



# **Cross London Route Utilisation Strategy – consultation by Network Rail**

## **A response by London TravelWatch and Passenger Focus** (assisted by The Railway Consultancy)

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### **Executive Summary**

- A. London TravelWatch and Passenger Focus welcome many of the proposals put forward by Network Rail for the development of the orbital network of lines covered by its draft “Cross London Route Utilisation Strategy”. We believe that growth in passenger usage of the lines concerned will be significant during the period covered by this RUS, and we note that port developments in the Thames estuary will bring increased demand for freight traffic too. Substantial increases in capacity will undoubtedly be necessary if this demand is not to be unnecessarily suppressed.
- B. However, we consider there to be a number of serious omissions in this RUS, particularly in respect of proposals for future electrification and the provision of freight capacity on alternative routes to release capacity for passenger use.
- C. We welcome proposals for both increased train lengths, where practicable, and frequency increases to a minimum of 4 trains per hour on all metro services.
- D. We support the principle of through running between the various lines in view of the improved journey opportunities and operating benefits that this offers. However, we would not favour the extension of diesel working over electrified lines, and would therefore regard electrification of the Gospel Oak – Barking line as essential. Elimination of an isolated pocket of diesel traction would in itself produce operating economies, and the benefits of a common fleet of trains throughout this network of lines.
- E. We are pleased to note that this RUS does not propose termination of the existing hourly Watford – Gatwick/Brighton service at Clapham Junction, and instead seeks to retain this important cross-Clapham Junction link. We are currently awaiting the results of further survey work on this service, and will welcome further discussion with Network Rail and Southern regarding its development.
- F. We support the proposal to divert South London Line trains from London Bridge to Clapham Junction so as to release valuable capacity at Victoria, and to provide convenient cross-platform interchange with West London Line trains, subject to the proviso that other services are recast such that no station is left with a worse service than at present.
- G. Perhaps the most important omission from this RUS is any proposal to facilitate the diversion of freight traffic having no business in London on to other routes. This relates primarily to the gauge-clearance of the Felixstowe – Nuneaton route to W10 gauge. While this may technically be beyond the scope of this RUS, it is important that it be considered alongside other proposals, as this may well be the most cost-effective means of creating capacity for more passenger trains on the London orbital routes.

# Response to the draft Route Utilisation Strategy

## Introduction

1. This paper is issued by London TravelWatch and Passenger Focus in response to Network Rail's draft Cross-London<sup>1</sup> Route Utilisation Strategy (RUS). References to "we" refer to the views of both London TravelWatch and Passenger Focus.
2. We welcome Network Rail's approach to this RUS, in seeking to find ways of implementing TfL's aspirations for growth on this network of orbital lines, enabling it to maximise its contribution to meeting the public transport needs of the capital.
3. Our specific interest relates to the users of metro and cross-regional services on these lines making orbital journeys within the London area and/or longer distance journeys avoiding central London.
4. We believe that growth in passenger usage of the lines concerned will be significant during the period covered by this RUS, partly because of demographic changes leading to an intensification of land-use in Inner London, but also because at present much of the service suffers from poor "visibility" and hence awareness among potential users is low.
5. We would emphasise the wider strategic benefits to the capital of facing these problems and finding solutions. Current orbital transport in London is wholly inadequate: the M25 is notoriously congested, the North Circular Road is only 'good in parts' and the South Circular Road is no more than a label given to a collection of suburban streets. Orbital bus routes tend to be short, and are getting shorter due to reliability problems, and the few rail facilities are meagre and overcrowded. On the other hand because of the growth of the suburbs for employment, retailing and housing, orbital travel demand is increasing. The very diverse nature of suburban travel patterns means that this situation will only get worse.
6. Provision of capacity for orbital trips has the potential to relieve congestion on radial routes by diversion of trips not destined for central London but for which currently there is no adequate alternative to travelling via central London. Since many radial routes are also operating at or close to capacity, and are themselves subjects of other RUS's, this is a very real benefit.
7. In addition, there is the prospect of development of the ports at Felixstowe, Harwich and Shellhaven, which will increase the demand for freight traffic, both rail and road. It is essential that much of this demand is catered for by rail in order to limit further road congestion and adverse environmental consequences. Clearly, routing additional rail freight traffic via London will exacerbate the capacity problems already facing the lines being considered by this RUS, and we conclude that from a passenger perspective, the development of alternative routes to enable freight trains to avoid London is urgent.
8. This response begins by highlighting a number of general issues which we believe the RUS should take account of, and go on to detail our general aspirations for metro services. We then consider in some detail each of the options presented in the draft RUS, and conclude with a section on additional proposals (not included in the draft RUS) which we believe have merit.

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<sup>1</sup> We prefer the term London Orbital to Cross-London, as the former more accurately describes the subject matter of the RUS. Most readers of a paper entitled "Cross-London" would think in terms of Thameslink or Crossrail rather than lines such as the North London. We would strongly recommend that Network Rail re-name the RUS London Orbital Route Utilisation Strategy to avoid this confusion.

## **General Comments**

### Demand Data

9. We note that many rail industry demand estimates are based on LENNON ticket sales data (albeit with some correction for Travelcard omissions) and would caution that biasing is likely to exist within this data, and that additional survey data be collected and/or used where appropriate. This is particularly pertinent on the Gospel Oak – Barking line, on which most stations are unstaffed, have no ticket machines, and on-train fare collection is not consistently undertaken, leading to considerable under-reporting of usage. It is also relevant to proposals for the Watford – Gatwick service, where previous surveys have reported levels of ridership well above those quoted by the former Strategic Rail Authority (SRA) in its draft Brighton Main Line RUS. A further survey is currently being undertaken on this service, and we expect to be able to report its findings very soon to help inform decisions on this RUS.

### Electrification

10. The RUS seeks to formulate a strategy for the optimal use of the lines under consideration. We believe that this will only be achieved by the maximum availability of alternative routings on this network, and therefore that there is a strong case for the electrification of the remaining unelectrified lines and junctions<sup>2</sup>. We note with some concern that the draft RUS makes no mention of electrification of lines currently not so equipped.

