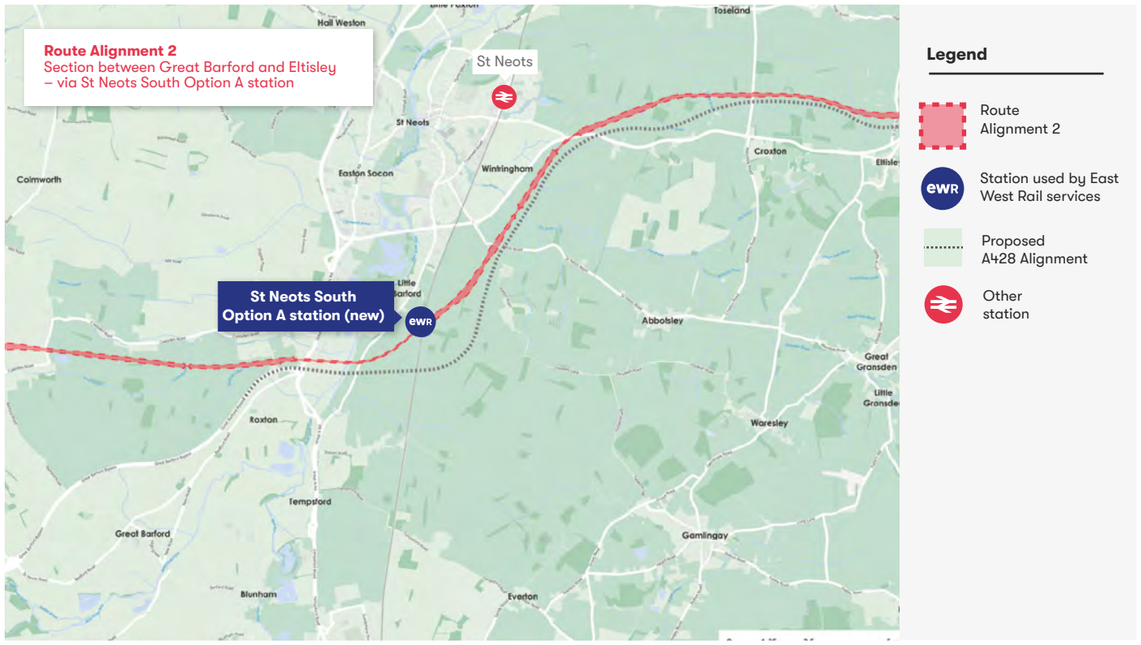


Figure: the red alignment: St Neots South Option A station and a Cambourne South station

The red alignment heads north east from Bedford to the location where all alignment options split. It passes north of Ravensden, Wilden and Roxton and serves the northernmost station location at St Neots, where the alignment crosses the East Coast Main Line. From the northern St Neots South station location, the alignment would follow the A428 improvement scheme on the north side. The alignment passes north of Croxton and Eltisley, before curving south to provide a Cambourne South station. The alignment then runs south east; north of Bourn and south of Toft; to the location where the different route alignment options rejoin. It would then continue south east, passing south of Haslingfield and Harston to Hauxton Junction.





Transport user benefits

The journey time for the red alignment is shorter than the journey time for the dark blue and purple alignments. The alignments which serve a Cambourne North station (the dark blue and purple) are longer than those which serve a Cambourne South station and consequently have longer journey times. A shorter journey time may increase the likelihood that people will use the train and other transport methods instead of the car.

The journey time for the red alignment is greater than for the yellow and light blue alignments because it follows the A428 improvement scheme resulting in a longer alignment length.

Housing and economic growth

The red alignment is less likely to stimulate housing growth compared to the dark blue and purple alignments, that serve a Cambourne North station location. There are more heritage assets, woodland and habitats to the south of Cambourne which would make it harder to place new homes. The A1198 would also affect placemaking, as it would sever the east and west sides of a new

community. There would be fewer homes capable of being built to the south of Cambourne if the development avoided the villages of Caxton, Caxton End and Crow End to join up.

This option forgoes opportunities to unlock housing potential around Tempsford, although further information is needed to be sure of any difference with unlocking new homes to the south of St Neots.

Cost and affordability

The red alignment is expected to cost more to build than the dark blue and light blue alignments but would be cheaper than the yellow and purple alignments. This is because the red alignment, like the dark blue alignment, has a shorter total length of structures and would need less material to be brought to site for the earthworks, compared to the yellow and purple alignments.

A key feature of the dark blue, red and purple alignments is their proximity to the A428. At this stage the cost estimate assumes that that no integration would be possible between the A428 and EWR as the A428 project is at a more advanced stage. Costs could be reduced if integrationis possible between the two schemes.

Performance and safety

The red alignment is expected to have better performance than the light blue, yellow and purple alignments because it avoids an area of weaker geology that would require more maintenance. It also crosses a shorter length of flood plain.

No significant safety risks have been identified that would prevent any of the alignments from progressing. The red alignment is expected to perform slightly better for safety than the yellow and purple alignments. This is predominantly because there is less earth to move and fewer structures.

Environment

Compared to the yellow reference alignment, the red alignment has the following improvements:

- This alignment would be closer to fewer residential properties and therefore there would be fewer adverse air quality and noise impacts
- Overall, this alignment is in close proximity to fewer listed buildings and scheduled monuments, therefore there would be fewer impacts on the setting of these assets
- There would be a lower impact on farm holdings
- There would be fewer losses of mapped priority habitat areas
- This alignment has a shorter crossing of the River Great Ouse flood plain and routes via St Neots South Option B and then via the A428, therefore lowering flood risk
- There is a decrease in the number of structures associated with this alignment and therefore a lower carbon footprint.

Compared to the yellow reference alignment, the red alignment has the following disadvantages:

- One additional property would need to be demolished
- At Eltisley there is the potential for an indirect impact to a scheduled monument
- Also, as with the yellow reference alignment, the red alignment would cross the Bourn Valley, cross a groundwater Source Protection Zone (SPZ) and result in high visual impacts.

On balance it is considered that the red alignment represents a major improvement on the reference alignment in terms of environment. Further detail is available in Environmental Impacts and Opportunities in the Technical Report.

Clapham Green to Great Eversden the light blue alignment: St Neots South Option B to Cambourne South

