Proposal for a North West London Parkway on High Speed 2

Introduction

Rail Planning Consulting wishes to propose a North West London Parkway station on the High Speed 2 railway line.

The Department for Transport is undertaking a consultation on the initial proposals for a High Speed 2 railway line. Our response to this consultation is incorporated into this document. Therefore this document serves two purposes, both as a response to the consultation on the initial proposals for a High Speed 2 railway line, also to propose a North West London Parkway station on the High Speed 2 railway line.

Conventional rail services at North West London Parkway

North West London Parkway (NWLP) is proposed as a parkway station on the High Speed 2 (HS2) railway line, however it is more than that. It is intended to provide Heathrow Airport with a range of conventional rail services making use of the proposed link to Heathrow from the HS2 line.

North West London Parkway (NWLP) is designed to make London more accessible via a range of services including provision of a parkway station for Crossrail.

NWLP is designed in conjunction with an express railway line linking to the existing line to Swindon, thereby facilitating express (possibly high speed) services to South Wales.

NWLP provides potential for congestion relief at Paddington.

NWLP provides a means of extending existing International services.

NWLP is designed to take some of the strain in the event of substantial growth in rail travel and this is achieved without adding to the capital cost of the core facilities.

NWLP capitalises on the HS2 line by making HS2 accessible from a range of destinations, thereby contributing to congestion relief on the West Coast Main Line (WCML), Midlands Mainline and East Coast Main Line (ECML). HS2 is thereby integrated into the conventional rail network in the London area, and better than HS1 in this respect.

How would all this be achieved?

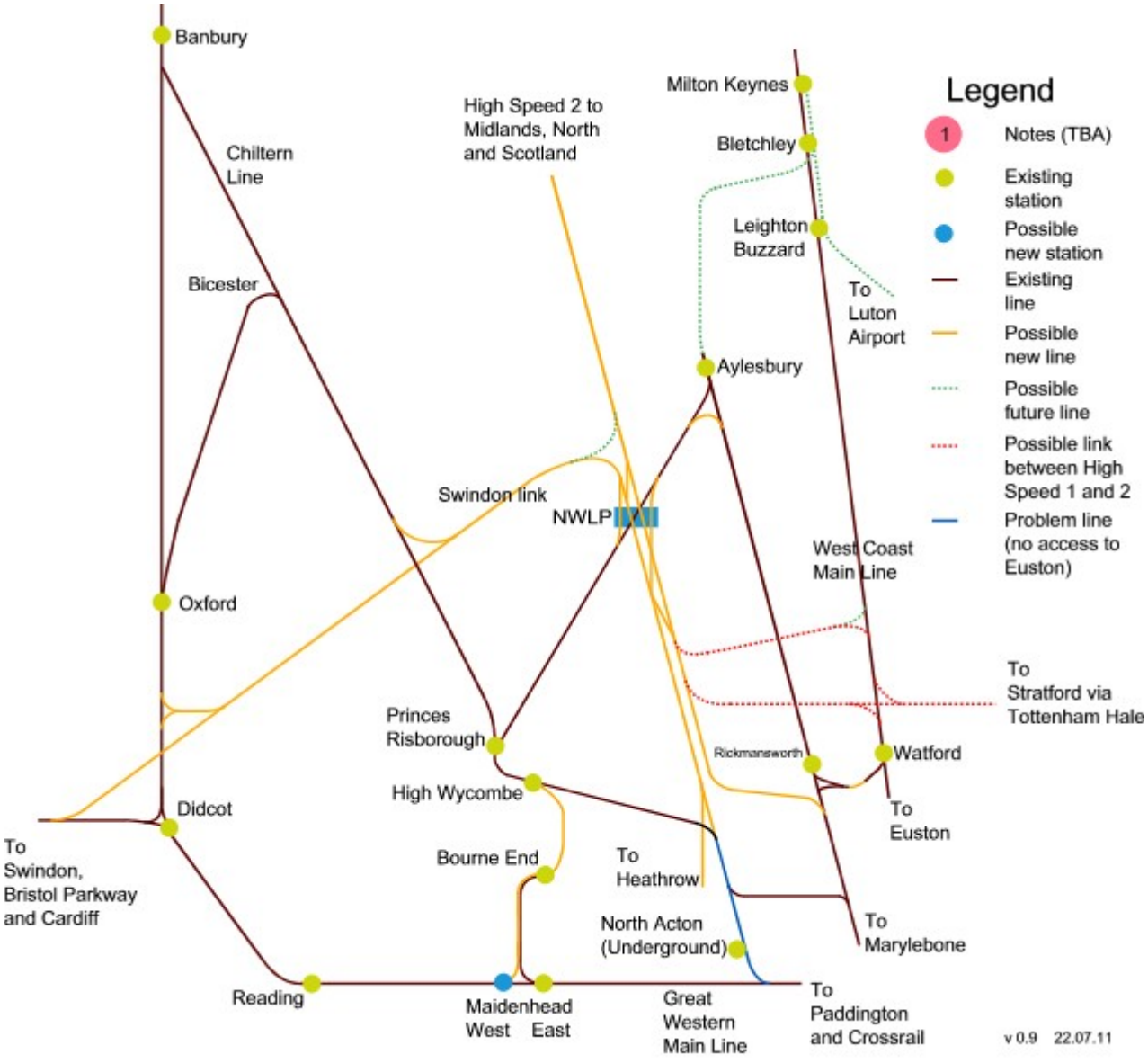
The location of the proposed North West London Parkway (NWLP) on the High Speed 2 (HS2) railway line is at the point that HS2 crosses the existing railway line from Princes Risborough to Aylesbury, maximising the potential of the conventional rail network in this area.