### Passenger use of unused freight/ECS capacity

11. On the West London Line, capacity is at present constrained by the agreement on Channel Tunnel Freight reached with English Welsh and Scottish Railway (EWS) that commits Network Rail to selling the rights to a large number of paths to EWS for Channel Tunnel freight on the West London Line (WLL). EWS has never taken up all the paths that these rights confer, and there is no prospect of this happening within the next 20 years. Meanwhile, passenger demand on the orbital routes continues to grow, with little prospect of relief from increased frequency of service, because of the capacity consumed by these theoretical freight trains. Our view is that this is not efficient use of scarce capacity, and that a mechanism must be found by which Network Rail be allowed to resell these 'ghost' paths to other (passenger) operators. This issue is also relevant to other lines such as Factory Junction to the Channel Tunnel and on the West Coast Main Line (WCML), not just the West London Line.
12. Similarly, Eurostar access rights should be reassigned to local passenger services, when the Eurostar services move to St Pancras in 2007, and these trains are maintained at Temple Mills instead of North Pole.

### The Passenger Benefits of Investment in Freight Capacity

13. A great deal of the freight traffic currently using the North London Line is through traffic between the port of Felixstowe and the Midlands and North of England via the Great Eastern Main Line and WCML. Thus much of the available capacity on a line which serves a densely populated area of London is being consumed by freight traffic having no business in London, and which could be routed via less congested lines elsewhere in the country, were it not for gauge clearance restrictions. We believe that upgrading of the Felixstowe to Nuneaton cross-country route to W10 gauge would have substantial benefits for London's passengers (as well as for the rail network in general) and should be urgently progressed.

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<sup>2</sup> Gospel Oak – Barking, the Dudding Hill line and South Acton – Kew Bridge

### **London TravelWatch's general aspirations for metro services**

14. Since the late 1990s London TravelWatch (formerly London Transport Users' Committee (LTUC)) has had clear views on how metro services should be developed. These are included in our paper "Requirements for Train Services – Principles"<sup>3</sup>. In summary the requirement is for:
  - Turn-up-and-go frequency – defined as a minimum of 6 trains per hour all day and every day.
  - First and last train times to be 0530 – 0100 Mondays to Saturdays, 0700 – 0100 Sundays<sup>4</sup>.
15. When discussing these aspirations with the industry, we have always emphasised that they are long term, that we recognise that many difficulties need to be overcome for them to be achievable, and that in some (but by no means all) cases some investment in increased line capacity would be needed.
16. We have therefore adopted a pragmatic approach for the shorter term, generally focussing on lifting existing services levels to a minimum of 4 trains per hour Mondays – Saturdays and progressively extending first and last train times towards our objectives. We have particularly recognised the historical legacy of the industry's infrastructure maintenance practices which have inhibited the development of high frequency services on Sundays.
17. However as the Cross-London RUS is looking ahead to 2016 – a time span which we strongly welcome and which (major projects apart) has been sadly lacking in much of the industry's recent planning – we consider that in this case our long-term aspirations are the appropriate ones to pursue.

### **General issues regarding line capacity**

18. The preferred arrangement for the operation of high-frequency metro services is that – as with London Underground (LUL) and the Docklands Light Railway (DLR) – they should have exclusive use of the tracks, and that quadruple tracks should be provided wherever necessary to achieve this and that wherever possible junctions should be grade separated.
19. However for the routes being considered in the Cross-London RUS we recognise that to some degree they must all cater for freight trains, and that on both cost and environmental grounds<sup>5</sup> extensive quadrupling and grade separation of junctions will not be practically possible.
20. Nevertheless we believe – based on a combination of empirical observation, an understanding of the basic elements of railway operation, and recollection of what has been achieved in the past – that 6 or more trains per hour electric metro services can share tracks with freight trains providing the signalling sections are appropriately configured and that adequate recess facilities are provided for freight at the various junctions where they join and leave the metro lines.
21. A second general issue relates to the nature of orbital services. On radial routes the major passenger flows are to and from central London. By and large this is conducive to simple

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<sup>3</sup> Available on the London TravelWatch website at [http://www.ltw.org.uk/view\\_document.php?id=789&category\\_id=166](http://www.ltw.org.uk/view_document.php?id=789&category_id=166)

<sup>4</sup> This approximately matches the present operating span of London Underground (LUL) - except that we consider that last train times on Sundays should be the same as on Mondays – Saturdays.

<sup>5</sup> Because the lines are mostly located in densely built-up residential areas.

service patterns, as most journeys can be made by direct train. This in turn makes it relatively easy to provide high frequency services<sup>6</sup>.

22. On orbital routes the pattern of demand is much more diffuse, with total passenger flows built up from a myriad of individual origins and destinations. The actual demand is strongly influenced by the availability of the service. Looking back 30 years or so there was a defensible case to be made that London orbital services were moribund, with the North, East and South London lines and Barking – Kentish Town line (as it then was) all lightly used and the West London line having virtually no service.
23. Since then their use has been transformed, with a virtuous circle emerging of new services and stations, increased frequencies and increasing traffic. The diversion of the North London line away from Broad St. and instead serving new stations through Hackney to Stratford has been the outstanding success.
24. The only orbital line which has been noticeably weak has been the Stratford – North Woolwich section, where closure of the docks decimated its traffic base, and low frequencies coupled more recently with the advent of much better DLR and Jubilee line services in the area have substantially eroded what potential traffic remained<sup>7</sup>.
25. The recent success of the existing orbital network – particularly the re-opened sections and the new stations – has spawned proposals from various groups and individuals for existing services to be linked together (e.g. Barking – Gospel Oak – West London Line) or for new links to be created (e.g. Sidcup – Clapham Junction or Enfield Town – Stratford).
26. Many such ideas might have merit when viewed in isolation, but there are few which in reality could stand alone. The vast majority would compete for capacity with existing or other proposed services – passenger and freight and both orbital and radial.
27. It is therefore important that in creating the RUS, Network Rail develop some sensible criteria for evaluating proposals for new services. In our view these criteria should include the following key points.
  - For metro services<sup>8</sup>, turn up and go frequency is vital. 6 trains per hour is preferred. 4 trains per hour is the long term minimum for a service to be attractive. A lower frequency could be acceptable as an initial pilot, but would only be worthwhile if there is a physically and financially realistic prospect of capacity becoming available for it to be increased to at least 4 trains per hour.
  - The service should be self-contained in terms of crew and rolling stock rosters, to minimise the risk of disruption of one service spreading to other services.
  - Operation of the service should not compromise the availability of recess capacity for freight trains where the latter join or leave passenger tracks.
  - Operation of enhanced orbital service should not unduly compromise present and future services into and out of London termini.

