

# 'Euston Cross' prop

## Railway Lords' HS2 cross-London alternative



**A** radical cross-London option for the south end of the High Speed 2 route was submitted to the Secretary of State for Transport in early March by Lords Bradshaw and Berkeley.

Their report proposes a combined 'Euston Cross' station complex for trains from Midlands, Northern and Scottish inter-city and high-speed railways, with extensive passenger transfer capability.

This would be achieved by an east-west deep-level HS2 tunnel, with platforms under the northern part of Euston, St Pancras and King's Cross stations. The through station would replace additional Euston terminal capacity for HS2, and fewer platforms overall could be needed with through train operations.

Some HS2 trains would use the existing Euston terminus. The report suggests capacity could be freed up for them by diversion of existing suburban trains to Crossrail.

The Euston Cross proposal would have two single track tunnels from Old Oak Common, via Queen's Park, then under Regent's Park to the new

Euston Cross station.

The two tunnels would continue to join HS1 tunnels between Stratford and St Pancras.

At Queen's Park, the tunnels would have a link to the West Coast main line, to allow HS2 UK-gauge trains to reach the existing Euston station.

There would be no HS2 to HS1 link from Primrose Hill to York Way, currently proposed by the DfT, with its severe impact through Camden.

The proposal claims to offer capacity for through domestic, as well as international, trains: between HS2 and the West Coast main line in the west and East London, Kent and East Anglia in the east. It could therefore provide surface access for many airport hub and expansion schemes east of London currently being considered by the Davies Commission.

Lords Bradshaw and Berkeley said: 'We believe that this has many transport and cost benefits, and that making the changes required now would still allow HS2 to be built and operated as far as Old Oak Common, with good connections to Crossrail,

even if the remainder of the works at Euston and beyond took a little longer to complete.'

They urged the Secretary of State to instruct HS2 to investigate this alternative as a matter of urgency, and requested participation with others in such discussions as it is taken forward.

They acknowledge advice from consultant Jonathan Roberts in preparing their report.

### **Euston Cross benefits**

**The proposal lays claim to a number of other 'key wins,' including:**

- Greater national and London/Home Counties economic capacity: avoids most economic negatives caused by land take in the Euston area.
- Largely cost-neutral: omits many current HS2 proposed works including high-risk elements, substitutes others.
- Capability of phased development: eases financial pressures on national economy.
- Environmentally much stronger than current HS2 proposals: less disturbance and land take in Euston

and Camden.

- No impact on existing North London line passenger and freight operations.
- Avoids the current HS2-HS1 scheme, with its low capacity and inability to be used by domestic services.
- Maximises international connectivity: direct interchange between Euston and St Pancras.
- Option to reduce HS2's Old Oak interchange (HS2/Crossrail/Great Western) costs and complexity: international platforms could be moved to Euston Cross, if separate platforms still necessary.
- Future-proofed cross-London east-west rail capacity beyond Crossrail.
- Relief of interchange pressure at Euston as HS2 load is distributed.
- Direct Crossrail-West Coast services for London and Home Counties commuters.
- Direct London & Home Counties regional services, such as Milton Keynes-Kent.

### **Design**

Euston Cross would have at least two pairs of platforms (more if separate



# Proposal aired for HS2



The 'Euston Cross' proposal.

The Railway Lords claim their 'Euston Cross' proposal would avoid any need for extensive works at on the surface Euston. A Pendolino departs from Euston for Manchester on 8 May 2009.  
*Brian Morrison*

ones are needed for any through international trains calling). The new platforms would be linked to the three main line surface stations and Underground ones.

A lower scale of construction works would be needed to expand the Euston terminus approaches and any additional platforms, compared to HS2 proposals.

There would be no HS1-2 link from Primrose Hill to York Way, currently proposed by HS2, with severe impact through Camden.

## Capacity

West Coast main line local suburban services would be diverted into Crossrail near Old Oak Common, a proposal already being investigated by the DfT. This would save a number of Euston surface station platforms and make them available, after adaptation, for inter-city or HS2 trains.

Remaining and revised commuter and longer distance trains on the existing West Coast main line would continue to use Euston surface station. With a link in the Kensal/Queen's Park area, West Coast trains

could also traverse London via the Euston Cross route.

HS2 trains could go either to Euston surface station via a link at Queen's Park, or to Euston Cross. Some could continue to Stratford and Ebbwfleet.

Much of Euston HS2's land take is caused by platform capacity for an entire railway's terminating trains. This would not be needed if trains could continue towards HS1 via Euston Cross. A proportion of domestic and international high-speed trains could continue to Stratford International and Ebbwfleet. Others could terminate at Euston Cross, but continue to the Temple Mills spur for servicing and to reverse in the Eurostar depot.

## Impact

Interchange handling would be easier by spreading the flows through three London stations and onto all their distribution networks including Thameslink.

The Kensal/Queen's Park area 'would experience some additional impact' because of the West Coast connections to/from the HS2 tunnel,

though this 'would be compensated' by no impact in the Primrose Hill/Camden Road area as is currently expected.

There would be new intermediate ventilation and emergency exit shafts at different locations to the present proposal. The Old Oak Common eastbound HS2 tunnel design would be simpler.

## Cost balance

### The main savings are:

- Proposed HS2 twin tunnels between Old Oak Common and Euston HS2 platforms.
- Proposed HS2-HS1 single-track tunnel between Old Oak Common and Primrose Hill.
- Surface works and surface mitigation between Primrose Hill, Camden Road and HS1 tunnel.
- Full-scale Euston HS2 terminus with all environmental, residential and business upheaval. Other community impacts reduced by the new Euston proposals.
- Euston interchange arrangements mitigated partially by some passenger interchange and onwards distribution being re-allocated to the

St Pancras/King's Cross area.

- Passenger and terminus capacity impacts of fewer commuter trains serving Euston terminus, after diversion of West Coast local trains to Crossrail 1 and some West Coast longer distance commuter trains to the Euston Cross route.
- Depot and servicing sidings savings if HS2 can use Temple Mills Eurostar depot.

### The main new costs are:

- HS2 twin tunnels between Old Oak and Euston Cross and station at Euston Cross, with interchange works at St Pancras and King's Cross.
- Connection works with HS1/Temple Mills.

### Costs transferred between the previous scheme and the new one include:

- Reconstruction of Euston station with larger public area, to achieve greater integration with surrounding community and green transport links.
- Passenger links between Euston and St Pancras/King's Cross with Crossrail 2, and other public transport.