NWLP would be a parkway station on HS2, with link roads to the A41 for the M25 motorway and

to the A418 for the M40 motorway.

Locating NWLP at the point that HS2 crosses the existing railway line from Princes Risborough to Aylesbury and with some modest investment enables all of the above objectives to be achieved.

The following diagram illustrates the rail network in the vicinity of the proposed NWLP station.



Rail Planning Consulting North West London Parkway (NWLP) between Princes Risborough and Aylesbury

Some investments in the rail network are necessary, in addition to the HS2 line. The primary investment is the provision of a new express line linking to the line to Swindon and with connections from it to Reading, to Oxford and to the Chilterns line direct to Banbury. This express line is known as the Swindon link.

The current line from Princes Risborough to Aylesbury is single track. It would be re-engineered and replaced if necessary to become a dual track line i.e. permitting trains in either direction at the same time. There are two reasons why the current line might be replaced. Firstly as a result of the

precise location of NWLP, which is not known at this stage. Secondly due to the practicalities of upgrading the existing line to dual track. If replaced, there would hopefully be a service remaining on the existing line to intermediary stations.

NWLP needs use of the national rail line past North Acton Underground station to access Paddington and Crossrail. This line is currently envisaged in the current HS2 proposals as providing access to London Euston via a tunnel and this presents a problem. We are unable to specify a cost-effective means by which Wales can benefit from the HS2 line without resolution of this problem.

We would envisage the HS2 line as including a new line south of Rickmansworth connecting on to the line to Marylebone.

A connection enabling Aylesbury to be bypassed on the southern side of the town would enable services e.g. from Watford via a proposed Croxley Rail Link to Rickmansworth to run to NWLP without train reversal at Aylesbury (footnote 1). NWLP can operate with or without this Aylesbury bypass.

The line from Maidenhead to Bourne End, currently single track, would hopefully be upgraded to restore the former dual track working and would continue to High Wycombe, as indeed it did formerly. We would also envisage a connection on to the Great Western Main Line from Reading. Here, a new station Maidenhead West would be added, alternatively western platforms incorporated into a western extension of the existing Maidenhead station. NWLP could operate without these, however they are designed to cater for future possible substantial growth in rail travel (footnote 2).

It is an aspiration of Chilterns Railways to provide a railway line from Aylesbury to Milton Keynes. This would become useful as a means of providing a service from NWLP to Milton Keynes, optionally extended by train reversal to become a service to Luton Airport.

We will return later to the question of connections between HS2 and HS1, possibly via an east west rail link.

We hope to have shown that the investments needed in the rail network to provide the facilities of NWLP - not necessarily all of the above - are modest rather than substantial.

What rail services might we envisage at North West London Parkway?

In no particular order, we list here some possible services from NWLP.

Crossrail, providing access to Central London from NWLP, being a parkway station.