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<sup>6</sup> We acknowledge that this is more true of the east, north, west and south-west of London than it is of the south eastern and south central sections of the former Southern Region, due to the latter's legacy of complex networks and multiple London termini.

<sup>7</sup> It is planned that this route will be replaced by 2009 by new DLR services with higher frequencies and new stations better located for the local population centres. For the purposes of this paper, we assume that this project will go ahead. However this assumption in no way pre-empts London TravelWatch's statutory role in considering whether any hardship will arise from National Rail closures associated with the project, nor any consequential recommendations it might make to the Office of Rail Regulation.

<sup>8</sup> We would define a metro service as one which calls at all or most stations en route within the TfL area. For example, we would regard the Watford DC and the Thameslink St. Albans / Luton all stations trains as metro services (even though they extend beyond the TfL area), whereas we would classify the present Gatwick – Watford as a cross-regional service for which 2 trains per hour would be acceptable.

### Capacity issues

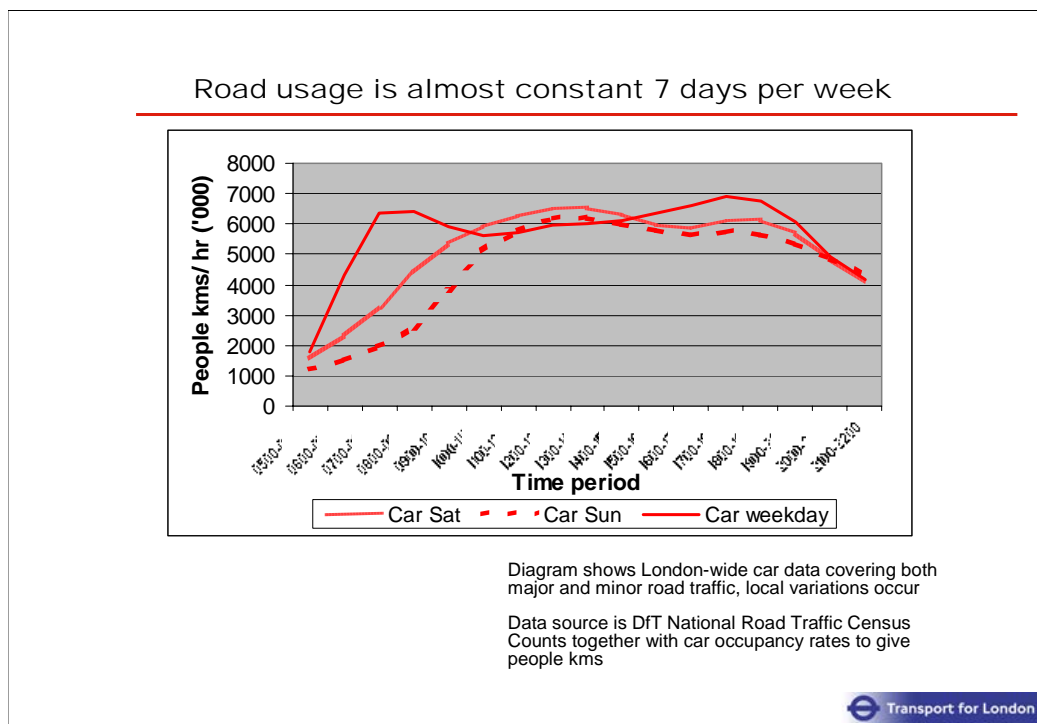
28. Signalling should be improved as necessary for co-existence of at least 6 trains per hour metro services with freight and, on the West London line, cross-regional (Gatwick – Watford) and inter-city (cross-country) services.
29. Separate tracks should be provided as necessary for freight trains to be held (recessed) clear of passenger trains at key junctions.

### Pattern of services

30. The most important factor for successful metro services is frequency. If there has to be a choice between a wide range of through trains at low frequencies and a more limited service pattern operating at high frequency, in principle we favour the latter. This means that many potential journeys will require passengers to change en route. It is therefore vital that interchange facilities (including shelter and information) are good, and that a high priority is given to making these step-free.

### Drivers for passenger growth

31. The recent history of the response to new and improved London orbital services suggests that there is significant suppressed demand for non-central London journeys<sup>9</sup>, and for use of orbital routes as a means of changing onto radial routes for journeys into central London.
32. Road congestion in many suburban town centres is becoming acute, and it is an 'all-day' phenomenon, not just the traditional commuter peaks. Observation suggests that it now affects Saturdays and Sundays almost as much as on Mondays to Fridays. This is confirmed by the TfL Surface Transport Directorate chart shown below and it is an issue which they seek to address. The chart shows how road usage is very high through much of the day all week, with midday weekend use little if any lower than weekday morning peak use. The fact that the peaks are much less pronounced than on rail also bears out the view that road traffic is now very much constrained by capacity.



<sup>9</sup> The visibly high use of contra-flow metro services on radial routes supports this view.

33. Whatever the solution adopted – be it road use charging, more parking controls or more bus lanes<sup>10</sup> - is bound to favour rail services provided these are attractive and well publicised.
34. In addition to these general factors, there are a large number of office, shopping, leisure and housing developments (particularly new high density flats replacing low density housing or industrial sites) under way throughout London, and any in the vicinity of the orbital railways are bound to raise the demand for the latter. Recent examples affecting the orbital routes are the re-opening as offices of the Empress State Building at West Brompton, new flats next to Finchley Road & Frognal station, the nearby new shopping and leisure complex on former railway land, and the re-development of the former Chiswick bus works site. For the future, the impact of the Kings Cross and Stratford railway lands developments will be very substantial.
35. At the more local level, we do not possess comprehensive information on these matters, but much useful material should be available from TfL and the London Boroughs and we consider that Network Rail as lead body for the RUS should take pro-active steps to obtain it.
36. A further significant factor is that – recent success notwithstanding – public awareness of heavy rail services within the London area is relatively low, and particularly so on the orbital services considered by this RUS. The impending increased influence of TfL will result in improved marketing<sup>11</sup> and publicity for these services, hopefully to the extent that metro rail services will eventually become as well understood as the Underground. We believe that – provided the capacity is there to accommodate it – this factor alone will yield a significant step-change in demand, especially on the services considered as part of this RUS.

