

Committee(s):	Date(s):	Item no.
Planning and Transportation	19 July 2011	
Policy & Resources	21 July 2011	
Subject: High Speed 2		Public
Report of: City Planning Officer		For Decision
<p style="text-align: center;"><u>Summary</u></p> <p>This report considers the Government’s proposals for a UK high speed rail network which were published for consultation in December 2010. The main proposals for the ‘first phase’ are for a high speed route between London and Birmingham, with the main terminus in London proposed to be at a redeveloped Euston station. An interchange station is also proposed to be constructed at Old Oak Common, creating a connection with Crossrail. A similar arrangement (a city centre terminus and an interchange station) is proposed for Birmingham. A connection from the new high speed line to High Speed 1 is also proposed as part of the first phase.</p> <p>The consultation also puts forward a strategy for the ‘second phase’ of a high speed network, with two ‘branch’ lines continuing to Manchester and Leeds. The second phase would also provide a connection to Heathrow Airport, although the details of this connection have yet to be determined.</p> <p>There are a number of key issues for the City of London, particularly the onward dispersal of passengers and connections from Euston station, and the wider vision for the future of high speed rail in the UK. However, the City of London has been supportive of high speed rail in the past, and it is recommended that the City continues to support the development of a high speed rail network for the UK.</p> <p>Recommendations</p> <p>It is recommended that Members:</p> <ul style="list-style-type: none"> • Note the contents of this report, and; • Authorise the Transport & Projects Director to respond to the consultation based on the comments in paragraphs 37-42 of this report. 		

Main Report

Background

1. High Speed 2 Limited (HS2 Ltd) was established by the Government in January 2009, with the remit of examining the case for a domestic high speed rail network, the first stage of which would be a high speed line between London and the West Midlands. HS2 Ltd published its findings in March 2010, with the Government subsequently publishing a command paper.
2. Following the General Election in May 2010, the current Government ordered a review of the findings with a view to undertaking a full public consultation. The line of the route was slightly amended, and the public consultation was launched in December 2010. The primary focus of the consultation is on the detail of the route between London and the West Midlands, but it also invites comment on the proposals to extend a high speed rail network further north. The consultation closes on 29th July 2011.
3. The City's Rail Strategy, which was agreed by Policy & Resources Committee in July 2009, supports the principle of a domestic high speed rail network, primarily because of the potential economic benefits and the improved transport connections for London. The City is also a member of Greengauge 21, a not-for-profit organisation which promotes high speed rail as a national economic priority. Planning & Transportation Committee received an information report on high speed rail and the work of Greengauge 21 in February 2010.

The “Y” Network

4. The HS2 Ltd analysis has led the Government to propose a “Y-shaped” core high speed rail network. The first phase of this network would be a link between London and Birmingham, and would include a connection to High Speed 1 (see below). HS2 Ltd expects that the first phase could be operational by 2026 (subject to the outcomes of the consultation). This consultation is seeking comment on the detailed proposals for this first phase of the project.
5. The second phase of the project consists of one high speed line continuing to Manchester and another to Leeds, with additional stations serving South Yorkshire and the East Midlands (precise locations have yet to be determined). HS2 Ltd have been mandated to provide route options and station proposals for the lines to Manchester and Leeds by the end of 2011, and detailed proposals for these lines will be covered by a separate consultation in 2012. The two lines from the second phase

would provide connections to the existing West Coast and East Coast Main Lines, to allow for services using the High Speed line to continue further north using existing routes, and the current consultation is seeking comments on this approach. A map showing the proposed phased network is shown in Appendix 1.

