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Freight RUS Consultation Response
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Dear Sir

Network Rail Freight Route Utilisation Strategy Consultation

We would like to thank Network Rail for inviting Central Railway ('the Company') to participate in this round of consultation on its Freight Route Utilisation Strategy (the 'Freight RUS'). The Freight RUS Draft Document (the 'RUS Document') describes the issues surrounding the provision of sufficient capacity to accommodate the projected growth of rail freight activity in the United Kingdom over the next ten years, given in particular the expected increase in passenger traffic at the same time.

It is anticipated that there will be approximately a 30% growth in UK rail freight in terms of tonnes lifted. Particular areas of growth are expected to include UK-Continent Freight, increasing from a little over 1m tonnes currently to around 7m tonnes, Electricity Supply Industry (ESI) coal traffic which is expected to increase by perhaps 15% to over 50m tonnes, and deep sea (i.e. travelling to and from other continents on container ships) container traffic between mainly southern UK ports and the Midlands and northern Britain which could grow by perhaps 80% or more to around 20m tonnes.

UK main lines facing a potential capacity crunch

On page 34 of the Document the number of extra freight trains per day generated by the RUS group's Base CASE forecasts plus three scenarios - essentially more coal traffic than expected, and W10 clearance generating more maritime container traffic - is shown on key routes. The lines taking the strain, with roughly 0.5 to 1 more trains each way per hour, are the East Coast and West Coast Main Lines and the North London Line and the Settle and Carlisle railway.

For the first three routes mentioned, the Company's proposed development of a through freight railway system ('the Project') would create an alternative diversionary route. And for the last, the Settle & Carlisle line, the Project would create more capacity on the line itself. So the Project could soak up the predicted increase in freight traffic on the main lines and perhaps even reduce current levels.

Loading gauge aspirations

The question about how to provide capacity for freight involves questions not just of track capacity, but also of structure gauge, which are discussed on Pages 54 to P61 of the RUS Document, and of train lengths. In Europe generally there has been little investment in upgrading railway systems for the needs of modern rail freight operation, which boil down to higher loading gauges and longer trains. The emphasis has been on investment in passenger routes. In contrast main lines in America have been upgraded to higher loading gauges and so can now carry lorries - in practice lorry trailers - and double stack containers. In part as a result, North American rail freight is much healthier than is the case in Europe.

On page 94 of the Document there is an illustrative diagram of current UK loading gauges and a Continental loading gauge described as UIC.GB+. Loading gauges are essentially the maximum cross sectional sizes of trains able to use a particular route without risking hitting overhead structures. W10 is required to enable a single 9'6" (2.91m) high container to be carried on a flat wagon. The 9'6" container size accounts for a third of containers entering the UK but is expected to displace the current 8'6" high standard container to account for around two thirds of the market in ten years time. On page 59 aspirations for an extensive network of routes cleared to W12 (essentially W10 but slightly wider for refrigerated containers up to 2.6m wide at the top) are shown.

On page 61 a possible UIC.GB+ WCML upgrade linking in to the CTRL (HS1) via the North London Line is shown. This would at last permit at least French conventional (UIC.B+) size freight trains to run some way into Britain, subject to serious capacity and other constraints on the CTRL, NLL and the WCML.

However it should be noted that even the highest UIC.C loading gauge standards do not permit normal North American products such as the carriage of lorry trailers, except, sometimes, in well wagons which make handling standard trailers problematic and expensive. There is clearly a risk that money may be spent on successive minor loading gauge enhancements to the same structures when it might be more cost effective to go straight to a higher structure gauge. The Company's proposals to upgrade rail routes on both sides of the Channel to a much higher structure gauge than any so far envisaged are described below.

Passenger Rail Utilisation Strategy consultation

Network Rail has issued passenger Route Utilisation Strategy consultation documents. Successful implementation of Central Railway's revised proposals would not only create new capacity for freight but also free up capacity on existing main lines for more passenger trains by acting as a permanent diversionary route for the ECML and WCML systems. It would also create some regional passenger opportunities along the London (Marylebone)-Buckinghamshire-Midlands and Hull-Sheffield-Manchester-

Liverpool corridors and facilitate the development of faster passenger services on the Chiltern Lines system.

What is the Project - routes, loading gauge and signalling?

The Project is a proposal to link up and upgrade existing railways in the UK and on the Continent which currently have relatively low usage to create a new strategic rail freight system. For example, the existing lines which would be incorporated in the route in London and in Kent are understood not to have more than four passenger trains each way per hour at peak hours.

Such relatively underused railways therefore currently represent 'isolated' pools of potential capacity, which the Project would link together with connecting works such as new tunnels or viaducts, short sections of new railway or the restoration of dismantled lines or the addition of tracks. Tracks would generally be added on rail corridors where expansion to four tracks had originally been envisaged and provided for, or indeed where four tracks were once installed but subsequently removed.