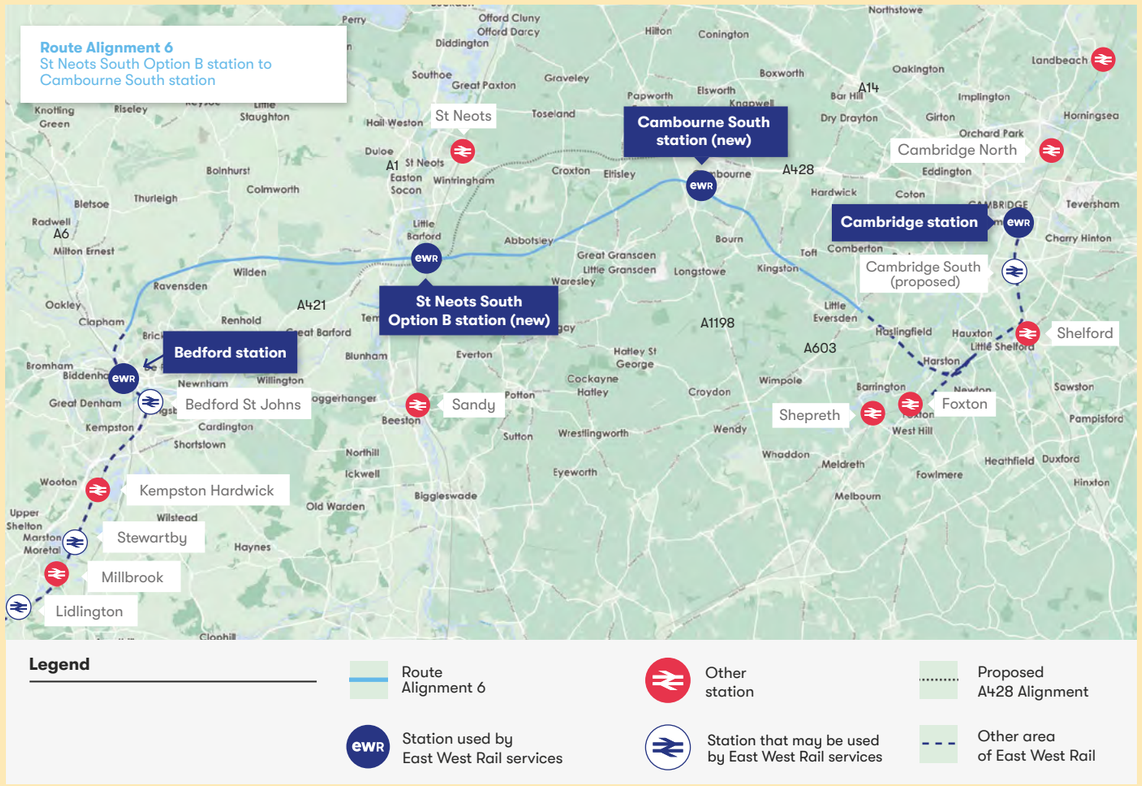
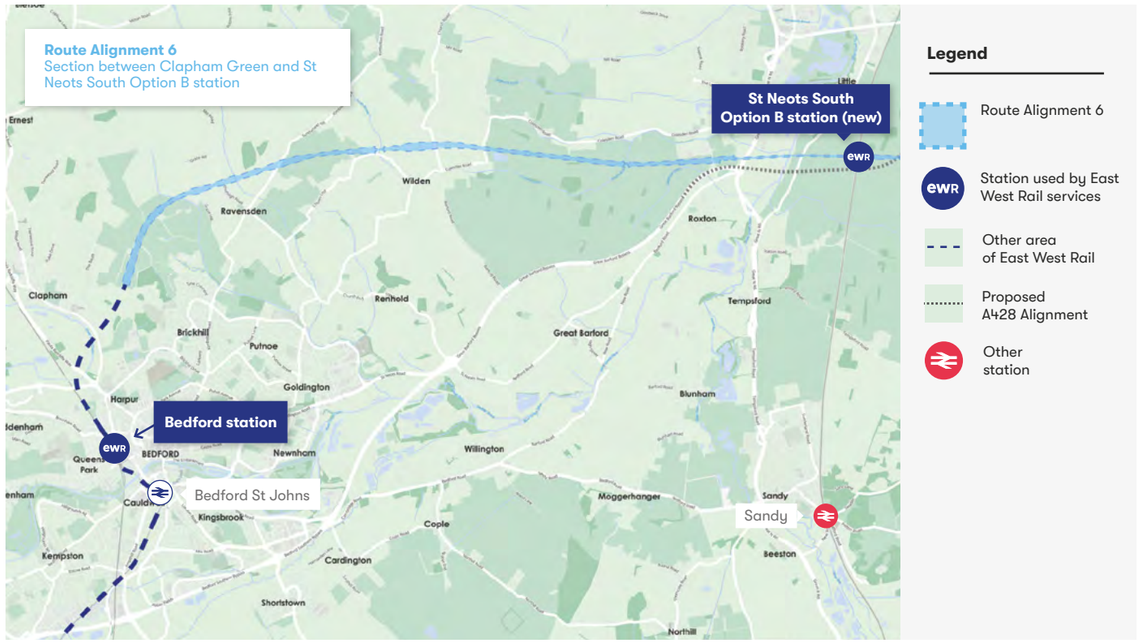
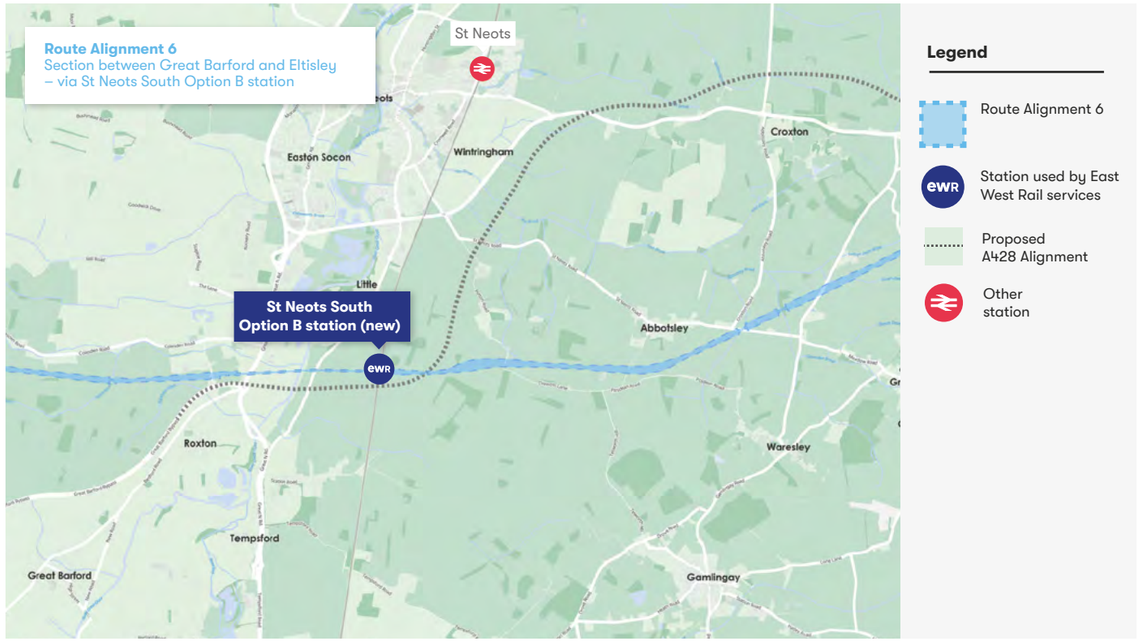


Figure: the light blue alignment: St Neots South Option B station and a Cambourne South station

The light blue alignment heads north east from Bedford to the location where all alignment options split. It passes north of Ravensden, Wilden and Roxton and would continue east to serve a new station at St Neots South Option B, where the alignment crosses the East Coast Main Line. The alignment would continue east, running to the south of Abbotsley and north of Great Gransden, to reach a new station at Cambourne South. The alignment then runs south east, north of Bourn and south of Toft, to the location where the different route alignment options rejoin. It would then continue south east, passing south of Haslingfield and Harston to Hauxton Junction.





Transport user benefits

The journey time for the light blue alignment is shorter than the journey time for the dark blue, red and purple alignments. The alignments which serve a Cambourne North station (the dark blue and purple alignments) and follow the A428 (the dark blue, red and purple alignments) are longer in distance than other alignment options and consequently have longer journey times. A shorter journey time may increase the likelihood that people will use the train and other transport methods instead of the car. The journey times for the light blue and yellow alignments are similar.

The existing Cambourne community would not have to cross the A428 to access the Cambourne South station. This may result in a greater number of people switching from car use to other methods of transport, such as walking and cycling, to access the station.

Housing and economic growth

The light blue alignment is less likely to stimulate housing growth compared to the dark blue and purple alignments, that serve a Cambourne North station location. There are more heritage assets, woodland and habitats to the south of Cambourne which would make it harder to place new homes. The A1198 would also affect placemaking, as it would sever the east and west sides of a new community. There would be fewer homes capable of being built to the south of Cambourne if the development avoided the villages of Caxton, Caxton End and Crow End to join up.

This option forgoes opportunities to unlock housing potential around Tempsford, although further information is needed to be sure of any difference with unlocking new homes to the south of St Neots.

Cost and affordability

The light blue alignment is expected to be slightly more expensive to build than the dark blue alignment but would be cheaper to build than the other alignment options.

Performance and safety

The light blue alignment is expected to have slightly better performance than the yellow and purple alignments, because it crosses a shorter length of flood plain.

No significant safety risks have been identified that would prevent any of the alignments from progressing. The light blue alignment is expected to perform slightly better for safety than the yellow and purple alignments. This is predominantly because there is less earth to move and fewer structures.

Environment

Compared to the yellow reference alignment, the light blue alignment has the following improvements:

- This alignment would be close to fewer residential properties and therefore there would be less adverse air quality and noise impacts
- This alignment is in close proximity to fewer listed buildings and scheduled monuments therefore there would be fewer impacts on the setting of these assets

- This alignment would avoid impacts on the landscape character of Brickhill Country Park, the River Great Ouse valley and Roxton Park
- There would be a lower impact on farm holdings, a smaller indirect impact on confirmed and potential ancient woodland and the Sites of Special Scientific Interest Impact Risk Zones, and fewer losses of mapped priority habitat areas
- This alignment comprises a shorter bridge span of the River Great Ouse and routes via St Neots South Option B, reducing flood risk
- There is a decrease in number of structures associated with this alignment and therefore a lower carbon footprint.

Compared to the yellow reference alignment, the light blue alignment has the following disadvantages:

- One additional residential home would need to be demolished
- It would result in high visual impacts on residential properties in Chawston and Crows End.

On balance it is considered that the light blue alignment represents a major improvement on the yellow reference alignment in terms of environment. Further detail is available in Environmental Impacts and Opportunities in the Technical Report.