6. The phased approach to construction has been taken in order to ensure that the first section of the railway can be constructed as early as possible, by keeping the Parliamentary process as straightforward as possible. Phased construction will also spread the cost of the project over a greater period of time, thereby limiting the impact on public finances.
7. HS2 Ltd have also outlined the proposed operational elements of a high speed railway. It is proposed to develop high speed lines capable of allowing train speeds of up to 250mph, although due to environmental considerations, a 225mph maximum speed is envisaged at opening of the first phase. In terms of the level of service, up to 14 trains per hour would be able to run in each direction upon opening of the first phase, with future technological developments expected to allow up to 18 trains per hour on the wider high speed network. The new rolling stock would consist of 400m length trains, which would contain up to 1,100 seats. It is also proposed to produce a fleet of shorter, “classic-compatible” trains that are able to serve destinations not on the high speed network.
8. Although the service pattern for the first phase of the network has not yet been finalised, for the purposes of the economic assessment HS2 Ltd have assumed an “opening day” service pattern of three trains per hour in each direction between London and Birmingham (rising to four trains per hour in the peaks) using dedicated high-speed rolling stock. Additionally, three trains per hour would operate between London and Manchester, two trains per hour between London and Liverpool and one train per hour between London and Glasgow, using ‘classic-compatible’ rolling stock. It is proposed that all services would call at Old Oak Common, while services to Birmingham would call at the Birmingham Interchange station.
9. Phase 1 of the high speed network would see journey times from London to Birmingham reduced from 1h 24m at present to 49m. Completion of the second phase would reduce journey times between London and Manchester from 2h 8m at present to 1h 13m; between London and Leeds journey times would reduce from the current 2h 20m

to 1h 20m; and journeys between London and Edinburgh and Glasgow would reduce from 4h 30m at present to 3h 30m.

The first phase of the network

London terminus

10. HS2 Ltd shortlisted three main options for a London terminus, from an initial long list of over 25 options including sites at Liverpool Street, Victoria, Farringdon and Waterloo. The three options taken forward for more detailed analysis were a redeveloped Euston station on a single deck, a redeveloped Euston station on a double deck, and a new station built on the land immediately north of the existing Kings Cross station. The consultation has taken forward the single-deck Euston station as the favoured option, primarily as it provides the best option for longer-term development in the surrounding area and is not as expensive as the double-deck option. The construction of the new station will be phased in order to ensure that a sufficient level of service for 'classic' services is maintained.
11. Another reason for selecting Euston is the potential to cater for onward dispersal of passengers. The existing Northern and Victoria London Underground lines serve the station, and consideration is being given to the DLR western extension from Bank and/or the Chelsea-Hackney Line serving Euston in the future. HS2 Ltd is working closely with Transport for London in order to ensure that this issue is considered as part of their wider strategy.

Main route

12. From Euston HS2 would run in tunnel for approximately 4.5 miles to Old Oak Common, where HS2 Ltd have included proposals for an interchange station. This was requested by the Government in order to provide an interchange with Crossrail, and the Old Oak Common site will also allow for interchange with the Great Western Main Line. The interchange is intended to relieve the pressure of crowding at Euston by providing direct connections to areas including the City of London, Canary Wharf and Heathrow Airport.
13. Beyond Old Oak Common the route would run on the surface along the Chiltern line corridor towards West Ruislip. The route would then enter a tunnel immediately before the M25, resurfacing north of Amersham and continuing mostly in tunnels or cuttings at surface level along the A413 corridor. Beyond Aylesbury, the route would broadly follow the disused Great Central line corridor towards Kenilworth and Coventry.

14. HS2 Ltd have proposed two stations serving the West Midlands. The 'Birmingham Interchange' station would be located at the point where the high speed line passes the National Exhibition Centre and Birmingham Airport, similar to the existing Birmingham International station. A new high speed terminus is proposed at 'Curzon Street' in central Birmingham, located in the city's 'Eastside' area which has been earmarked for extensive regeneration and is within close proximity to the city centre and the existing New Street and Moor Street stations.

Heathrow

15. The passenger demand for Heathrow arising from the first phase of the high speed network is expected to be met by the Crossrail connection at Old Oak Common, but it is proposed that a spur be constructed as part of the second phase, when demand for high speed services has matured and more potential markets (e.g., Manchester and Yorkshire) are connected to the network. However, the junctions connecting the spur to the 'core' network would be constructed during the first phase in order to minimise disruption to services between London and the West Midlands once they are operating.

