

Report of the Director of City Strategy

## **High Speed Rail**

### **Summary**

1. This report advises on the government's initiative to create a new company High Speed Two (HS2) to investigate the high speed rail issue. It sets out the position of the City Region and also advises on the outcome of the recent review undertaken to establish a policy position for York.
2. The 'York review' (undertaken prior to the Government's HS2 announcement) concluded that the likelihood of a High Speed Rail connection for York would be remote given the need to minimise the number of stops and the proximity of the larger economies of Leeds and Sheffield. The review suggests that York should continue to support the High Speed Rail initiative particularly for the City Region and that it should seek to promote the enhancements to the East Coast Main Line (ECML) and the trans Pennine service to increase capacity and reduce journey times.

### **Background**

3. In January 2009 the DfT published "Britain's Transport Infrastructure: High Speed Two" announcing the creation of a new company "High Speed Two" (HS2). The purpose of the new company was to help consider the case for high speed services from London to Scotland and as a first stage to develop a proposal for a new line from London to the West Midlands. It would also provide advice to Ministers on the potential development of a high speed line beyond the West Midlands at the level of "broad corridors", considering in particular the potential to extend to Greater Manchester, West Yorkshire, the North East, and Scotland.
4. HS2 has now produced a report to Ministers (published in March 2010) that is sufficiently developed to form the basis for public consultation in autumn 2010 should Ministers decide to take this project forward. The advice also includes financing and construction proposals as well as a proposition for how best to move through the planning process within an indicative outline timetable.
5. The objectives for HS2 are principally, increases in capacity and speed to optimise journey times whilst ensuring proper integration with land use, enhancing of economic growth with improved connectivity, building in freight capability, and seeking to gain modal shift from cars and from air travel.

6. As well as these objectives HS2 are charged with considering better use of the existing network and expanding electrification.
7. As a result of this new initiative officers took advice from Arups, who are one of the leading consultants in this field. Officers subsequently commissioned them to prepare a high level report that brought together all the independent studies carried out since 2000 as well as a view about what other rail opportunities there may be for York in support of its economic development.
8. Arup's report is attached as an annex and is summarised below.
9. Since 2000 there have been a number of independent studies that have reported. Each have proposed different alignments and corridors linking up areas of the country up to Scotland. These are described in the Arup Report. Each of these proposals describes the economic benefit through connectivity, journey time saving and increased capacity.

### **City Region Position**

10. In July 2009 the City Region Transport Panel considered a paper on High Speed Rail and Electrification. The report identified the benefits to the city region of a high speed link. The City Region has registered as a stakeholder to HS2 and a letter was sent to the government supporting a high speed link between London and the north.
11. The consultant's report, which supported the paper, made a number of conclusions. The high speed rail initiative should be developed as a project to deliver national economic transformation, there is a strong economic case for a high speed rail link to Leeds and Sheffield, it is important for the city regions to secure upgrades to the existing lines to improve connectivity and capacity in the short to medium term, improvements to commuter routes would also enhance capacity and connectivity, all options should be kept open for a high speed link to the north, but with particular scope for a more easterly alignment to be considered.

### **York Review**

12. York is well served by strategic rail routes to London, the Midlands, Leeds and Manchester. Some of these routes suffer from one or all of the short comings of long journey times, infrequency or lack of capacity either at present and into the future.
13. There has been significant increase in demand for rail travel of 27% in the last 5 years and the future predictions are 1-2% increase per annum on routes to London and Manchester and even higher to the midlands.
14. This emphasises the need for improved rail services to all major economic centres. In the peak periods there is significant under capacity resulting in overcrowding.