Clapham Green to Great Eversden the purple alignment: Tempsford to Cambourne North, via the proposed A428

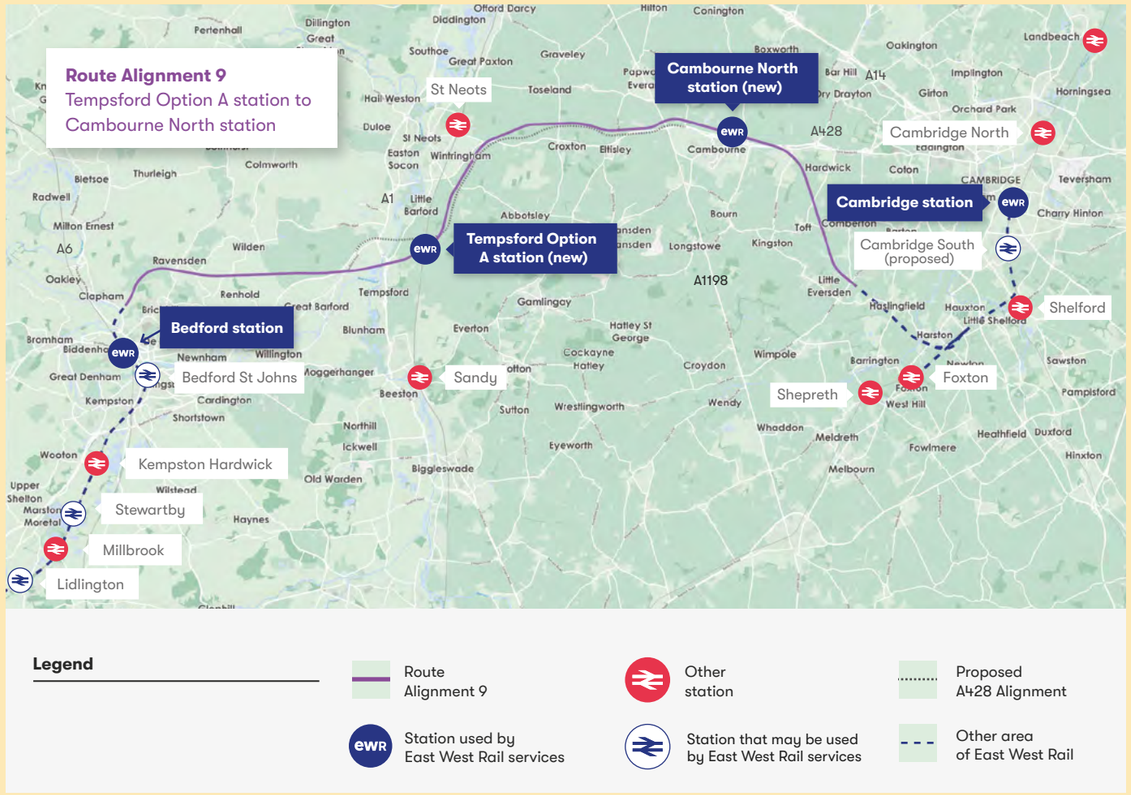
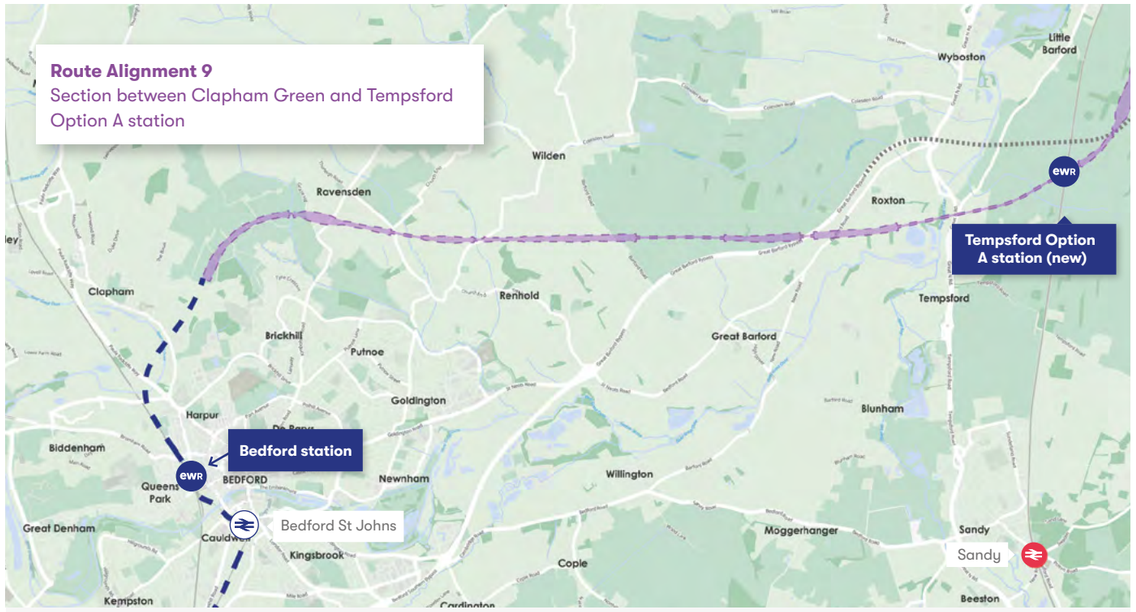
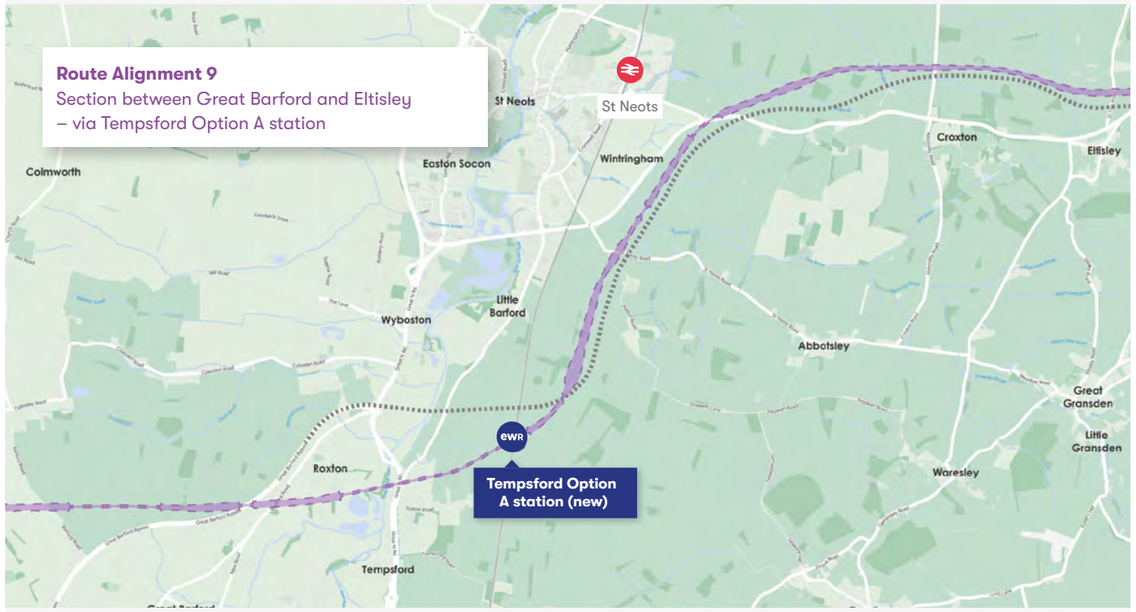


Figure: the purple alignment: Tempsford to Cambourne North station

The purple alignment heads north east from Bedford to the location where all alignment options split. It passes south of Ravensden, Wilden and Roxton and would continue east to serve a new station at Tempsford, where the alignment crosses the East Coast Main Line. From the Tempsford station location the alignment would follow the A428 improvement scheme on the north side, passing north of Croxton and Eltisley, to reach a station location at Cambourne North. East of Cambourne, the proposed alignment turns south east towards Great Eversden and the location where the route options rejoin. It would then continue south east, passing south of Haslingfield and Harston to Hauxton Junction.





Legend

- Route Alignment 9
- EWR Station used by East West Rail services
- Other area of East West Rail
- Proposed A428 Alignment

Transport user benefits

The purple alignment has a longer journey time compared to the red, yellow and light blue alignments. The alignments which serve a Cambourne North station (the light blue and purple alignments) are longer than those which serve a Cambourne South station and consequently have longer journey times. A shorter journey time may increase the likelihood that people will use the train and other transport methods instead of the car.