High Speed 1

16. It is also proposed to provide a direct rail link between the high speed network and the existing HS1 (which connects St Pancras International and the Channel Tunnel). This link will be a single track running in a tunnel from Old Oak Common to the existing North London Line, where the line will then continue on upgraded infrastructure at surface-level to connect with HS1 north of St Pancras International. It is necessary to construct this link as part of the first phase of the project due to site constraints at Old Oak Common. Up to three trains per hour in each direction could use the link, allowing for direct connections to continental Europe from destinations north of London.

The Government's case for HS2

17. Demand for longer-distance rail travel has grown significantly over the last fifteen years, with the total number of journeys doubling between 1994/95 and 2009/10. This growth has not been adversely affected by the economic downturn, with an additional two million journeys made in 2009/10 compared to 2008/09. This increase in journeys has led to overcrowding on a number of key routes including the West Coast Main Line, the East Coast Main Line and the Midland Main Line.
18. Despite the major capacity interventions such as the Thameslink Programme, the upgrade to the WCML and Crossrail, there is still

expected to be significant levels of overcrowding in the long term. For example, demand on the London-Manchester section of the WCML is expected to grow by 60% by 2024. Rail freight is also expected to grow over the next decade, putting further pressure on the existing infrastructure.

19. HS2 Ltd forecast that, in the absence of HS2, demand for long distance rail travel between London and the West Midlands between now and 2043 will more than double. The forecast increase in demand without HS2 would mean that even with the additional capacity currently planned for the WCML, the number of passengers would increase to the extent that at peak times the trains on the WCML would be severely crowded, and the average number of seats occupied on trains leaving London would be around 76% across the day.
20. With HS2 in place, demand would increase still further as improved journey times and options are made available, and an increase in overall capacity is delivered. With the introduction of HS2 it is forecast that 136,000 passengers would travel on the core HS2 line each day. Two thirds of these passengers would be those who previously used the classic rail network.
21. The Assessment of Sustainability suggests that the benefits to businesses which would arise directly from the faster journeys potentially enabled by HS2 are valued at around £11bn over a 60 year period. Further economic benefits, by effectively bringing cities ‘closer together’ and opening up areas to the effects of wider competition and wider markets, are expected to amount to an additional £3bn and £1bn respectively over the same 60 year period.
22. Additionally, HS2 would connect stations in city centres, which is regarded as a significant advantage over aviation in terms of time savings and convenience. The total monetary value of these benefits, including factors such as fewer road accidents and better air quality, are expected to amount to £21.8bn over 60 years.
23. The Assessment of Sustainability also describes the likely effects of HS2 on producing greenhouse gases, although it does not give one definitive figure. The best case scenario, whereby National Grid electricity generation will shift to more carbon-efficient methods, would result in a decrease in CO₂ emissions of 27 million tonnes over a 60 year period. The worst case scenario, which assumes the carbon efficiency of electricity generation remains as it is today, would result in an overall increase in CO₂ emissions of 24 million tonnes over the

same period. However, HS2 Ltd also suggest that, whichever scenario is borne out, the contribution of HS2 to greenhouse gases is insignificant compared to other modes such as road or air travel.