15. The East Coast Main Line (ECML) is currently operating close to capacity due to the mix of passenger and freight services operating on the line, a number of bottlenecks approaching London and some services only operating 5 car formations. Journey times are 5 minutes slower than they were in the 1990's as a result of these problems.
16. Journey times from York to Manchester are around 80 minutes due to a number of engineering constraints and the number of intermediate stations. There is significant under capacity in the peak periods.
17. There are two basic strategic opportunities to address these short comings either, enhancements of the existing routes or, the high speed rail option.
18. The review concludes that:
  - York's economy will benefit from being connected to either an enhanced ECML service or by a new HSR service with increased connectivity, reduced journey times and increased capacity.
  - The likelihood is that Leeds, as a major economic centre will be connected to the HSR network either directly into the centre of the city or through a "parkway" stop on the outskirts. Because of the relative proximity of York to Leeds it is unlikely that York could make a sufficiently strong enough argument for a stop on the network. However York could benefit if the parkway stop were located to the east of Leeds and connections times from York were reduced.
  - York could be connected to a HSR network either by local services to say Leeds, it could be served by a "Parkway" stop to the east of Leeds or it could be a service directly into York station.
  - In the short term CYC should continue to lobby for improvements to the ECML but longer term should support the introduction of a High Speed rail line connection either directly or via a parkway station.

### **Enhancements of the Existing Routes**

19. Network Rail's Strategic business plan has identified a number of capacity improvements to be delivered by 2014 at a cost of £560m. The improvements include rail infrastructure particularly approaching London which will reduce journey times by 5 minutes back to 1990 levels, changes to the passenger timetable to create 6 passenger services each hour and therefore increase capacity, new rolling stock to increase both capacity and reduce journey times by a further 5 minutes.
20. Overall journey times could be reduced by around 10-15 minutes when the package of measures of improved timetabling, new rolling stock and rail infrastructure improvements are completed.

### **Potential High Speed Rail Options that have been proposed**

21. Since 2000 there have been several routes proposed either up the west or east coasts that link London with all the major economic centres up to Scotland (shown in the Arup's review attached). These routes are intended to avoid existing bottlenecks in the current network and provide the additional capacity that is needed up to at least 2036. Typically these services would operate at 185mph and would be a major competitor to air services.
22. Only the Strategic Rail Authority of 2001 showed York being connected directly to the network and so it is difficult to estimate the journey time savings of the various proposals. However if York were to be connected then journey time savings to London of between 15 and 25 minutes could be possible with further savings to Heathrow, Birmingham and Manchester.
23. Each of the options have been costed on different bases between £40m/km and £100m/km depending upon the alignment and the need for tunnelling. Clearly the cost of the project will be in the order of several £billions. It was estimated that the earliest the network could be completed would be 2025.

## **Outcomes of HS2**

24. The paper produced by HS2 in March 2010 concludes that high speed rail will be the best way of accommodating increasing demand for inter-city travel and that other options are inferior and would be more environmentally damaging e.g. increasing motorway capacity.
25. HS2 had been tasked with considering an initial route from London to Birmingham. It concluded this was too small to be worthwhile and the government has therefore endorsed HS2's recommendation of a Y-shaped network linking London to Birmingham and on to Manchester on the west and East Midlands, Sheffield and Leeds on the east (a total of 335 miles). (see annex B). Journey time savings of 60 minutes would be made on the Leeds-London journey, reducing the journey time to 1 hour 20 minutes.
26. The government says that from the outset the high-speed lines will be used by trains serving Liverpool, Newcastle, Glasgow and Edinburgh but these destinations will be connected by existing rail lines beyond Leeds and Manchester.
27. HS2 estimates that the cost of designing and building the first 120 miles between London and Birmingham will be £15.8bn - £17.4bn. The whole Y-shaped network would cost an estimated £30bn.
28. As well as speeding up inter-city travel, high speed rail will also free up capacity on the existing rail network for more services between London and growth areas as well as for freight.
29. The new passenger hub is likely to be Euston with a link to Heathrow Express rather than directly to Heathrow. No comments were included on the existing ECML, which currently terminates at Kings Cross.