#### Drivers for freight growth

37. This is not an issue on which we have detailed knowledge, but we fully recognise that orbital rail has to co-exist with freight. It is common sense that only freight which has to use these lines should do so and that wherever possible freight for which London is neither the origin nor the destination should use alternative routes.
38. It seems now to be commonly accepted that the route via Ely should be upgraded to accommodate freight from Felixstowe and Harwich to the midlands and north which would otherwise have to use the North London line. There would also be benefits to passenger services that also use the Felixstowe – Ely – Nuneaton route as a by product of any investment for freight usage.
39. There is less of a consensus that the Redhill - Reading route should be developed for freight from the channel tunnel to the midlands, although it would clearly be beneficial in removing some freight trains from the South and West London lines. For maximum use as a freight route there would appear to be no escape from the need for a costly flyover at Redhill, so such a scheme would be beyond the investment criteria for this RUS. However in order to help assess the case for pursuing it through other channels it would be helpful if the RUS could quantify the London orbital benefits which it might yield.
40. In the meantime, however, the line might be able to take some Channel Tunnel – midlands freight trains away from the London orbital lines if the existing sidings on the west side of Redhill station were configured to enable such trains to reverse without interfering with trains on the main line.
41. A particular concern which we do have in relation to freight growth is the need to provide ample capacity for the newly authorised Thames Haven container terminal, for which the Barking – Gospel Oak and North London lines are the only access routes.

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<sup>10</sup> Or even 'do nothing'.

<sup>11</sup> Including full adoption of Oyster pay-as-you-go.



### Performance issues

42. The biggest risks to performance of orbital passenger services are their interaction with freight and the fact that they tend to have more linkages with other passenger services than is the case for most radial services.
43. On the question of freight we have referred already to our belief that, given adequate signalling and recess capacity, it should be possible for this to co-exist with 6 or more trains per hour electric metro services. However we are aware that there can be problems if there are too many temporary speed restrictions or if there are out of course signal checks, because freight trains have inferior braking and acceleration compared with electric passenger trains.
44. The first priority must obviously be for Network Rail to effectively manage the infrastructure so that temporary speed restrictions are kept to an absolute minimum, and for Network Rail and TOCs to manage train operations to the highest possible standards so that signal checks are minimised.
45. Clearly, however, some speed restrictions and some delays must be allowed for and of course freight train performance is also an issue at low speed junctions. We therefore consider it important that only freight trains with the best acceleration and braking characteristics should be permitted to operate on the London orbital passenger routes during the hours when passenger trains are running.
46. To this end we believe that it should become mandatory that freight trains using these routes should be electrically hauled in view of the superior tractive power – and therefore acceleration – which electric traction can provide. This is one reason why we strongly recommend electrification of the Barking (Woodgrange Park) – Gospel Oak, Dudding Hill and South Acton – Kew Bridge sections, and also related lines such as Acton Wells to Acton Yard, the new terminal at the former Tilbury Riverside station and the Thames Haven branch. Work also needs to be done to allow freight from the Southern network to the West London line to be electrically hauled, such as signalling immunisation between Tonbridge and Clapham Junction via Redhill.
47. So far as braking is concerned – and this relates to both the speed of application and the speed of release – we understand that there have been few technical advances in the UK since BR switched from vacuum to air brakes in the 1960s and 70s. We know that BR originally adopted the twin-pipe air brake system, but later allowed use of the slower single-pipe system. Prohibition of single-pipe trains on the London orbital lines would be a sensible first stage towards reducing the delays caused when freight trains have to stop and start.
48. Further improvement could be obtained if electro-pneumatic brakes could be adopted on freight trains, and we recommend that the feasibility of this be investigated. We would of course stress that the benefits of faster application and release of brakes would be obtained system wide, not just on the London orbital routes.

## Comments on Options listed in the draft RUS

### Option 1: Reconfigure Rolling Stock Layouts

49. We believe there is some merit in increasing capacity in the short term by redesigning the seating configuration of rolling stock. We consider South West Trains refurbishment of its Class 455 stock to have been very successful, and there is already some evidence of higher loadings being achieved on the refurbished units, as well as quicker passenger boarding and alighting, leading to shorter dwell times, and contributing significantly to improved punctuality. The internal layout of both Classes 313 and 150 stock is similar to that of an un-refurbished 455, and similar treatment could be applied, i.e. the replacement of 2+3 seating with 2+2, with a wider gangway giving increased standing space and encouraging passengers to move away from the vestibules. We note that the centre seat of the rows of 3 is deeply unpopular, and often remains vacant, even at times of crush loading.
50. Such measures may assist at peak times in the most overcrowded sections, although as a result some passengers at the shoulders of the peak will be denied seating that they have now, and we are concerned that some journeys on the North London Line (NLL) are relatively lengthy. Any re-configuration of seating should be planned on the basis that no passenger should need to stand for more than 20 minutes on any journey.
51. However, the Silverlink Metro Class 313 units are now amongst the oldest electric trains in regular service on National Rail, and the cost of their refurbishment may not be justified by their remaining life. We are aware that Transport for London (TfL) is seeking to procure new rolling stock for Silverlink Metro services (see below) and we would strongly support such a move. However the internal layout specification for new trains is equally important, and we would expect due consideration of the benefits of a high standing capacity configuration before such stock is ordered, including provision for bicycles, luggage, etc. . London TravelWatch / Passenger Focus should be consulted at an early stage in the design of interior layouts, for both refurbished and new trains.

### Option 2: Extension of the 'Passengers In eXcess of Capacity (PIXC)-buster' concept

52. We note that, with support from TfL, the previously existing Stratford – Camden Road 'PIXC buster' services have been extended to run through to/from Clapham Junction via the West London Line as from 12 December 2005. As well as providing additional capacity west of Camden Road at peak times, this has also introduced new though journey opportunities across Willesden Junction. Operationally, this is a convenient means of providing additional capacity on the West London Line without the necessity to terminate more trains at Willesden Junction (High Level), where track capacity is severely limited. We would welcome the operation of additional 'PIXC buster' services to relieve overcrowding on the Gospel Oak – Barking Line, as well as further through WLL/NLL services (see option 4).