24. HS2 Ltd estimate that the total costs through the 60-year appraisal period would be approximately £24bn in present value terms. This would be partially offset by increased revenue which would grow by almost £14bn, and takes account of lost revenue from passengers who switch from existing rail services onto the first phase of HS2. Phased construction of the first phase will allow costs to be spread over the lifetime of the project, with no more than £4bn expected to be spent in any one year.
25. The consultation document also sets out potential funding streams for the first phase of HS2, although these are not precise at this stage. A significant amount of public expenditure will be required to finance the project, and this will be managed by phasing the construction process. The Government also anticipates third party contributions to the financing of those elements of the project from which they will benefit, and identifies future property development as a further source of funding.
26. The HS2 proposals have inevitably attracted some opposition on value for money and environmental grounds, particularly from certain communities close to the proposed route. The balance between overall economic benefits to the UK and potential local environmental issues will be a matter for Government to consider in light of responses to the consultation.
27. The consultation closes on 29th July 2011. The outcomes of the consultation and the final decision from the Government will be published before the end of 2011. Subject to the outcomes of the consultation, detailed design and environmental appraisals would be undertaken, followed by the deposition of a Hybrid Bill in 2013. Construction is then expected to commence in 2017, with the first phase of the high speed network opening in 2026. The second phase could potentially open in 2032.

City of London's position

28. Around 700,000 people are employed in financial services across the rest of the UK; a high speed rail network would increase the level of accessibility to other UK financial and business centres whilst at the same time reducing journey times, improving the competitive position of the City as the global leader in these fields. The economic case for

HS2, published by HS2 Ltd, shows that business passengers value time savings on train journeys, which would be of further benefit to City businesses.

29. As mentioned above, current forecasts suggest that additional capacity will be required on the UK rail network in the longer term, with the most pressing need for additional capacity occurring on the West Coast Main Line. An initial high speed line serving the London–West Midlands corridor would allow for some services to be transferred away from the WCML, thus freeing up capacity which could then be used to improve local and regional services, including London commuter services.
30. Euston is recommended by HS2 Ltd as the London terminus for the high speed line, and the Mayor’s Transport Strategy also considered Euston to be the most suitable option. The issue of onward dispersal will be critical, and to this end further consideration needs to be given to reducing background demand at Euston; a potential solution would be to divert the existing ‘slow’ services currently terminating at Euston on to Crossrail, releasing capacity at Euston. This would have the additional benefit of providing the City with direct Crossrail services to WCML destinations such as Tring, Milton Keynes and Northampton.
31. Despite the dispersal capabilities of Old Oak Common on to Crossrail and potentially on to other lines such as the London Overground, around two-thirds of southbound passengers on HS2 are expected to continue to Euston. The existing connections at Euston (both branches of the Northern line and the Victoria line) are expected to experience around double the number of peak passengers once HS2 is operational, with the Northern line Bank branch handling the largest number of passengers.
32. Consideration therefore needs to be given to more major interventions, such as the option to extend the DLR westwards from Bank to Euston via City Thameslink, in order to sufficiently handle the increased numbers of passengers in the long term. In addition to the dispersal benefits at Euston, the DLR extension from Bank would allow for an increase in the frequency of DLR services which are currently constrained by the terminating arrangements at Bank, and would reduce crowding levels on the Northern and Central lines and also on National Rail services between Fenchurch Street and Limehouse.
33. It should also be noted that consideration is being given to amending the safeguarded alignment of the Chelsea-Hackney Line to include a

stop at Euston, although this scheme is currently unfunded. A map showing existing, committed and potential connections from HS2 to the City of London is shown in Appendix 2.

34. The lack of capacity at UK airports, particularly in the south east, is an associated problem for City businesses that rely on long-haul aviation. A shift from short-haul aviation to HS2, which has been identified as approximately 6% of the market for high speed rail by 2043, would potentially free up some capacity at airports which could then be utilised to improve services to long-haul destinations.
35. A number of other London Boroughs and Transport for London have expressed concern about the proposed link between HS2 and HS1, which will be a single track connection partly in new tunnel and partly running along the existing North London Line. The current proposal would allow for up to 3 trains per hour in each direction, which will be sufficient to meet demand upon opening. However, it is uncertain as to whether a single line will provide enough capacity in the future, particularly should the high speed network be extended further north. There are also concerns that the proposal would reduce capacity on the North London Line and constrain the ability of London Overground to operate current and planned future services.
36. Although the proposal to develop the high speed network in stages is welcomed, further consideration needs to be given at this stage as to how far the high speed network will eventually extend. While a network of high speed lines to Manchester and Leeds will improve journey times to these and other cities, significant additional journey time savings would be achieved by extending the network further, for example northwards to northern England and Scotland. An overall vision for the future high speed rail network in the UK should be outlined at this stage.