## **Consultation**

30. A consultation on HS2's detailed recommended alignment between London and the West Midlands will take place in the autumn, after further work on possible mitigation measures has been completed. Ministers have also requested HS2 to undertake detailed work on route options for lines from the West Midlands to Manchester, Sheffield and Leeds for early in 2012.
31. Officers attended a meeting with the Association of Northeast Councils on 3<sup>rd</sup> March 2010 to gain a common understanding of policy position, important issues and to consider a common approach to further lobbying.

## **Options**

32. Option 1 – Agree the policy position in the Arup review and support the HS2 proposals in the longer term whilst continuing to lobby for enhancements to the ECML
33. Option 2 – Do not agree the policy position in the Arup review.

## **Analysis**

34. Option 1 - The Arup review considered that a direct link to high speed rail at York would be unlikely. The outcomes of the HS2 study have proved this to be correct. The number of stations on a high speed rail line would need to be minimised in order to maintain the journey time savings and cost benefit of the scheme.
35. The exact nature of the connection at Leeds has not been determined and could be city centre or parkway station. A parkway station to the east of Leeds would provide York with improved access to the high speed line, consistency of journey time and better accessibility to rail and high speed rail for the wider York area.
36. The timescales for delivery of high speed rail are estimated as 2026 for the opening of the London to Birmingham section and extensions to Manchester and Leeds in subsequent years. Continued investment in the ECML is essential during this period to ensure the planned improvements and expected reductions in journey times are delivered. New clock face timetabling has already been proposed and further improvements to stock and infrastructure are expected by 2014.
37. There is a long lead in time on delivering new rolling stock. It is essential that York, as part of the city region, actively lobbys for improved rolling stock to ensure that upgrades are delivered in the region and are not lost to other areas that will also be presenting a business case for capacity and quality improvements. A key element of any future investment will be the electrification of the line between York and Leeds as part of the TransPennine route. If York is not to be directly connected to the high speed rail line then faster running speeds can be achieved and extra capacity added through electrification.

38. Option 2 – As HS2 has now reported and has not recommended extension of the line beyond Leeds and has recommended stations at Sheffield and Leeds any efforts to continue to lobby for direct connections for York are unlikely to be supported by the government or the city region.

### **Corporate Priorities**

40. Any improvements to rail connections would contribute to the Council's priority in promoting a Thriving City by reducing the traffic congestion and improving the attraction of the City to Tourists.

### **Implications**

41. This report has the following implications:
- **Financial** – No impact
  - **Human Resources (HR)** - No impact
  - **Equalities** – As this is an information report there will be no impact on equalities, however if any future works are promoted then this issue will be considered at that time.
  - **Legal** - No impact
  - **Crime and Disorder** - No impact
  - **Information Technology (IT)** - No impact
  - **Property** - No impact
  - **Other** – No impact

### **Risk Management**

42. There is a risk to the Council's reputation if it does not continue to engage through the City Region and other forums in further discussions to try and identify improvements to the ECML as well as lobby for the best outcome for York in relation to the high speed rail connection. The risk has been assessed as below 16 and therefore only requires monitoring.

### **Recommendations**

43. It is recommended that:
- (i) The policy position for York as set out in the Arup review is agreed and that further work focuses on:
    - Reducing journey times between Leeds and York, particularly through the electrification of the line between Leeds and York,

- Promoting the benefits of any HS2 parkway stops being located to the east of Leeds, and
  - Securing shorter term improvements to the ECML
- (ii) Members and officers continue to lobby through the appropriate forums for ongoing investment in the ECML.

Reason: To ensure that the advantages of high speed rail connections are realised for York and that continued investment in existing rail infrastructure and facilities is not delayed or cancelled given the indicative 2026 start date for HS2.

### Contact Details

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**Report Approved**

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**Specialist Implications Officer(s)**

**Wards Affected:** All

**For further information please contact the author of the report**

**Background Papers:**

Arup High Speed Rail review paper  
HS2 command paper

**Annexes**

Annex A – Arup High Speed Rail review paper  
Annex B – HS2 recommended high speed rail route