### Option 3: Longer Trains

53. We believe that frequency increases alone will be insufficient on the North London Line, and that longer trains are also required, in part because an increase in frequency will in itself generate increased demand. In addition, the ability to operate longer trains will facilitate the handling of very high levels of peak demand, as are likely to be experienced during the Olympics, for example. In the short term, this might be achieved by lengthening the Class 313 units to 4-car units, perhaps by the insertion of surplus Class 508 trailer cars, but in view of the limited remaining life of these units, new stock is likely to be a better option.
54. Of the 23 stations on the North London Line, around half can accommodate 6-car trains already, and of the others, all but five stations could very easily be lengthened. There are

certainly problems with extending platforms at Willesden Junction (High Level), Gospel Oak, Kentish Town West, Dalston Kingsland and South Acton, but we do not believe these to be insurmountable.

55. Similarly, with the exception of Willesden Junction (High Level), as noted above, we do not envisage problems in extending platforms to accommodate 6-car operation on the West London Line.
56. The RUS has not considered the lengthening of trains (from their existing 2-car formation) to relieve overcrowding on the Gospel Oak – Barking line. We consider that, in view of the proposal to introduce through trains between this line and the West London Line (options 4 and 5); this should be addressed if serious overcrowding on the West London Line is to be avoided (see below). As an interim solution, we would support the introduction of a 3trains per hour service on the Gospel Oak – Barking Line.

*Option 4: Introduce 2 trains per hour Barking – Clapham, 2 trains per hour Stratford – Queen's Park*

57. We would welcome the increased journey opportunities arising from extension of the Gospel Oak – Barking service through to Clapham Junction via the West London Line, as well as the additional capacity this would provide on the NLL section between Gospel Oak and Willesden Junction. A major benefit would be the elimination of the current awkward interchange at Gospel Oak, which involves numerous steps, and is distinctly unattractive, although substantial rebuilding and remodelling would be required. However, we have serious concerns over the prospect of diesel operation over the electrified lines west of Gospel Oak, as well as the loss in capacity on the WLL which would result from replacing three-car trains with two-car trains. This would be a retrograde step, and would be seen as such by users of the WLL.
58. We would therefore support such a proposal only if the Gospel Oak – Barking Line were to be electrified. Curiously, and somewhat disappointingly, the RUS does not so much as mention the possibility of electrification. We are aware that TfL, as part of the East London Line Extension project, is seeking to procure a replacement train fleet for Silverlink Metro, as these will effectively operate together. This fleet is intended to replace all of the class 313s and 508s currently in use, and we would urge that it should replace the class 150s as well, thereby eliminating this small pocket of diesel traction. We have been told that the cost of electrification may be of the order of £20+ million (a relatively modest sum by today's standards) and this should be accompanied by resignalling, so as to maximise capacity.
59. All the orbital routes would benefit greatly from new rolling stock with better performance and designed with modern accessibility, flexible space etc, and with floor height standardised for future level transfer between train and platform.
60. The improved performance and likely operating and maintenance economies achievable with a standardised fleet are further good reasons for electrifying the Barking – Gospel Oak line rather than leaving it as a tiny diesel-worked island.
61. We would give a cautious welcome to the proposed Stratford – Queen's Park service, particularly if Primrose Hill station is to be reopened, giving interchange possibilities with LUL at Chalk Farm. However, we believe extension of the service through to Willesden Junction (Low Level) would be preferable, as Queen's Park is not a major traffic objective. On the downside, the loss of the recently introduced Stratford – Clapham Junction through service would be unfortunate.

Option 5: Introduce additional 4 trains per hour Barking – Clapham, 4trains per hour Stratford – Queen’s Park

62. We consider that the provision of a 4 trains per hour service on the West London Line should be a very high priority, but the comments on Option 4 regarding the undesirability of replacing electric trains with diesel traction still apply. We therefore support Option 5 as an enhanced version of Option 4, subject to the condition that the Gospel Oak – Barking Line be electrified permitting the use of electric stock throughout.
63. This option retains the operational and passenger benefits of operation across Willesden Junction and Gospel Oak, eliminating turn rounds, and awkward passenger interchange, but provides additional capacity on the North London Line (8 trains per hour between Gospel Oak and Willesden Junction).
64. Infrastructure enhancements on the Gospel Oak – Barking Line to improve headways will be required in order to operate a reliable 4 trains per hour passenger service and provide adequate capacity for freight.

Option 6: 2 trains per hour Southern services on the West London Line

65. We are pleased to note that the Cross London RUS does not propose curtailing the existing Watford – Brighton service at Clapham Junction. We understand that there are capacity and performance issues associated with the current crossing movement between slow and fast lines at Balham, and we believe that these trains should run on the slow lines between Clapham Junction and East Croydon. However, we would strongly urge that the southern terminus for this service should not be north of Gatwick Airport, and that it should continue to operate as a semi-fast service outside of the peak, rather than as an all-stations metro service. However we do accept that in order to relieve overcrowding on Southern metro services an all-stations service may be needed at peak times. If this does not prove possible on the slow lines via Norbury, suitable paths via Crystal Palace should be sought.
66. We believe that there may be an increasing demand for travel between the Olympia / West Brompton and the South London metro area. This demand is likely to substantially increase when the new Shepherd’s Bush interchange is opened. A call at Balham would permit same-platform interchange with metro services on the routes via Norbury, Crystal Palace and Hackbridge, reducing passenger interchange at the very sub-standard platforms 16 and 17 at Clapham Junction. It would also provide interchange with the Northern line.
67. We welcome the proposal to increase the frequency of the WLL Southern service to 2 trains per hour, but are not convinced that Shepherd’s Bush and Selhurst are the most suitable terminal points for the additional trains, since they provide only limited possibilities for interchange with other services. We believe these trains should run at least as far south as East Croydon (and preferably to Gatwick Airport), and beyond Shepherd’s Bush, preferably to Watford Junction (or beyond). In addition, all Southern trains on this route should call at Wembley Central throughout the day and not just in the peaks as at present.
68. Patronage on the existing (1 train per hour) Southern cross-Clapham service on the West London Line continues to increase rapidly. We have recently commissioned another passenger count and origin and destination survey to update our work in connection with the Brighton Main Line RUS, and will be pleased to discuss the results with Network Rail when these become available shortly in order to inform this RUS.