The Project's revised route

The Company has begun work evaluating routes on existing railways running from near Paris and Köln, the latter via the Iron Rhine project and Antwerp, to the Channel Tunnel.

In the UK the route would also largely comprise existing lines from the Channel Tunnel to a point west of Princes Risborough where it would run along a reinstated former mainline towards Leicester. From Leicester, where new track capacity to relieve a known bottleneck is proposed, it would run onto existing railways running towards Sheffield and, via additional sections of reinstated main line, to Manchester and Liverpool. At Liverpool RoRo (i.e. Roll-on Roll-off) lorry ferries and/or an eventual train ferry system would carry Irish lorries and containers. It is also proposed to evaluate a route comprising existing railways running from Glasgow on the Dumfries and Carlisle and Settle railways linking into the Project's proposed route in northern England.

The route would be operated by diesel traction, which would necessitate the attachment of electric locomotives for the transit through the Channel Tunnel but should otherwise simplify and reduce the cost of the Project. Signalling would be upgraded in places as needed to accommodate more trains, and of greater length.

A key component of the Project would be the provision of a small number of new road rail transfer sites - perhaps five in the UK and three on the Continent - located at key motorway junctions.

The Project's loading gauge

We refer to the attached illustrative loading gauge diagram which shows the W12 and UIC.C loading gauges - the first, in yellow, is the largest UK aspiration and the latter, in blue, is the largest current continental European loading gauge. It also shows a structure gauge sufficient to carry a 4.6m high lorry trailer on a flat wagon, with extra width at the top to allow for the likelihood that trailers may be loaded slightly off-centre. The same loading gauge would suffice to carry two 2.6m wide 8'6" high double stack containers - still the most common container height - in a well wagon. This loading gauge is compatible with the Channel Tunnel and would be the minimum likely to be proposed by the Company.

We also show the loading gauge needed for two 9'6" high containers in a well wagon, the clearance envisaged by the EU's New Opera working group. Whilst such a loading gauge would not be compatible with that of the Channel Tunnel because of its current track and catenary configuration, the possibility that a different and compatible configuration could be introduced during Eurotunnel's periodic renewals programmes within its 7.6m diameter tunnels will be investigated. In any case if the Project were to form part of a long term solution to the issue of accommodating UK ports' deep sea container rail traffic it would still make sense to propose a loading gauge high enough to allow trains to carry two 9'6" containers per wagon.

Double stack container operation as practised in North America results in 60% more containers being carried on the same length of train, Direct costs - i.e. fuel, maintenance, operations etc - savings of 20% or more per container are believed by the Company to be achievable compared to current UK and continental 'single stack' container operation.

The Project's lorries on trains service - economics and environment

The key point about the loading gauge in the context of the Project's target UK-continent road freight market, however, is that a high enough loading gauge opens up a vast new market for rail freight. And the success of Eurotunnel's lorry shuttle product already suggests that it is a market which can be captured by rail.

There are currently around 5.7m lorry movements between the UK and the Continent annually. MDS Transmodal in a report for the Department for Transport forecasts a UK-Continent market of approximately 8m units by 2015 and 12m in 2030. In comparison, total UK ports container traffic was equivalent to nearly 4 million lorry movements in 2004 though these flows are growing faster. (The 7.7m TEUs - 'Twenty-foot Equivalent Units' - of UK ports' container traffic shown on page 20 of the RUS Document has to be halved to get lorry equivalents.)

But very few of these lorries can use the railways unless and until a higher loading gauge is provided on both sides of the Channel. And yet this is the biggest flow of freight units in Britain's trade system. On the basis of the Company's earlier market

work, which it proposes to update again in next year, the Project as currently conceived could capture 40% to 60% or more of UK Continent lorry traffic. In 2002 the Strategic Rail Authority concluded that the Company's earlier and shorter proposals could capture nearly 40% of the market. Assuming prices designed to compete with the lower continental lorry operating costs, railway industry revenues could amount to around £1.5 billion annually.

Somewhere between 3 million and 4.5 million lorries (actually unaccompanied lorry trailers as this mode offers greater cost savings) could be carried annually by the railways from around the middle of the next decade if the Project were successfully implemented. These are big numbers but they are simply a reflection of the size of the underlying market which the Company's proposed loading gauge improvement could draw into the railways' ambit.

The UK railways currently carry just over 20 billion net tonne km of freight. This is around 12% of all UK surface (i.e. HGV and railway) freight activity which amounts to around 170bn net tonne km annually. The Project could divert another 20 to 30 billion net tonne km from road to rail - though admittedly a significant share of it would be diverted from roads on the Continent. With the other growth in rail freight predicted in the RUS Document, implementation of the Project could nevertheless take Rail's share of UK net tonne km to above 20%.