Housing and economic growth

The purple alignment could be more likely to stimulate housing growth due to the potential availability of land for development around a Cambourne North station compared to alignment options that serve Cambourne South. We expect that new homes and communities could be built to the north of Cambourne without causing Papworth Everard, Knapwell and Elsworth to join up, and a site in this area is already identified in the emerging Greater Cambridge Local Plan. There are also fewer heritage assets and areas of woodland and habitat in the area to the north of Cambourne.

On the choice of East Coast Main Line station location, while further information is needed to be sure, there could be greater potential for housing delivery around a Tempsford station compared to one south of St Neots.

Cost and affordability

Alignments that serve a Tempsford station location (the yellow and purple alignments) are expected to have greater capital costs than alignments with a station at St Neots South. Tempsford alignments have the longest lengths of bridges and viaducts and require more material to be brought to site for the earthworks. The purple alignment is expected to be slightly less expensive than the yellow alignment, despite it being a longer alignment, because it has a shorter length of structures and a smaller requirement for material to be brought to site for the earthworks.

A key feature of the dark blue, red and yellow alignments is their proximity to the A428. At this stage the cost estimate assumes that no integration would be possible between the A428 and EWR as the A428 project is at a more advanced stage. Costs could be reduced if integration is possible between the two schemes.

Performance and safety

The purple alignment is expected to have worse performance than the dark blue, red and light blue alignments because it crosses a longer length of flood plain. It avoids an area of weaker geology but pumped drainage could be needed at one location which would require additional maintenance.

No significant safety risks have been identified that would prevent any of the alignments from progressing. The purple alignment is expected to perform slightly better for safety than the yellow alignment, but worse than the dark blue, red and light blue alignments. This is predominantly because it is shorter than the yellow alignment but has more complex structures that would need to be built.

Environment

Compared to the yellow reference alignment, the purple alignment has the following improvements:

- Five fewer residential homes would need to be demolished
- This alignment would be closer to fewer residential properties and therefore there would be fewer adverse air quality and noise impacts
- This alignment is in close proximity to fewer listed buildings and scheduled monuments, therefore there would be fewer impacts on these assets
- This alignment would also avoid the complex heritage resource area of the Bourn Valley. This alignment would not encroach into the Weaveley and Sand Woods Site of Special Scientific Interest Impact Risk Zone and there would be a smaller indirect impact on confirmed and potential Ancient Woodland
- This alignment avoids the groundwater Source Protection Zone south of Cambourne
- There is a decrease in the number of structures associated with the purple alignment and therefore a lower carbon footprint.

Compared to the yellow reference alignment, the purple alignment has the following disadvantage:

- There would be a greater loss of mapped priority habitat areas.

On balance it is considered that the purple alignment represents a minor improvement on the yellow reference alignment in terms of environment. Further detail is available in Environmental Impacts and Opportunities in the Technical Report.

Share your views

38. Please rank your preference for the proposed Clapham Green to The Eversdens alignment options.

Alignment 8 – yellow: Tempsford Option B station to Cambourne South station

Alignment 1 – dark blue: St Neots South Option A station and a Cambourne North station

Alignment 2 – red: St Neots South Option A station and a Cambourne South station

Alignment 6 – light blue: St Neots South Option B station and a Cambridge South station

Alignment 9 – purple: Tempsford Option A station to Cambourne North station

39. Please tell us why you have ranked the proposed alignment options above as you have and provide any other comments:

You can share your thoughts with us on this question by filling in our online feedback form at **www.eastwestrail.co.uk/feedback.** You can also send us your views by emailing us at **consultation@eastwestrail.co.uk** or writing to us at **Freepost EAST WEST RAIL.**

Alternatively, you can request a paper copy of the feedback form to be sent to you by:

- Ordering it online at **www.eastwestrail.co.uk/documents**
- Emailing us at **contact@eastwestrail.co.uk**
- Calling us on **0330 134 0067**.

04. Infrastructure development: Section E

Section E:
Harlton to Hauxton — new railway and a new railway junction

The map illustrations shown in this chapter are not indicative of the land acquisition. We will minimise this wherever possible, especially in relation to homes and other buildings.

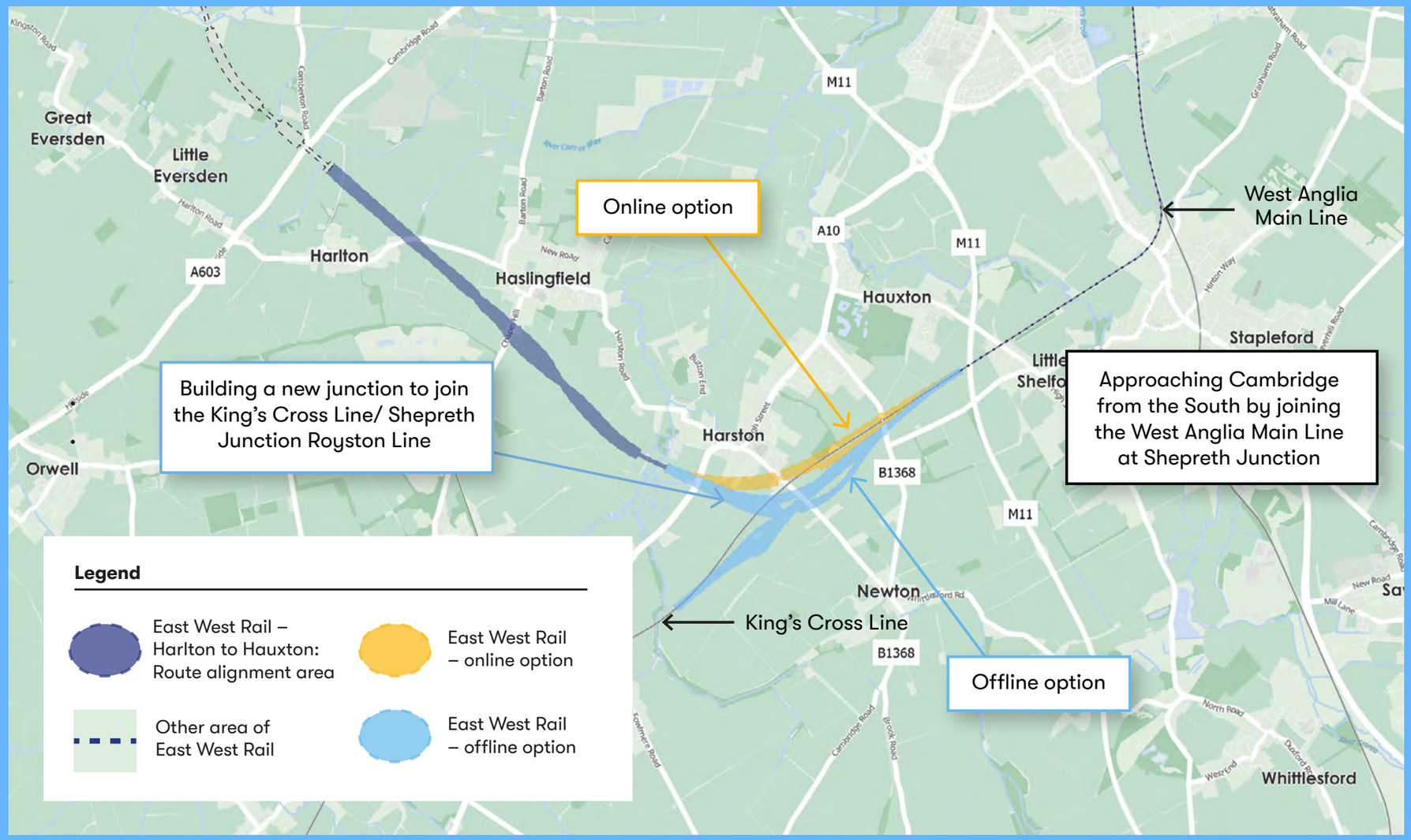


Figure: Section E: Harlton to Hauxton

Introduction

We are proposing that the new railway between Bedford and Cambridge enters Cambridge from the south via the West Anglia Main Line. To do this, the alignment options described in Section D Clapham Green to The Eversdens come together to create a single railway alignment from a location to the west of Cambridge Road (A603) as far as the connection with the King's Cross Line, which is the existing railway south of the M11. This section of the proposed new railway is approximately 8km.

Consultation Document 2021

Hauxton Junction

Why do we need to do something?

To connect to the West Anglia Main Line, we need to build a railway junction. The railway junction would join our new railway to the King's Cross Line, which is also known as the Shepreth Branch Royston Line. This line connects to the West Anglia Main Line at the Shepreth Branch Junction to the north east.