Underground services Jubilee and Metropolitan line running from NWLP as express services towards Marylebone, then connecting onto existing Underground lines (footnote 3).

Shuttle service to Heathrow from NWLP, being a parkway station. Also light rail with many stops within the Heathrow complex, not requiring full rail infrastructure.

Parkway for Birmingham, the North, Scotland via HS2.

Service to Gatwick Airport, possibly via Heathrow, possibly via Reading and Guildford.

Service to Stansted Airport/Cambridge, if an HS2 HS1 link via east west rail is implemented.

Service to Luton Airport.

Service to Southampton and Southampton Airport Parkway, possibly via Heathrow, Woking, Basingstoke, possibly via Reading West, Basingstoke.

Express service to Paddington - from South Wales or West Country. Services to South Wales, West Country.

Stopping service to Paddington via Didcot and Reading.

Light rail to Milton Keynes with multiple stops in Milton Keynes - probably as an extension of light rail to Heathrow - not requiring full rail infrastructure within Milton Keynes. This service facilitates employment opportunities for those living in Milton Keynes at NWLP, also at Heathrow. This service compensates for the fact that Milton Keynes is planned to expand without developments being within walking distance of the (one and only) railway station (footnote 4).

Chiltern Line diversion of services e.g. Banbury, NWLP, Princes Risborough.

Alternative service diversion e.g. Banbury, Oxford, NWLP, Princes Risborough.

Watford Junction to Heathrow - if there would be a business case for this; requires Croxley Rail Link.

Stopping service to London Waterloo via Didcot, Reading.

Stopping service to Marylebone via Rickmansworth.

Possible services to Medway Towns using an HS2 HS1 east west rail link.

Extensions of International services via an HS2 HS1 link.

Bus service (Aylesbury), Leighton Buzzard (WCML), Dunstable, Luton (Midlands Mainline), Stevenage (ECML), Bishops Stortford, Stansted Airport. Superseded by a rail service in case of an HS2 HS1 link via east west rail.

Bus service (Aylesbury), Dunstable, Luton, Luton Airport. Superseded by a rail service if a railway line is provided.

Motorail services including international.

Platforms at North West London Parkway

Platforms are envisaged as being on a north-south orientation. This risks causing the station to be cold in the event of a north wind. We have no solution to this.

Platforms are listed from west to east. Tracks would be aligned on approach to the station to allow for future growth in the number of platforms, both at the western and eastern ends.

Platforms 1 to 10. Reserved for future use, the space being used e.g. for car parking or as a service area.

To Milton Keynes by light rail.

To Heathrow by light rail.

To Heathrow (heavy rail), probably with limited stops at Heathrow.

To many destinations via conventional rail services, the list being potentially quite long.

To Swindon, Bristol Parkway, Cardiff, Swansea.

To West of England via Swindon.

To Paddington by express service.

To Crossrail excluding Paddington. Passengers would be encouraged to use the separately-provided service for Paddington. The aim of this is to reduce the number of passengers using Crossrail for Paddington.

To Aylesbury.

Although NWLP is designed to cater for expansion, the infrastructure for an International area is quite distinctive. Therefore we propose future possible expansion is built into the International area from the start.

Set down only (future service to South Wales) or not in use.

Set down only (future service to the North and/or Scotland) or not in use.

Two platforms : to Europe.

Two platforms reserved for future use.

We now return to platforms for domestic services.

Two pass-through platforms. Trains may run non-stop through NWLP but only at conventional rail speeds. There would be little purpose in providing a high speed by-pass of NWLP since trains using it would almost certainly be held up by other trains stopping at NWLP : NWLP would be a major gateway and most trains would stop at NWLP.
Freight, for example, would use the pass-through facility at no more than conventional rail speeds.

HS2 domestic services. Two platforms to Birmingham, the North, Scotland.

HS2 domestic services. Two platforms to London.

Underground services - Jubilee, Metropolitan lines.

To Medway Towns.

Space reserved for 10 additional platforms. We have assumed no connecting services to the WCML (other than by changing trains at Milton Keynes), Midlands Mainline nor ECML.