The Project could take well over 10,000 lorries a day off the roads and would make a significant contribution towards reining in carbon dioxide and other emissions from road traffic, which is a sector where they have been increasing rapidly.

How could the Project help Network Rail meet freight capacity needs?

The Project expects to create new rail traffic equivalent to five to seven times Network Rail's current 2015 tonnage forecast for through Channel Tunnel rail freight. Such an increase in freight on Network Rail's system would not at first sight seem to help Network Rail with its own capacity problems, yet such should be the case because the project could create more capacity than it needs for its traffic.

Additional capacity created for freight traffic

The Project would create a new spinal through freight route through the UK and in particular the Southeast, which could relieve the WCML, ECML and North London Lines by acting as a freight diversionary route.

The Project creates more capacity than it needs to carry its own projected traffic. The Project's core traffic would need perhaps 4 to 6 lorries-on-trains paths each way per hour (many fewer at night) on the busiest section of the Project's route, that between the Channel Tunnel and London. Lorries on trains services would be rather fewer further north - for example perhaps 2 trains per hour each way in northern England, and fewer still on the lines to Liverpool and Scotland.

At peak periods passenger and the Project's lorries on trains services combined could generate a maximum of up to 10 trains per hour on, for example, the key 12 mile section of the Gospel Oak to Barking line in London (assuming current TfL aspirations for four passenger trains each way per hour are realised). With resignalling, and if necessary an element of four tracking, the company believes that the Project could potentially make available another 2 to 5 train paths at peak hours and on the busiest sections of the route. Clearly rather more paths could be available outside of peak hours. Elsewhere in Kent and on existing lines in the Midlands and North combined peak passenger and lorries-on-trains traffic will be generally lower.

In the middle section of the Project's UK route between Leicester and Gospel Oak in London the reopening of a former main line and the virtual doubling of track capacity on the Princes Risborough - Wembley line would create many new freight, and indeed potential passenger, paths per hour. On this section the Project might need perhaps 3 to 4.5 trains each way per hour for its international lorries-on-trains traffic, thus leaving abundant spare capacity.

Access from the rest of the UK rail network

The provision of extra capacity along a spinal route in the UK running between and basically parallel to the ECML and the WCML is only useful if the route links into the rest of the UK railway system. The revised project does so. It is essentially part of the existing network and so automatically is already linked in to lines connecting with key main lines. The Company believes that there are few significant freight routes or terminals on the UK railway system which could not link into the capacity provided by the Project.

Part of a solution for UK ports' deep sea container traffic

A lot of the envisaged increase in traffic on the WCML in particular stems from a projected rapid increase in deep sea container traffic coming up from Southampton, Felixstowe and the Thames estuary. On the Thames the new Shell Haven container development is not far from the Tilbury - Barking line which is proposed to be improved as part of the Project. Clearly trains from all three port areas could link into the Project's route near Calvert in Buckinghamshire, at Leicester and to the Barking line, respectively, and could then continue northwards without interacting with either of the principal northern passenger main lines.

In the case of Shell Haven, and indeed the Isle of Grain, the Project's route is so close that connecting lines could perhaps be upgraded for longer train lengths and even double stack container operation, both of which would greatly reduce the number of new train paths needed to carry projected container traffic, for example on the North London Line.

Freight train lengths and national network capacity demands

The ability of the Project both to carry a very heavy volume of new rail freight business and to offer spare capacity to relieve Network Rail capacity shortages elsewhere stems from the Company's decision to propose to operate longer trains in order to reduce costs and optimise the use of capacity.

This raises the issue of the degree to which capacity constraints on Network Rail's system generally could be alleviated by trying to combine currently relatively short trains in order to run fewer longer trains which would use fewer paths. In the RUS document 48 TEUs is given as typical container train length, i.e. equivalent to twenty-four 40' long containers. This size of train, which is less than ideal in economic terms, means many more paths are needed for a given increase in traffic.

The company recognises that there are constraints caused by the layout of port sidings but the Project's planned specifications do offer the scope for three times as many containers to be carried per train, if trains can be consolidated into longer sets when they leave the ports and if connecting lines to it were also resignalled for longer trains (and five times as many containers could be carried on one train if it were also double stack, say from Shell Haven to terminals along the Project in the North).

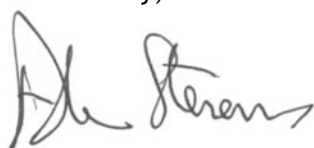
Deliverability, feasibility work and implementation timescale

The Company has gone back to the drawing board to come back with a potentially better, cheaper and certainly more integrated version of its proposals. Additional engineering, costing and marketing work needs to be carried out on the Project over the next year. Network Rail is in discussions with the Company about the Project and the program of work by the Company needed to progress it to the next stage.