We have assessed a number of options for this railway junction which are detailed in the Technical Report.

Our emerging preferred option

Our emerging preferred option is to build a grade separated junction to connect our new railway to the Shepreth Branch Royston Line. Grade separation means constructing a bridge to carry one line over the other rather than connecting the two railways at ground level. Other alternatives we have considered are available in section 10.4 of the Technical Report.

We also propose moving the existing Shepreth Branch Royston railway in the area where our new junction joins it. The existing railway would move further to the east, slightly further away from Harston.

Figure 10.5: Offline construction: grade-separated junction option

Our new railway would also mean that we would need to create a permanent diversion for vehicles using Station Road via London Road. Non-motorised users (for example pedestrians or cyclists) would still be able to use Station Road.

Our considerations

We have applied our assessment factors to a long list of options to determine our emerging preferred option. Our considerations against each assessment factor including the discounted options are set out in the Technical Report.

We consider an offline grade separated junction to be our emerging preferred option because:

- Moving the West Anglia Main Line to the east in the preferred offline option would reduce impacts on woodland treated as Ancient Woodland in the area of Harston and minimise noise levels for Harston compared to using the existing railway alignment
- It would be able to accommodate the proposed East West Rail train service and freight trains alongside the existing train services that use the Shepreth Branch Royston Line and West Anglia Main Line
- The offline junction means we wouldn't have to close the existing railway for a long period of time, which we would need to do if we built on the existing railway
- The offline junction impacts fewer properties

Building off the existing railway would enable us to construct the junction more quickly. This would minimise the time that potential disruption is caused by construction. It would also be safer.

Along with your response to this consultation, we expect we would need to consider the following matters at the next stage of design:

- Further consideration of noise and visual impacts on Harston and surrounding communities
- Further consideration of impacts on the nearby Ancient Woodland
- Potential severance of the existing connection between Harston and Newton along Station Road/Newton Road. To address this, we will need to consider:
  - Maintaining the existing connection for use by pedestrians and cyclists only
  - Diverting road traffic along the B1368 to the A10
  - Re-purposing the existing Shepreth Branch Royston railway corridor as a new road and pedestrian/cycleway connecting the B1368 with Station Road
  - Providing a new road connecting Newton Road to the A10 at a new junction along Royston Road.

Share your views

40. What do you think is important to consider when developing our proposals for the Harlton to Hauxton area? In particular, what do we need to take account of:

a. In relation to building a new railway junction which would join our new railway to the Shepreth Branch Royston existing railway

b. In relation to our emerging preferred option to build a new junction which uses a bridge to connect the railways (a grade separated junction) and to extend the existing railway to connect to the new junction (using an offline construction)

You can share your thoughts with us on this question by filling in our online feedback form at **www.eastwestrail.co.uk/feedback.** You can also send us your views by emailing us at **consultation@eastwestrail.co.uk** or writing to us at **Freepost EAST WEST RAIL.**

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- Calling us on **0330 134 0067**.

Cambridge station

Section F:
The Shelfords to Cambridge - improvements to the existing railway and Cambridge station

Figure: Section F: Great Shelford to Cambridge

The map illustrations shown in this chapter are not indicative of the land acquisition. We will minimise this wherever possible, especially in relation to homes and other buildings.

Introduction

This section covers the area of the existing West Anglia Main Line railway that East West Rail will be using to get from the new Hauxton Junction to reach Cambridge station.

We need to ensure that the existing railway to is able to accommodate the increase in train services that would result from the Project, as set out in the Project objectives and key outputs.

For this section, this means that our proposals ensure that:

- The existing railway has adequate capacity for the additional services
- The new services can operate reliably and minimise interference with other services already operating (or proposed to operate) at key points on the route
- The new railway will be of benefit to the communities that EWR will serve between Oxford and Cambridge
- The new services offer attractive journey times consistent with the wider aims of the Project
- Stations are appropriate for the numbers of people who are expected to use them and the types of journeys those people are likely to make.

Hauxton Road level crossing

Our proposals

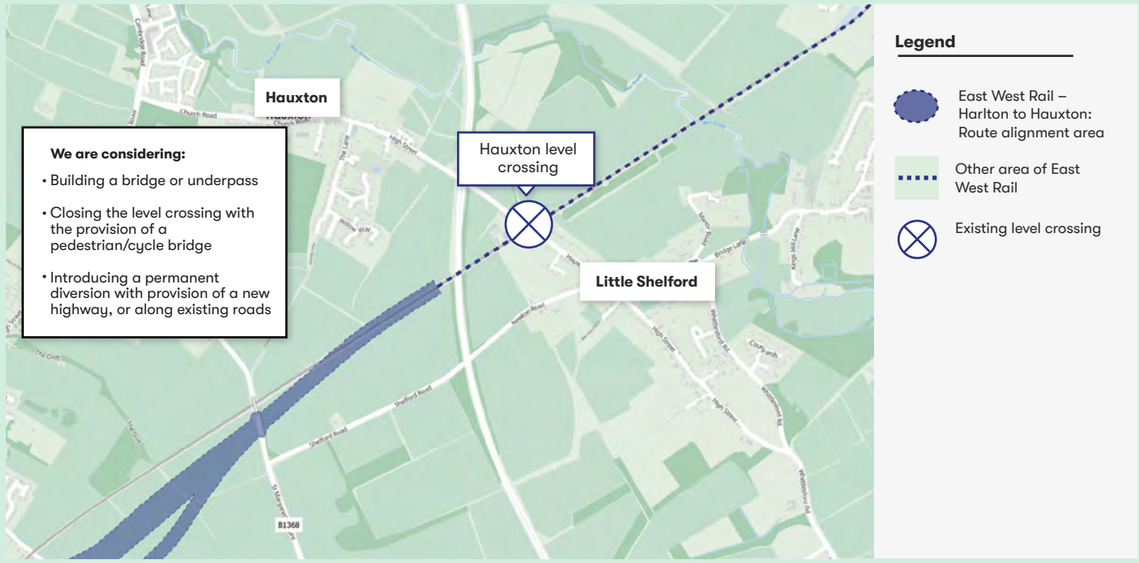
There is an existing level crossing at Hauxton Road which provides a link between the villages of Hauxton and Little Shelford. This crossing of the railway would be assessed at the next stage of design to establish whether it is safe to retain as a level crossing.

Our options

There are a number of options we are considering for Hauxton level crossing:

- Building a bridge or an underpass at the existing level crossing
- Closure with provision of a pedestrian/cycle bridge
- Permanent diversion either with provision of a new highway or along other existing local roads.

Figure: Hauxton Road level crossing



Our considerations

At the next stage of design, we would need to consider the following matters and your response to this consultation:

- The impact of any diversion via a new or existing road on traffic, including buses
- The impact of any diversion via a new or existing road for people including walkers, cyclists and horse riders
- The level of increased journey times if the existing level crossing is closed.

Shepreth Branch Junction

Shepreth Branch Junction joins the Shepreth Branch Royston railway to the West Anglia Main Line. Our train services would join the West Anglia Main Line to reach Cambridge station at this location.

We need to modify the Shepreth Branch Junction to accommodate the extra train services, and because we would be changing the railway from the junction as it approaches Cambridge.

Our options

We have two options at Shepreth Branch Junction. Both options require us to remove the junction and build two new tracks next to the existing tracks. EWR trains could run on the western or eastern side of the new four track railway into Cambridge. Our options are to:

- The railway would be at the existing level (at grade), which means EWR trains will run on the western side of new four track railway into Cambridge or
- Use a new bridge to join the two railways (grade separated), which means EWR trains will run on the eastern side of the new four track railway into Cambridge.

In both options the railway would remain in its current location, however land may need to be acquired for the construction and permanent operation of either option. We do not currently envisage that this would require the acquisition of residential properties.

Figure: Shepreth Junction

Our considerations

At the next stage of design, we would need to consider the following matters and your response to this consultation:

- The cost of a grade separated junction compared to an at grade junction would have to be considered
- The potential visual impact of a grade separated junction
- An at grade junction is likely to cause more disruption to the existing railway operations during construction
- Other environmental and community impacts would need to be considered.