Proposed response

37. As has been noted above, the City of London has supported the concept of a domestic high speed rail network, primarily because of the increased connectivity that would be provided between London and the rest of the mainland UK. Additional capacity will also be created for both high speed and existing rail services, which will become an increasingly important factor, particularly in London and the South East as population and employment increase and existing capacity is exhausted. It is therefore proposed that the City of London supports the proposals put forward in the consultation.

38. It is recommended that the City of London supports the 'phased' approach to construction of the network, given the most pressing need for additional capacity on the corridor between London and the West Midlands and the lower impact on public finances. It is also recommended that support be given to the second phase of the network to Manchester and Leeds, but emphasise that a strategy for extending the network beyond these cities should also be set out at an early stage.
39. It is further recommended that the City of London supports the proposals to include connections to Heathrow Airport and HS1. A genuine 'network' needs to connect main transport hubs, and so provision for a connection to Heathrow, the UK's main international hub, is crucial, regardless of the future expansion of the airport. As is mentioned above, some form of connection to HS1 is also important, allowing further journey connections to both south-east England and continental Europe. However, it is recommended that the City of London expresses concern over the suitability of a single track connection, and suggests that more work be undertaken to devise a more suitable, long-term solution.
40. Whilst supporting the overall concept of a high speed rail network, it is recommended that the City of London puts forward strong concerns about the capability of existing London Underground lines serving Euston to cater for the anticipated additional demand that will be placed on them. Given the significant increases in the number of passengers arriving at the station with the arrival of high speed rail - around two thirds of all southbound HS2 passengers - it is unlikely that relatively minor increases in capacity on the Northern line (as currently proposed in the Mayor's Transport Strategy) will be sufficient.
41. It is therefore recommended that the City of London supports the suggestion of diverting the 'slow' services from the West Coast Main Line on to Crossrail, allowing crucial capacity to be released at Euston whilst at the same time maximising the potential of the Crossrail infrastructure. Additionally, more major interventions, such as the extension of the DLR from Bank to Euston which the City strongly supports, and the construction of the Chelsea-Hackney line need to be considered as part of the HS2 strategy.
42. It is also recommended that the City of London urges the Government to set out a longer-term vision for the future of high speed rail in the UK, more specifically giving consideration to how the network may be extended beyond the existing proposals. However, support should be given to creating connections to existing routes in the medium-term to

allow for longer-distance journeys to be operated regardless of the continuation of the high speed network.

Strategic Implications

43. The City of London's support for HS2 would align with a key theme of the Community Strategy, namely working towards a City which "is competitive and promotes opportunity". The Community Strategy also states that, "an efficient, accessible and effective transport network is vital if the City is to maintain its position as an international financial centre", and improved connections to the rest of the UK and mainland Europe which will be delivered by HS2 will be a major boost to City accessibility.

Consultees

44. The Town Clerk has been consulted in the preparation of this report.

Conclusion

45. The current consultation on a UK high speed rail network was launched in December 2010. The main proposals for the 'first phase' are for a high speed route between London and Birmingham, with the main terminus in London proposed to be at a redeveloped Euston station, and an interchange station at Old Oak Common, creating a connection with Crossrail. A 'second phase' would extend the network further north on separate lines towards Manchester and Leeds, and a connection to Heathrow Airport would also be constructed.
46. It is recommended that Members note the contents of this report, and authorise the Transport & Projects Director to respond to the consultation based on the comments in paragraphs 37-42 of this report.