In our estimation, there could be 50 platforms at NWLP. To cater for expansion beyond 50 platforms, the station could be designed to cater for a second bank of 50 platforms e.g. to the north of the first bank. We are assuming a single-level structure, to reduce construction costs. However, with a second bank of platforms, we need to ask whether connecting services - notably Crossrail - would have the required capacity for expansion. If not, it might be more appropriate to plan a second London Parkway station e.g. to the East/North East of London. This would probably connect to Crossrail from the east. A second bank of platforms at NWLP does not provide an additional 50 platforms since each bank has to permit pass-through to the other bank. In this respect, expansion on the west or east is more efficient, each additional platform being useful in its own right. We will assume that NWLP is limited to a maximum of 50 platforms. It is possible that there would in fact never be more than 30 platforms.

High Speed 2 to High Speed 1

The current proposal to link HS2 to HS1 by a single-track line connecting on to the busy North London Line at Camden Road offers limited capacity. It is a weakness in the proposals. A link between HS2 and HS1 capable of offering fuller capacity would seem to be a priority.

In the short term, a connection between the national rail lines passing North Acton Underground station and Shepherds Bush would seem to have better prospects than a connection onto the North London Line. Formerly Eurostar trains used the nearby North Pole Depot when Waterloo International was in use. A connection to Shepherds Bush would seem to provide a more reasonable, although not fast, link between HS2 and HS1. In the longer term, the connection could remain useful for freight even after provision of an alternative.

An east west link from HS2 passing Tottenham Hale to Stratford would seem to offer substantial benefits. There is a connection from the Temple Mills Depot onto HS1, now used by Eurostar in place of the North Pole Depot. This would enable services from HS2 to St Pancras with no modification to the HS1 line. St Pancras would thereby be a station stop on the line between HS2 and HS1.

In the longer term, it is possible that a line, largely in tunnel, could be constructed from Marylebone to Waterloo to make use of the former international platforms at Waterloo. This line could continue from Waterloo to Stratford. In such a case, we have the potential for circular services from NWLP to Marylebone (with or without a station stop at Marylebone), Waterloo, Stratford (passenger interchange for HS1), then via an east west link line back to NWLP. This would complement Euston by providing additional capacity. It would be of use for long distance domestic services on HS2 without requiring the use of the facilities of a terminus in London.

Another possibility for an HS2 HS1 link might be to extend the existing HS1 line from St Pancras to connect to the line approaching Marylebone. Thus a train on the line to Marylebone would have direct access to the HS1 line. However, if a circular route as outlined above were subsequently to be considered, capacity considerations on the line to Marylebone would seem to suggest the usefulness of an extension of the HS1 line from St Pancras would be limited.

In the short term, we would like to suggest consideration of a connection between the national rail lines passing North Acton Underground station and Shepherds Bush.

Crossrail

Currently Crossrail is planned as an inner suburban service. Whilst accepting that Crossrail provides an all-stations-stop service at Central London locations, there are many commentators who would suggest transforming Crossrail by making it useful for regional services. Whilst Crossrail is similar to the RER lines in Paris which, we understand, provide only an inner suburban service, we would suggest that an opportunity was missed in this respect in France, an example that we have no need to follow in the UK.

There are signs that the idea of transforming Crossrail to enable useful regional services are being accepted, with Network Rail proposing a connection onto the WCML.

We would like to take this idea further to suggest a Crossrail service to Birmingham via HS2. This would reduce the journey time from Birmingham to Crossrail central London stations far more than by saving a few minutes by means of speed of travel on HS2 or selection of proposed route for the HS2 line, no interchange being necessary. It would also be considerably more convenient for passengers.

Taking this idea further still, we would like to suggest Crossrail to Birmingham as the primary focus of the Phase I development of HS2. On the assumption that NWLP is incorporated into the design of HS2, as we would hope, it would be reasonable to assume that an express link to Swindon would not be part of the early phases of development. Hence there would be a significant proportion of passengers wishing to use Paddington as an interchange. To cater for this and to reduce potential congestion at the Crossrail platforms at Paddington, we suggest there would also be a classic-compatible service from Birmingham to existing platforms at Paddington. This would presumably be a temporary measure prior to provision of a fuller set of facilities at NWLP, including connections to South Wales, the West Country and Heathrow.

We envisage rather more Crossrail services to NWLP than would continue to Birmingham.