The existing railway from Shepreth Junction to Addenbrookes Road bridge

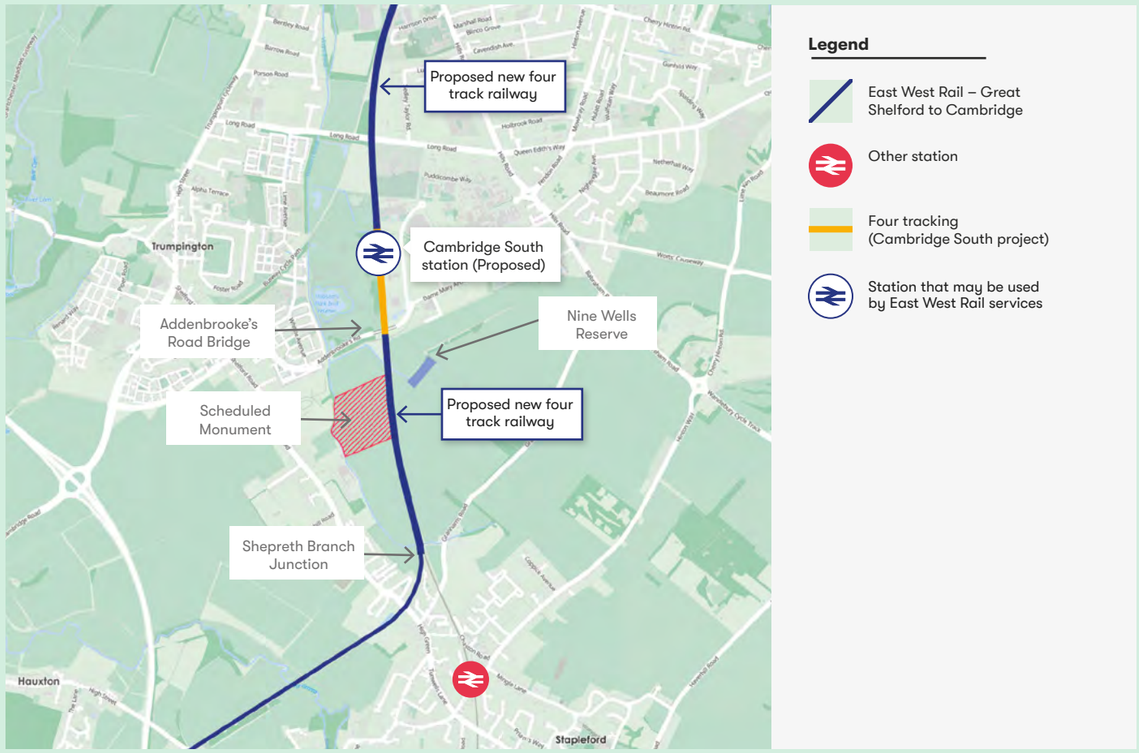
This stretch of existing railway is currently two tracks as it approaches Cambridge. Our assessment referred to in section 11.7 of the Technical Report indicates that we would need to increase the capacity of the railway between Shepreth Junction and Addenbrookes Road bridge.

Our emerging preferred option

In order to deliver this increased capacity, we propose to increase this area of railway to four tracks. Addenbrooke's Road bridge is the point where our two new tracks will join the new four tracks that the Cambridge South station project will have already built.

Further design is required in the next stage to determine the location of the two new tracks and how they tie in with the Cambridge South four tracking. This design will be developed closely with Network Rail.

Figure: Emerging preferred option for the railway between Shepreth Junction and Addenbrooke's Road bridge



Our considerations

At the next stage of design, we would need to consider the following matters and your response to this consultation:

- Any potential impacts on Nine Wells Reserve, and the water source to it (Hobson's Brook)
- A scheduled monument on the west side of the railway
- The Addenbrooke's to Great Shelford Cycleway currently runs on the east side of the West Anglia Main Line. This may have to be moved from its current location, but the link would be maintained
- The Cambridge South East Transport (CSET) Project is also planning works in the same area.

The existing railway from Long Road Sixth Form College to Cambridge station

This stretch of the existing railway is currently two tracks as it approaches Cambridge station. Just north of the A1134, this area of the railway becomes a three-track railway. This area of the existing railway is approximately 1.5km.

Our assessment in the Technical Report indicates that we would need to increase the capacity of the railway between Long Road Sixth Form College to Cambridge station.

Our emerging preferred option

In order to deliver this increased capacity, we propose increasing this area of railway to four tracks. The Cambridge South Project to introduce four tracking ends in the area next to Long Road Sixth Form College. This four tracking would need to be extended through to Cambridge station to accommodate EWR services and other train services calling into Cambridge.

Providing four tracks would also require the following:

- The length of the A1134 bridge over the railway next to Long Road Sixth Form College would need extending to accommodate the extra two tracks
- An extra track to be added to the three-track railway north of the A1134 bridge
- The remodelling of the southern part of the railway as it approaches the platforms at Cambridge station.

Currently, we do not expect any works will be necessary to the Hills Road bridge over the railway; this would be confirmed at the next stage of design.

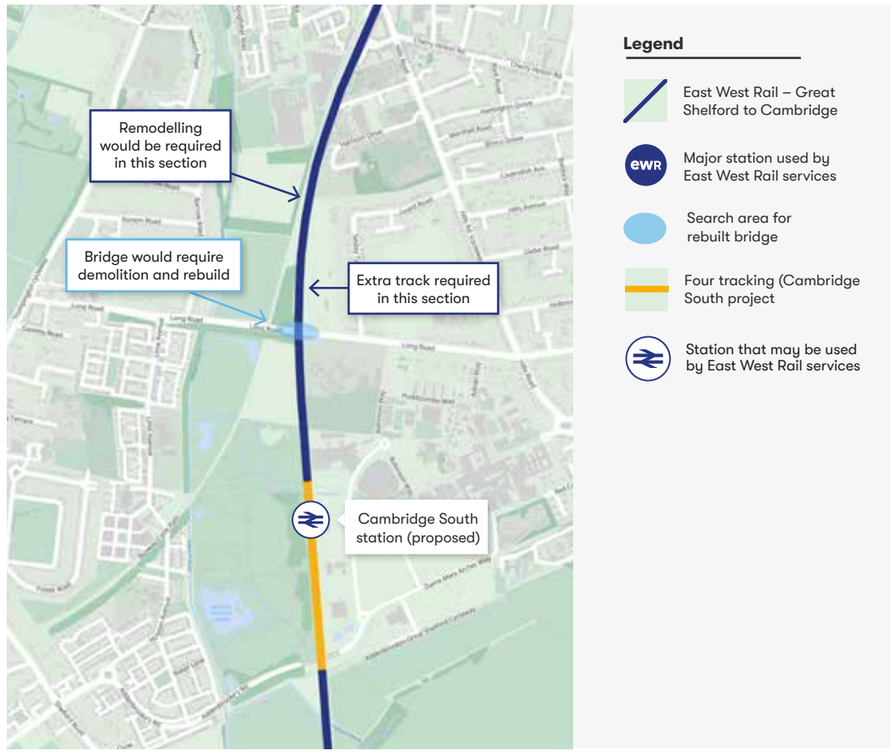


Figure: Emerging preferred option for the railway from Long Road Sixth Form College to Cambridge station

Our considerations

At the next stage of design, we would need to consider the following matters and your response to this consultation:

- The impact of temporary traffic diversions that would be required during the construction works for the A1134 bridge
- The impact of any construction on the railway on the approach to Cambridge station and how this could affect existing train services.

Cambridge station

Cambridge is an important national station. It is estimated that in 2018/19 a total of 10.95 million journeys started or finished at Cambridge station. In addition, a further 0.56 million journeys involved changing train at Cambridge station.

Cambridge station currently features four terminating (or bay) platforms (two approached from the north and two approached from the south) and four through platforms, two of which are joined together. The additional EWR services will mean that there will be insufficient platform space in the current arrangement.

Our proposals

Two new through platforms will be required to accommodate EWR services. The two new through platforms will most likely be located on the east side, where the current sidings are situated. The facilities that these sidings provide will need to be re-located elsewhere on the network; this will be considered at the next stage of design.

EWR services will call into different platforms depending upon whether the EWR and Thameslink tracks are on the west side of the four tracking (at grade segregation at Shepreth Junction) or on the east side (if Shepreth Junction is grade separated). A possible third new platform may be required if EWR services call into the east side of Cambridge station. This is due to EWR services terminating on a through platform and the need to maintain through lines open. This will be confirmed in the next stage of design.

This work would be in addition to other enhancements that Network Rail is considering at Cambridge station. The next stage of design will develop the items already identified and we will continue to work closely with Network Rail to find the optimum solution.

Figure: Cambridge station

Our considerations

At the next stage of design, we would need to consider the following matters and your response to this consultation:

- The relocation of sidings to accommodate new platforms
- Effective coordination of all the work that will be carried out at the station, including the enhancements being carried out by Network Rail
- Impacts from the construction of the new platforms on existing services and the use of the station.