Option 7: Divert London Bridge – Victoria services to Clapham Junction

69. We believe that overall there would be passenger benefit in switching the South London Line (SLL) trains to terminate at Clapham Junction rather than Victoria, subject of course to the Integrated Kent Franchise (IKF) providing an alternative Victoria service via the Atlantic Lines

for the affected stations of Battersea Park, Wandsworth Road and Clapham High Street. This would greatly facilitate orbital rail journeys, while at the same time releasing capacity at Victoria for more heavily loaded trains.

70. The South London Line is likely to suffer disruption over the next six years in any case, due in turn to the rebuilding of Battersea Park, Thameslink 2000 works, and the East London Line extension. We therefore support Option 7 and the IKF Bexleyheath line service rerouted via the Atlantic Lines with stops at Clapham High St, Wandsworth Road and Battersea Park using Platforms 7 and 8 at Victoria. We would suggest a round table discussion with the Department for Transport (DfT), TfL, Southern, IKF and Network Rail to discuss this. When the East London Line begins operation to Clapham Junction, South London line trains could be diverted to provide capacity elsewhere.
71. Capacity at Clapham Junction would need enhancement to accommodate the additional services proposed from the WLL and SLL. Reinstatement of Platform 1 would permit cross-platform interchange between WLL and SLL trains, thus greatly facilitating a wide range of orbital rail journeys. We are concerned at the suggestion that this option could be pursued without reinstatement of Platform 1, as we believe it would be essential for the reliable operation of the WLL and SLL services.

Option 8: Raise speeds over Crofton Road Junction

72. We support any cost-effective infrastructure enhancements which enhance the capacity of the network.

Option 9: Move the AC/DC changeover on the WLL to Shepherds Bush station

73. Relocation of the traction supply changeover point to Shepherds Bush station such that raising and lowering of pantographs can be done during a station stop is clearly beneficial. We understand that due to costly signalling immunisation requirements, it is unlikely that this can be achieved in the immediate future. In the meantime, we would wish to see consideration given to the possibility of southbound trains being permitted to effect the changeover (lower pantograph) while on the move. If the TfL proposal to procure a new rolling stock fleet is progressed, improved pantograph design might permit northbound trains to do likewise (raise pantograph)<sup>12</sup>.

Option 10: Provide a southbound freight loop at Kensington Olympia

74. We welcome the proposal to reinstate the up freight loop at Kensington Olympia to permit southbound freight trains to be recessed there, although we would question whether the introduction of South London Line trains to Clapham Junction via Longhedge Junction under option 7 really does remove the ability to stand freight trains between the West and South London Lines (there remains a 64 chains length of the Up and Down Kensington Lines between Latchmere No. 1 Junction and Longhedge Junction available for this purpose). Regardless of this, the loop will certainly provide the ability to recess freight trains destined for the Brighton Main Line without delaying passenger trains.

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<sup>12</sup> See also the letter in the February 2006 Modern Railways from Mr. Gordon Hafter – former LUL Chief Rolling Stock Engineer – regarding installation of more modern pantographs on Class 313s to permit changeover on the move in the northbound direction as well as southbound.

Option 11: Raise speeds over Chelsea Bridge

75. If raising the line speed over Chelsea Bridge can be shown to significantly increase capacity over the West London Line, then we would support such works. However, since passenger trains calling at Imperial Wharf will not benefit greatly from this change, we would wish to be convinced that effectively increasing the speed of freight trains (only) in this area would not in fact reduce line capacity. It should be remembered that capacity rather than improved running times is the crucial issue here.

Option 12: Improve speeds approaching Willesden High Level Junction

76. We support schemes to improve line speeds in the Willesden Junction area. We believe it would be prudent to carry out any such works at the same time as any platform extension works that may be required under option 3, since the latter is likely to require some realignment of the approaches to the high level station in any case.

Option 13: Improve Gospel Oak – Barking infrastructure and the restrictive signal aspects on the North London Line

77. Improvements to the infrastructure of the Gospel Oak – Barking Line in particular are a prerequisite to many of the service enhancement proposals (particularly option 5, which requires capacity for a 4trains per hour passenger service as well as freight). We therefore welcome the proposals for removal of speed restrictions, improvements to signalling headways, removal of weight restrictions and gauging enhancements. The ability to divert freight away from the North London Line and onto the Gospel Oak – Barking Line would release valuable capacity on the North London and Great Eastern Main Lines.
78. We recognise that complete resignalling is unlikely to be achievable within the timescales required for other options, but in the short term, there is scope for headway improvements by extending signal box opening hours and the installation of intermediate block signals. Holloway Goods Loop should be restored to full use to permit westbound freight trains to be recessed.
79. However, we believe that the most serious omission from the infrastructure works proposed under this option is the electrification of the Gospel Oak – Barking Line. This would remove an isolated pocket of diesel traction in an otherwise all-electric passenger network, allowing the use of a common rolling stock fleet throughout the Silverlink Metro network, and would open up the possibility of electric traction for freight. Without electrification of this line, we believe that the cost-effectiveness of the extension of Barking services west of Gospel Oak (as envisaged under options 4 and 5) would be seriously undermined, and would not therefore support this.
80. We also note from a recent TfL consultation on behalf of the Mayor that the areas covered by this RUS are amongst the most polluted areas in London. Although emissions from rail services are low, electrification would be consistent with the ideal of reducing atmospheric pollution.
81. There are a considerable number of substandard road under-bridges on the various lines in this RUS that have less than 16 ft clearance for road vehicles (and which in some cases also narrow the carriageway). Those around Gospel Oak and Acton Central/South Acton are particularly vulnerable to impacts from road vehicles and their presence severely restricts development of the bus network in the area. Consideration should be given to the reconstruction of bridges with 16 ft clearance and at road level allowing for wider carriageways and footpaths/cycle paths. This would serve to increase the accessibility of stations and reduce the likelihood of rail service disruption due to bridge strikes. Similarly replacement of level crossings would be helpful in both simplifying railway signalling systems and maintaining road traffic flow if rail service frequency increases.