There is a problem with the current plans to link HS2 to Euston by making use of the national rail lines passing North Acton Underground station. We envisage, as part of the design of NWLP, these lines being filled potentially to capacity with Crossrail services together with services to Paddington including from South Wales and the West Country. We very much hope instead that a link from HS2 to Euston could make use of the lines to Marylebone. The hope that this matter can be reviewed is a reason for suggesting Crossrail to Birmingham as the primary focus of the Phase I development of HS2 : a change of plans for access to Euston would then not hold up plans for Phase I development of HS2.

Euston

We very much hope that access to Euston from HS2 will be via the lines to Marylebone, as explained above. We also hope, for the purposes of flexibility, that the new platforms provided for HS2 trains at Euston will be accessible from conventional rail lines i.e. from the West Coast Main Line (WCML).

HS2 has as a design aim to reduce congestion on the WCML, yet it demands redevelopment of Euston station prior to coming into operation. There is an irony here : once HS2 is in operation, there is the potential possibility of reducing conventional rail services into Euston for a period of time (i.e. prior to future growth in rail travel) which would of itself facilitate the redevelopment of

the station. We would like to suggest a re-ordering of work in the phases of HS2 development to capitalise on this, hence our suggestion of focussing phase I development of HS2 primarily on a Crossrail service to Birmingham. Overall services on the rail network could hopefully then be designed in co-operation with the redevelopment of Euston station as a Phase II project such as to render the redevelopment less disruptive.

Old Oak Common

The proposal for a North West London Parkway station makes redundant the proposed station at Old Oak Common.

Route of HS2 line

The case for the proposed route of the HS2 line in the area north of London is strengthened by its suitability for the proposed North West London Parkway station.

Footnotes

Footnote 1

Potentially this reduces the number of services available at Aylesbury however we do not envisage Aylesbury as in any way lacking in train services as a result of these proposals.

Footnote 2

Services from the West Country and from South Wales via Swindon currently run via Reading to Paddington. The new route via NWLP to Paddington would be used by selected services, others remaining on the route via Reading. In the event of future possible substantial growth in rail travel, at least some trains from the West Country via Swindon would run to Reading and/or Maidenhead West, to NWLP and then return home without running to Central London at all. This would relieve congestion at Paddington. It might be thought that services could run to NWLP and reverse there and this is indeed a possibility. However, this would require additional platforms at NWLP since train reversal does not occur quickly. In addition, there is the possibility in the event of substantial growth in rail travel of NWLP itself becoming crowded, in which case Reading/Maidenhead West offers a better prospect to passengers from the West Country of connection particularly to Crossrail than would NWLP and this could contribute to any necessary congestion relief proved necessary at NWLP, perhaps even, in the worst case, with services from the West Country passing through NWLP without stopping, should that prove to be the best way to resolve future hypothetical congestion issues. Concerning Heathrow, BAA Airtrack includes a stopping service from Heathrow to Reading via Staines. Hopefully this could be extended past Didcot to NWLP and Heathrow, to become a circular service. There is, however, a further possibility. Crossrail is planned to provide an all-stations service to Maidenhead East i.e. Maidenhead as it now is. Perhaps it would be worthwhile considering an extension to this service to Maidenhead West, Reading, (Didcot), NWLP, Heathrow thereby providing a second Crossrail service to Heathrow.

With its large centres of population, we assume South Wales would remain a priority in terms of economic development and indeed this is the reason for proposing an express service route via Swindon to NWLP and Paddington with an interchange to the HS2 network and the potential for

international services. Therefore we would expect services from South Wales to continue running via NWLP to Paddington, even in the case of substantial growth in rail travel. It is only services from the West Country for which we are proposing possible train reversal at NWLP or a circular route via Maidenhead West. Hopefully this situation would prove to be no more than hypothetical : we have at least attempted to plan for it.

Footnote 3

These Underground services may require new rolling stock capable of achieving higher speeds prior to joining existing Underground lines.

Footnote 4

We note that the existing railway network in the area around NWLP is substantial. Despite this, developments planned in response to population growth are not rail-centric, with extensive developments and the use of people movers prior to even arriving at Milton Keynes railway station. Does such policy have the effect of failing to diminish the subsidies required for the railways? Much railway infrastructure is fixed cost and would cost less per passenger mile travelled if better utilised.

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