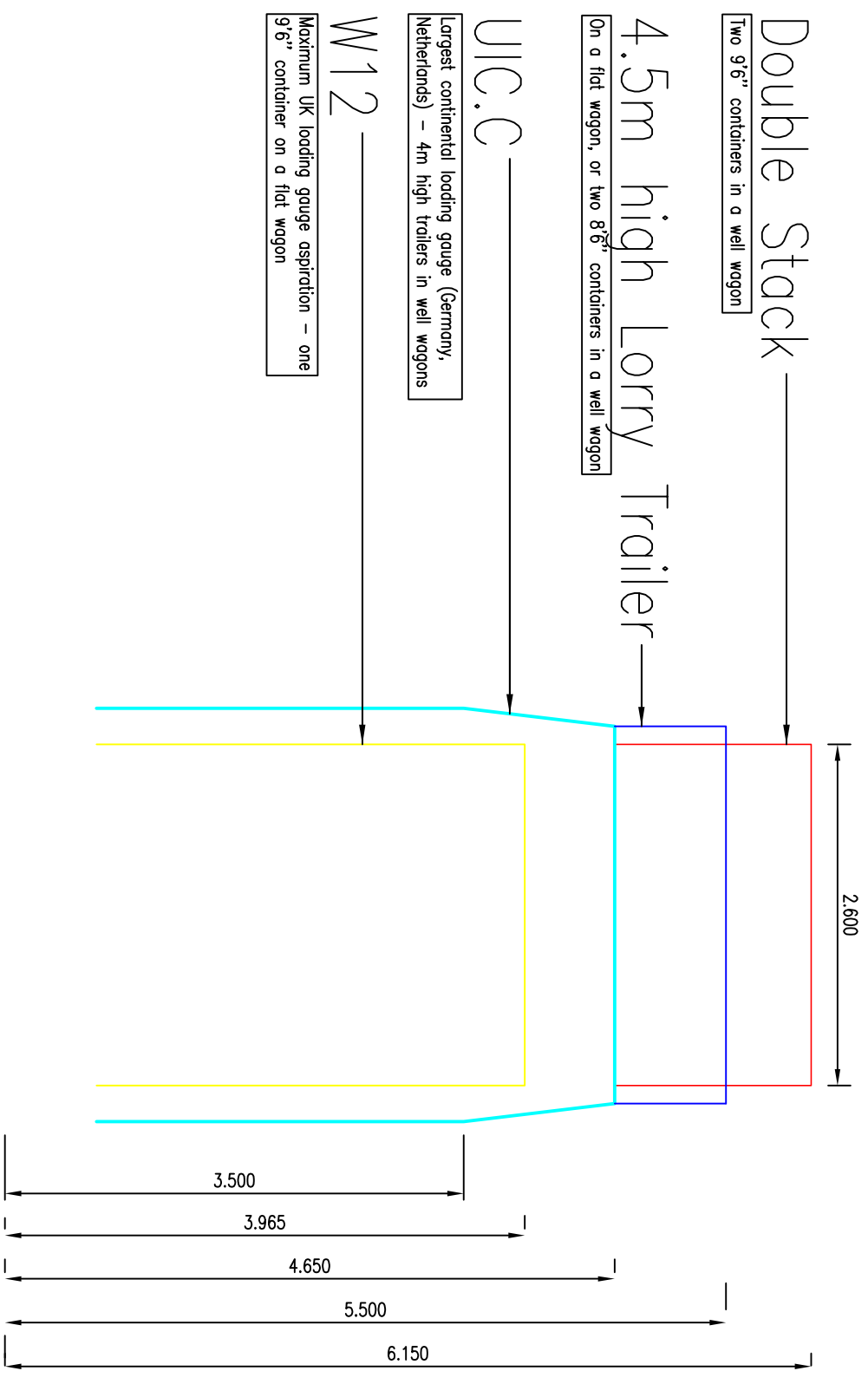
Key participants in the financial markets wrote to the UK Government in 2003 in support of the financability of our earlier project's construction financing case. Providing therefore that forthcoming work confirms the project's viability, it should be capable of being funded in the capital markets.

Assuming that the project takes three or four years to get through approval procedures and has a four year construction period, it could be implemented and be coming on stream towards the end of the RUS planning period and just in time to relieve what could by then be serious bottlenecks on existing main lines.

Yours sincerely,



ALAN STEVENS, Chief Executive



Double Stack ———
 [Two 9'6" containers in a well wagon]

4.5m high Lorry Trailer ———
 [On a flat wagon, or two 8'6" containers in a well wagon]

UIC.C ———
 [Largest continental loading gauge (Germany, Netherlands) – 4m high trailers in well wagons]

W12 ———
 [Maximum UK loading gauge aspiration – one 9'6" container on a flat wagon]

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 25/10/06
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 ISSUE EXCEPT FOR DISCUSSION OR
 REFERENCE PURPOSES

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