Share your views

41. What do you think is important to consider when developing our proposals for The Shelfords to Cambridge area? In particular, what do we need to take account of:

a. In relation to our options for the Hauxton Road level crossing?

b. In relation to our proposed modifications to the Shepreth Junction?

c. In relation to our emerging preferred option to increase the existing railway line between Shepreth Junction and Addenbrooke's bridge from two tracks to four tracks?

d. In relation to our emerging preferred option to increase the existing railway line between Long Road Sixth Form College and Cambridge station from two/three tracks to four tracks?

e. Anything we should consider at Cambridge station?

You can share your thoughts with us on this question by filling in our online feedback form at **www.eastwestrail.co.uk/feedback.** You can also send us your views by emailing us at **consultation@eastwestrail.co.uk** or writing to us at **Freepost EAST WEST RAIL.**

Alternatively, you can request a paper copy of the feedback form to be sent to you by:

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- Emailing us at **contact@eastwestrail.co.uk**
- Calling us on **0330 134 0067**.

Cambridge station, footbridge

05.

How to respond to this consultation

05.
How to respond to this consultation

Who can take part?

Everybody is welcome to take part in our consultation and we are keen to hear all views.

Why are we consulting now?

We are committed to early and ongoing engagement with the communities we serve.

Consulting on the Project thoroughly at this formative stage will help us to:

- Inform the communities we serve about the development of the Project and make information as widely available as possible
- Gather feedback from stakeholders and the community to help inform the Project design and influence decisions around the further development of the proposals
- Identify key issues and concerns about the impacts and effects of the Project and identify potential ways to avoid or reduce them.

New ways of working during Covid-19

We continue to follow government advice around Covid-19 and the safety of the public and our team is paramount.

It has not been possible to hold large scale public events during this consultation period. In response to this, our approach includes:

- Providing a comprehensive range of accessible information about the proposals
- Engaging through virtual methods.

Each activity has been reviewed in line with:

- Government guidelines
- Comments from local authorities
- Comments from parish councils.

Get all the information you need to respond

If you have questions about anything in the Consultation Document, the topics covered, or would like more information before responding, you can:

- Visit our virtual public exhibition – an online space open throughout the consultation period displaying our full range of consultation materials in accessible and downloadable formats, and ways for you to respond to the consultation

- Join one of our virtual community briefings – a series of online events being held at the beginning of the consultation, hosted by a team of EWR Co experts and members of the design team who can talk to you about key elements of the consultation

- Join one of our virtual expert sessions – our experts will run sessions on specific topics of interest to our communities. These will provide a more detailed look at areas like environmental considerations and station locations. Our experts will answer questions submitted by you, and the sessions will also be made available as videos to download

- Visit our Community hub – a new online platform enabling you to get involved. You can access all of the Consultation materials here and submit your response as well.

- Speak to the team by emailing us at contact@eastwestrail.co.uk or by calling us on 0330 134 0067.

List of consultation materials

This **document** provides the proposals on which we are consulting.
Other documents available which provide further information include:

Document	Description
Consultation Summary	A summary of the Consultation Document
Consultation Document	This document setting out all of our proposals we are consulting you about, with more detail than the Consultation Summary.
Consultation Response Form	Please use this form to share your thoughts. We encourage you to respond online. If you do not have access to the Internet or would like to respond on paper, please let us know.
Consultation Technical Report	This contains detailed, technical information which supports the Consultation Document. It sets out how we have assessed options during design development, and how we have considered environmental factors.
Consultation Drawings	These drawings show the proposed alignment options between Bedford and Cambridge and the location of any proposed works between Oxford and Bedford.
Engineering Long Section Drawing	A Long Section Drawing is available for each route alignment option between Bedford and Cambridge, which shows its vertical alignment (height) relative to ground levels.
You Said, We Did	This document refers to our previous consultation about the route option between Bedford and Cambridge and how your responses informed our proposals.
Appendices	There are several additional documents which provide further background information.
EWR Virtual Consultation	An interactive, online exhibition where all the of the consultation materials can be viewed.
Guide to the proposed Need to Sell Scheme	Consultation guide to our proposed discretionary purchase scheme which aims to support owner occupiers who are unable to sell their property, except at a substantially lesser value, due to the project following the announcement of the preferred route alignment for the railway. We are seeking your views on our proposal.

St Neots level crossing

The impact of Covid-19 on EWR

The team at EWR Co is committed to doing the right thing for the communities we serve: this includes taking account of the impact of Covid-19 while also planning connections for local communities which will last for the next hundred years. Covid-19 undoubtedly generated immediate changes to working practices, but no consensus has formed about the long-term effect this might have on rail demand and we will remain open to new information on this topic

As the area looks to recover from the pandemic, EWR Co's planning will continue to develop and construction will start. Billions of pounds will pour into the local economy through our supply chain and thousands of jobs will be created.

Longer term, EWR will create an unrivalled knowledge arc by linking internationally renowned science parks and world-beating universities, in an environment where high-tech industries cluster, and organisations such as AstraZeneca are at the cutting edge of medical collaboration between private research and academia.

Please give us your views

We're keen to understand what you think about the emerging proposals for the Project, and your views on the broader scheme.

For environmental and cost reasons, we urge as many people as possible to use the online feedback form to share your views. Just go to **www.eastwestrail.co.uk/feedback**.

Alternatively, you can send us your views by emailing us at **consultation@eastwestrail.co.uk** or writing to us at **Freepost EAST WEST RAIL**

For further information, or to request a paper copy of the feedback form to be sent to you, speak to the team by emailing us at **contact@eastwestrail.co.uk** or by calling us on **0330 134 0067**.

Accessibility:

If you or somebody you know requires copies of our consultation materials in accessible formats or an alternative language, please contact us at **contact@eastwestrail.co.uk** or by calling us on **0330 134 0067.**

Closing date for responses

The consultation lasts for 10 weeks and closes on **9 June 2021.**

Please make sure your comments reach us on or before this date.

What happens next?

After the consultation an independent company will:

- Record and analyse all the responses received
- Summarise the responses in a report.

This report will be published on our website.

All of the feedback we receive will be carefully considered as we continue to progress our designs.

The feedback received from all rounds of consultation will be summarised in a consultation report which will be submitted as part of the DCO application.

Data protection

We will collect and process the information you provide to us in order to record and analyse any feedback or questions you raise during the Consultation. If you give us personal information about other people you must first make sure that you have obtained all necessary permission from that person for you to pass this information on to us. We may need to share personal information with third parties which could include public bodies and third parties working with us on the project. You have the right to object to the processing of your personal data in certain circumstances and you may ask us to delete your personal information if you believe that we do not have the right to hold it.

For further information in relation to how we process personal data, please see our Personal Information Charter at **www.eastwestrail.co.uk/personal-information-charter**

06.
Glossary

Glossary

	Term	Description
A	**A428 Improvement Scheme**	The scheme promoted by Highways England to upgrade the A428 between Black Cat roundabout east of Bedford and Caxton Gibbet roundabout west of Cambourne
	Air Quality Management Area	An area designated by a local authority, where it believes the Government's objectives for air quality will not be achieved without additional interventions
	Assessment factors	The factors used to assess and compare different options for the Project
	At-grade junction	A railway junction where tracks cross at the same level. Also known as a flat junction
B	**Biodiversity net gain**	An approach to development that leaves biodiversity in a better state than before the development took place
	Blockade	The closure of a rail route for an extended period (typically more than two to three days)
	Bridleway	A route over which the public have rights to pass on foot, cycle and on horseback
C	**Cambourne North station**	Option for a new station to the north of Cambourne
C	**Cambourne South station**	Option for a new station to the south of Cambourne
	Capital costs	Cost incurred during delivery of a project in purchasing buildings, land, construction works, and equipment as opposed to the costs of operating, maintaining or decommissioning the project
	Clock-face timetable	A timetable arranged so that trains arrive or depart at the same times in the hour, every hour (for instance at 10, 30 and 50 minutes past the hour)
	Code of Construction Practice (COCP)	A public document which will provide contractors and suppliers with details of the measures, controls, and standards of work that they must follow
	Connection stage	Work will be divided into three connection stages which relate directly to a full journey and not just a piece of track: Connection Stage One (CS1): Oxford - Bletchley and Milton Keynes (services may be first opened to Bletchley in a two-phased approach) Connection Stage Two (CS2): Oxford - Bedford Connection Stage Three (CS3): Oxford - Cambridge
	Conservation area	An area of notable architectural or historic interest or importance in relation to which change is managed by law
D	**Development Consent Order (DCO)**	Order made by the relevant Secretary of State to authorise the construction, operation and maintenance of a nationally significant infrastructure project (NSIP). In relation to East West Rail, this would be the Secretary of State for Transport.
	Department for Environment, Food & Rural Affairs (Defra)	UK government department responsible for safeguarding our natural environment, supporting our world-leading food and farming industry, and sustaining a thriving rural economy.
	Department for Transport (DfT)	Government department responsible for the English transport network and a limited number of transport matters in Scotland, Wales and Northern Ireland that have not been devolved.