Background Papers:

[High Speed Rail update, Planning & Transportation Committee, 2nd February 2010]

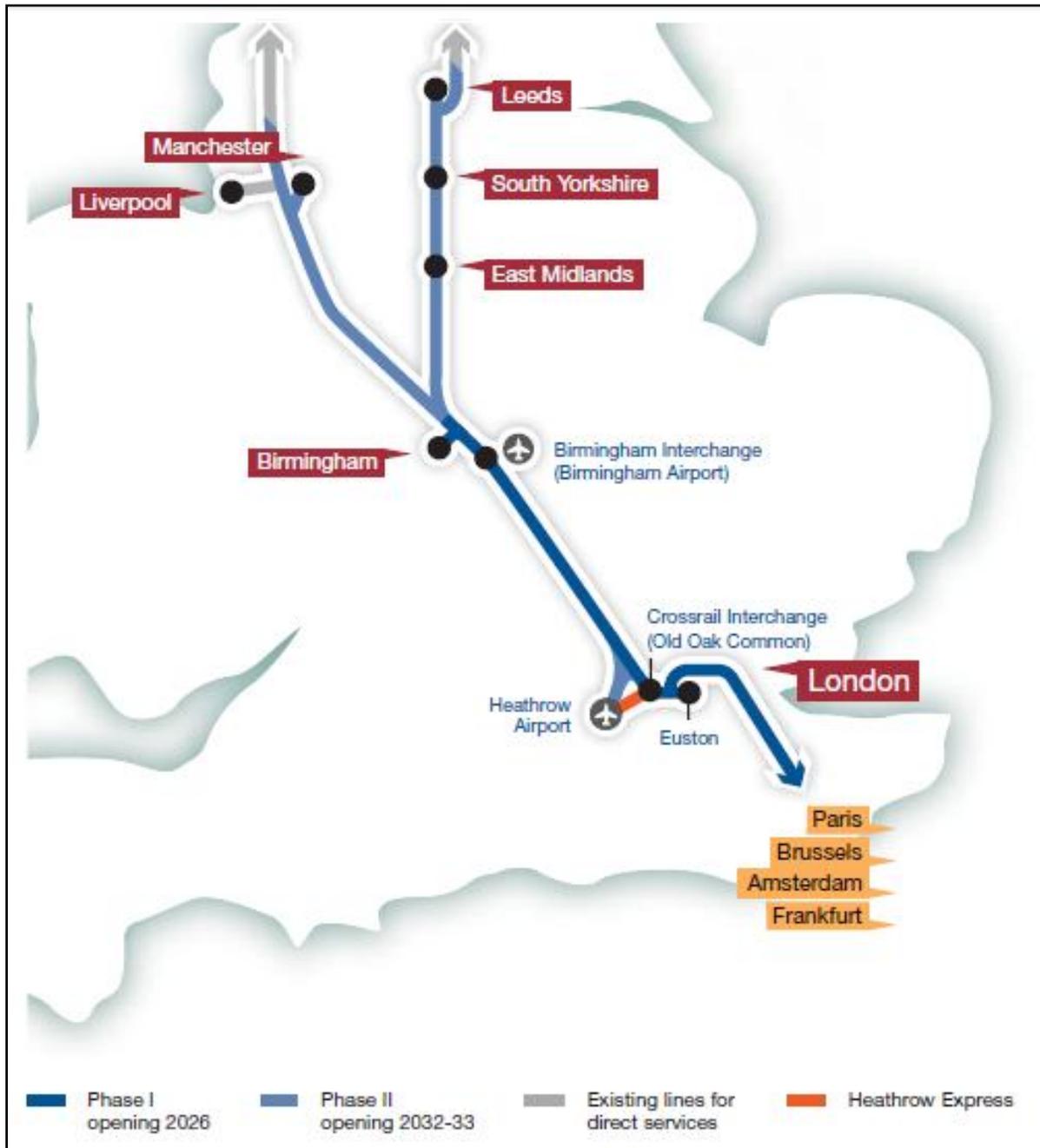
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Appendix 1 – Proposed first and second phases of a high speed network



Appendix 2 – Existing, committed and potential City of London connections to HS2