82. We would also wish to see the reinstatement of a station at Tufnell Park / Junction Road to improve local transport options & provide interchange with the Northern Line at Tufnell Park. This is a long-standing aspiration. Its viability should be assessed before any investment is made in increasing line speeds at Junction Road Junction.

Option 14: Stratford issues

83. We can see no conflicts between the options proposed in this RUS and the developments at Stratford

Option 15: Sustainable engineering access

84. Our clear position is that engineering access to the tracks must reflect the needs of passengers for 7-day full frequency services. As applies on LUL, any maintenance work which requires track possessions must be done during non-passenger night hours, i.e. 0100 – 0530 (0700 on Sundays).
85. We recognise that there are difficulties when lines are heavily used by freight at night. A cyclical possession strategy based on the use of diversionary routes should be developed, such that maintenance can be carried out without the need to curtail operating hours for passenger services on either a regular or intermittent basis. This strengthens the case for upgrading the freight capability of the Gospel Oak – Barking line (to permit midweek night possessions on the North London Line east of Gospel Oak) and the Kew curves (to permit midweek night possessions on the West London Line).
86. Bi-directional signalling, as already installed on the West London Line, is another possible solution.
87. When major renewals and upgrades make daytime possessions unavoidable, these should as far as possible be confined to Sundays unless there is a very strong and agreed case for a longer blockade.
88. Even under this very passenger-focussed regime, we recognise that service suspensions may be quite frequent. On the London orbital routes these cause great difficulty for passengers because they cut across the grain of the road network and journey times by substitute buses are intolerably long. It is therefore important that the network is configured to provide the maximum possible flexibility for trains to be diverted to alternative routes.
89. This is another reason – in addition to the benefits for freight operation - why we believe that the South Acton – Kew Bridge, Dudding Hill, and Barking – Gospel Oak sections should be electrified<sup>13</sup>. An example of what this could allow would be that a possession at Willesden Junction could be addressed by running trains from Richmond to West Hampstead Thameslink via Dudding Hill, with passengers changing there back onto the North London line. Even if run at low frequency – say 2 trains per hour – such alternative routes would be vastly better for longer journeys than substitute buses, and of course would also be valuable for emergencies.

Option 16: Freight Gauge

90. We are pleased to note the emphasis placed on the provision of W10 gauge diversionary routes. We would wish to see the whole of the North London Line, Barking – Gospel Oak, Kew curves and Hounslow loop lines cleared to W10 gauge. In addition, Clapham Junction to Redhill and Tonbridge should be immunised for class 92 operation as was intended when the

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<sup>13</sup> And also maintained to passenger standards, rather than be subjected to long term condition of track speed restrictions which seem to be widespread on freight lines at present.

latter line was electrified. Redhill yard should continue to allow freight trains to reverse and run round without using the passenger platforms, to enable freight to operate direct from the Tonbridge line to the Great Western Main Line at Reading.

91. There is a considerable level of freight traffic currently using the lines being considered by this RUS which has no business in London. In effect, a significant portion of the scarce capacity available on lines serving densely populated areas of London is being consumed by freight traffic which could be routed via less congested lines elsewhere in the country. We believe that upgrading of the Felixstowe to Nuneaton cross-country route to W10 gauge would have substantial benefits for London and should be urgently progressed.
92. For traffic which must continue to use routes which cross London, the availability of suitable alternative routes for freight trains ensures that various sections of the lines in the RUS area can be maintained during midweek night possessions on a planned periodic basis without detriment to the passenger train service.

### **Additional Proposals: Stations**

93. On all the orbital routes, the location and design of the stations is the result of a very complex historical legacy. In many ways the stations fail to cater for current or likely future needs, and there is a real need for a comprehensive review to identify gaps in the network and the modern facilities which should be provided.
94. So far as new stations are concerned, we believe the following should be considered<sup>14</sup>:
  - Bollo Lane, at the north end of the former Chiswick bus works site now being redeveloped. Station to be located on the North London line where it crosses beneath the District and Piccadilly lines. This should be designed with provision for connection to possible District line platforms. This station might replace the existing South Acton.
  - Junction Road on the Gospel Oak – Barking line. This site is very close to Tufnell Park on the Northern line (2 minutes walk) so as well as improving rail penetration of a densely populated area, it would provide a useful interchange in a segment of London where connections between radial and orbital routes are presently poor.
  - York Way between Camden Road and Caledonian Road on the North London line. To serve Agar Town and the north end of the Kings Cross railway lands development.
  - Lea Bridge and Ruckholt Road on the Stratford - Tottenham Hale line. Lea Bridge is remote from existing rail or Underground services, and Ruckholt Road is at the north end of the Stratford railway lands development site. See paragraph 104 below for relevance of this line to this RUS.
  - Brockley - new platforms on the Nunhead – Lewisham line for interchange with Southern / East London line extension services. This would open up connections between south east London and the Forest Hill – Norwood – Croydon etc. routes. See paragraphs 105-109 below for relevance of this line to this RUS.
  - Brixton – new platforms on South London line tracks. This would enable the line to serve this busy town centre, and provide interchange with the Orpington – Victoria via Bromley and Herne Hill service. The benefits will increase when East London line extension trains operate over the route from Highbury to Clapham Junction, opening up travel opportunities from Brixton and stations on the Orpington line to wide areas of south-west, east and north London. We understand from TfL that construction of such platforms to the latest HMRI standards would be very costly as it would necessitate reconstruction of the viaduct to avoid having platforms on a gradient. If this is the case, we believe the potential

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<sup>14</sup> We include locations which are off the orbital network as defined for the RUS, but which might be served by the same trains.



benefits of the scheme are such that it would be appropriate to seek derogations from the standards so as to avoid the best being the enemy of the good.