	Term	Description
E	**Earthworks**	General term for the excavation and placement of soil, rock and other material; or for existing cuttings and embankments
	East Coast Main Line (ECML)	Railway line running from London King's Cross to Edinburgh through Sandy and St Neots.
	East West Rail (EWR)	A proposed new rail link, which would connect communities between Oxford, Milton Keynes, Bedford and Cambridge
	East West Railway Company Ltd (EWR Co)	Company set up by the Secretary of State for Transport to develop East West Rail.
	Embankment	A construction that allows railway lines to pass at an acceptable level and gradient through the surrounding ground that is composed entirely of soil or rock.
F	**Flood plain**	An area of low-lying ground adjacent to a river, which is subject to flooding
G	**Grade-separated junction**	A railway junction where tracks cross at different levels
	Govia Thameslink Railway (GTR)	Govia Thameslink Railway, a train operating company
H	**Highways England (HE)**	The Government body responsible for managing the Strategic Road Network in England

	Term	Description
H	**HS2**	High Speed 2, the new railway line under construction between London and the West Midlands, and beyond.
I	**Impact Risk Zone (IRZ)**	A zone around a Site of Special Scientific Interest used to make an initial assessment of the potential risks posed to that Site by development proposals
	Indicative alignment	The indicative, concept alignment within each Route Option used for the comparison of Route Options A to E in the previous stage of design
	Infrastructure maintenance depot	A depot at which staff and equipment involved in maintaining rail infrastructure are based and from which maintenance operations are coordinated
	Interchange	A station at which passengers may change between trains serving different routes and destinations
K	**km**	kilometres
L	**Level crossing**	A location at which vehicles and pedestrians may cross railway tracks at grade (at ground level). This definition includes accommodation crossings which provide access to specific properties; and crossings which are operated by their users rather than automatically
	Listed building	A building placed on a statutory list, because of its architectural or historical interest, in relation to which change is managed by law
	London & North Western Railway (LNWR)	Historic British railway company, an ancestor of the West Coast Main Line

	Term	Description
M	**m**	Metres
	Marston Vale Line (MVL)	The existing line and services operating between Bletchley and Bedford
	Ministry of Housing, Communities & Local Government (MHCLG)	UK government department responsible for housing, community and local government matters in England
	Midland Main Line (MML)	The main railway route between London St Pancras, Nottingham and Sheffield
	mph	Miles per hour
N	**National Infrastructure Commission (NIC)**	Executive agency responsible for providing the government with impartial, expert advice on major long-term infrastructure challenges facing the UK
	National Networks National Policy Statement (NN NPS)	Sets out the need for, and the Government's policies to deliver, development of nationally significant infrastructure projects (NSIPs) on the national road and rail networks in England, and will be the primary basis against which the Secretary of State for Transport will assess and determine a DCO application for a new railway pursuant to section 104 of the 2008 Act
	Nationally Significant Infrastructure Project (NSIP)	A large-scale development (relating to energy, transport, water, or waste) of national significance that meets the thresholds set in Part 3 of the Planning Act 2008
	Network Rail (NR)	Network Rail Infrastructure Limited, the organisation which owns the majority of the railway infrastructure in England

	Term	Description
N	**Net zero carbon**	The approach of balancing greenhouse gas emissions, offsets or carbon sequestration (for example tree planting or carbon capture schemes), to achieve a net zero state
	Non-motorised users	People travelling on foot, by cycle or on horseback; or by any other means which is not motorised
O	**Office of Rail and Road (ORR)**	A non-ministerial Government department which is the economic and safety regulator for Britain's railways
	Overhead Line Equipment (OLE)	The wires, known as catenary, suspended above railway lines to provide electrical power to trains, and their supporting structures
	Operating costs	Costs incurred in the day-to-day running of the railway
	Option	In this report, 'option' is used to refer to a possible solution that has been considered and is being taken forward for further design and/or assessment
	Oxford-Cambridge Arc (the Arc)	A region defined by the Government and the National Infrastructure Commission covering local authorities across the counties of Northamptonshire, Cambridgeshire, Buckinghamshire and Oxfordshire and the unitary authorities of Bedford, Central Bedfordshire, Luton, and Milton Keynes
P	**PA 2008**	Planning Act 2008
	Passing loop	A section of track used to allow one train to be passed by another train travelling behind it in the same direction

	Term	Description
P	**Permitted Development Rights**	Development that may be carried out by certain categories of (for example) statutory undertaker (such as Network Rail) under deemed planning permission ("Permitted Development Rights"), for certain types of work. Permitted Development Rights also benefit other statutory undertakers
	Points	A junction between two railway lines, that can be set to guide a train to or from either of those lines. Can also be referred to as a switch
	Possession	Restriction of access to a section of railway for the purposes of maintaining or renewing infrastructure, at a particular location and for a particular period of time
	Preferred route option E	The Route Option previously selected as the preferred area between Bedford and Cambridge in which to seek alignments in this phase of developing the Project
	Programme-Wide Output Specification (PWOS)	A document containing detailed requirements for the Project, agreed with the Department for Transport
	The Project	The infrastructure, systems, rolling stock and organisational arrangements which need to be created or modified to deliver East West Rail and its intended outcomes
	Project section	One of six geographical areas used to present infrastructure proposals for consultation
	Public Rights of Way (PRoWs)	A way over which the public have a right to pass and repass.
R	**Reference alignment**	The alignment option against which the performance of other alignment options is assessed

	Term	Description
R	**Rolling stock**	Any vehicle which can run on a railway track
	Route corridor, Route option and Route alignment	Route Corridors are the broad areas within which the new railway might be located, identified as part of the initial 'sift' of possibilities in 2016. Within the preferred Route Corridor, several narrower Route Options were identified and a Preferred Route Option was announced in 2020. The Project is now at the stage of selecting a Route Alignment
S	**Safety risk**	The risk of unsafe practices or situations occurring on the railway that may lead to accidents
	Scheme	A project or a group of projects being promoted or undertaken by a party or parties other than EWR Co with objectives which do not directly facilitate, but may be related to, East West Rail
	Scheduled Monument	A historic building or site considered to be of national importance, placed on a list kept by the Government and requiring Government approvals for any works which might affect the Scheduled Monument
	Shepreth Branch Royston (SBR) Line	The line that connects Cambridge to Hitchin via Shepreth
	Siding	A short track at the side of and opening on to a railway line. They are usually used for stabling trains
	Source Protection Zone (SPZ)	SPZs are defined around large and public potable groundwater abstraction sites. The purpose of SPZs is to provide additional protection to safeguard drinking water quality through constraining the proximity of an activity that may impact upon a drinking water abstraction

	Term	Description
S	**Site of Special Scientific Interest (SSSI)**	The land notified as an SSSI under the Wildlife and Countryside Act 1981, as amended. SSSI include the most important sites for wildlife and natural features in England, supporting many characteristic, rare and endangered species, habitats and natural features
	Statutory consultation	A stage of consultation which a promoter of a nationally significant infrastructure project is required to undertake, under section 42 the Planning Act 2008
	St Neots Option A station	Option for a new station in the St Neots area. Both St Neots station options would be located to the south of St Neots. This would be in addition to the existing St Neots station
	St Neots Option B station	Option for a new station in the St Neots area. Both St Neots station options would be located to the south of St Neots. This would be in addition to the existing St Neots station
T	**Tempsford station**	Option for a new station in the Tempsford area. Both Tempsford station options would be located to the north-east of Tempsford
	Thameslink	Train operator running services between the south coast of England, Bedford and Cambridge
	TWA 1992	Transport and Works Act 1992
	Transport and Works Act Order (TWAO)	A Transport and Works Act Order made by the Secretary of State under the TWA 1992 alongside a deemed planning permission, allowing works to a railway or other transport project to be undertaken
U	**Utility company**	A company that owns equipment which carries and distributes water, electricity, gas or telecommunications. These commodities are collectively known as 'utilities'

	Term	Description
W	**West Anglia Main Line (WAML)**	The main railway route between London Liverpool Street and Cambridge
	West Coast Main Line (WCML)	The main railway route between London Euston and Glasgow

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