- Loughborough Junction On the South London line where it crosses the Thameslink route. An interchange facility here would open up a valuable link between south and west London via Clapham Junction and the St. Pauls / Farringdon / Barbican area. However we acknowledge that such a station would be quite close to the proposed Brixton station and if this was seen as a problem we would regard the latter as a much higher priority.
95. We also strongly support the provision of additional platforms to develop the following stations into major interchanges to improve connectivity between the radial and orbital networks and between various elements of the radial network -
- Willesden Junction – new platforms on the West Coast slow lines to be served by Silverlink County trains, and possibly further platforms to enable the Gatwick – Watford service to call.
  - West Hampstead – new platforms on the Chiltern and Metropolitan lines, and to be complemented by regular calls by Thameslink Bedford – Brighton trains and by the slower MML trains to Leicester – Nottingham and / or Derby.
96. General issues for all stations which will need to be addressed include<sup>15</sup>:
- Improved street 'presence'. Many of the stations are largely hidden from the main thoroughfares which they serve. Examples include Acton Central, Caledonian Road, Leytonstone High Road.
  - All existing interchange facilities should be reviewed with particular emphasis on those which involve use of many stairs. Examples include Peckham Rye, Denmark Hill, Gospel Oak.
  - Few stations have step-free access. A comprehensive plan to address this is essential. However, we recognise that this will be costly and only fully achievable over the longer term. In the meantime all platforms should be assessed individually, and any which can be made step-free relatively easily should be done as soon as possible – even if it means that one platform at a station is step-free whilst the other remains with stairs meantime.
  - A standard should be established so that new rolling stock for the orbital lines has a car floor height which is compatible with level transfer between train and platform. All platform extensions to cater for longer trains should be built to this height, any necessary reconstruction of existing platforms should be carried out likewise and there should be a planned programme to bring all platforms up to this standard. This will benefit all passengers and aid efficient operation of the service – as can be observed today on the DLR and the Jubilee Line extension.
  - Many stations have minimal covered waiting areas. This is inappropriate for a modern metro service, and in wet weather can be operationally unhelpful if it causes passengers to wait in one place instead of spreading out along the platform.
  - Many stations are unstaffed, and most of those which are staffed have only limited hours of coverage. Train operators and funders must develop plans for a radical improvement in this respect, and this must include co-operation with Network Rail to ensure that appropriate staff accommodation is provided.
  - All stations should be brought up to the latest standards for CCTV, lighting, help points, real time information screens and for central monitoring and control of same.

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<sup>15</sup> This paragraph includes issues which are not directly relevant to a RUS, but they are listed here to provide a full understanding of London TravelWatch / Passenger Focus aspirations.

- There should be a full review of station names, both to ensure that they accurately reflect Londoners' general knowledge of the localities they serve (e.g. how many people know where Brondesbury is?) and to encourage awareness of out-of-station interchange facilities. A precedent for the latter was the re-naming of West End Lane to West Hampstead, and examples where a review would be appropriate are Clapham High St. (for Clapham North), South Tottenham (for Seven Sisters) and Wanstead Park (for Forest Gate).
- In respect of car parking, Our position is to support expansion or improvement of facilities where this can act as a means of reducing overall car trip length. In general this means that at inner London stations – as covered by this RUS – we would not encourage additional parking.

#### How best to serve low footfall stations

97. Although there are obviously wide differences in the usage of stations on the London orbital routes, by national standards none of them can be regarded as low footfall. This is borne out by the SRA's published station entry and exit figures. These record the least used station on this network as Wanstead Park at 52,000 single journeys per year and ranking at 1641 out of a national total of 2496 stations, i.e. within the top two thirds of stations<sup>16</sup>. We know that the SRA's figures are an under-estimate because Travelcard journeys at London area stations are not fully taken into account (as acknowledged in the SRA's own commentary on their data). Also there is a lot of ticketless travel on the London orbital network because of limited ticket issuing facilities<sup>17</sup>.
98. Our strong view for this group of services is therefore that all stations should have a full 7-day service, with all metro trains calling. If there are particularly quiet times of day at some stations, it is nevertheless best to maintain service in the interests of simplicity of operation, marketing and publicity. This is a lesson which LUL learned many years ago and they have a programme to provide full opening for almost all of their remaining stations which are currently only open part time.
99. If, however, there are major conflicts between serving quiet stations and other passenger benefits, then we will consider the issues on their merits.

#### The impact on station passenger capacity

100. This is an important point and we are pleased to see that Network Rail is acknowledging it as a factor which must be taken into account in the RUS. Many of the stations have limited capacity which will be strained by the increase in traffic which improved services will bring. A full survey will be needed to identify what improvements will be necessary, and this should be integrated into a planned programme for general improvement in station facilities.
101. Specific locations which we believe need early attention are Willesden Junction where the volume of interchange traffic already causes significant crowding on its short orbital route platforms, and Clapham Junction where access to the orbital route platforms 1 & 2 and 17 & 18 is very constricted<sup>18</sup>.

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<sup>16</sup> For this purpose we set aside the Stratford – North Woolwich section, which in this submission we are assuming will be dealt with under the DLR plans for the area.

<sup>17</sup> This is of course a serious matter which needs to be addressed. We do not condone ticketless travel, but it is not acceptable that due to lack of issuing facilities honest passengers often have no means of paying their fares.

<sup>18</sup> More generally, virtually all aspects of Clapham Junction station are now quite inadequate for the number of passengers using it, and it is essential that early action is taken to agree and implement a major modernisation scheme.

### **Additional Proposals: Services**

102. We believe that this RUS should also take into consideration proposals for service enhancements from outside of the area of the study. In particular, we are aware that the development of the Thames Gateway area will have a considerable impact on travel patterns throughout London and especially on the orbital routes considered by this strategy. We therefore believe for example that there may be a good business case for extending services currently terminating at Barking from Gospel Oak into the Thames Gateway area via Dagenham Dock and Purfleet to Grays. This would have a dual benefit of increasing the catchment area for the orbital service as well as enhancing links by connection to Central London by interchange at Barking.
103. In another case, although Wembley is not part of the area covered by this strategy, we believe that given the current usage of the peak hour journeys on the Watford – Clapham Junction – Gatwick Airport – Brighton service, the development of the Wembley stadium complex and the population growth forecast by the London Borough of Brent in the catchment area of Wembley Central station that consideration should be given to including a Wembley Central stop on this service at all times.
104. Extension from Stratford to Tottenham Hale. Although 'one' has introduced a welcome new service between the Lea Valley line and Stratford, capacity limitations on the Lea Valley line mean that it is never likely to be of metro frequency. However with the North London line at Stratford now planned to be diverted into the high level station, an option becomes available to extend it to Tottenham Hale. This could be achieved independently of the main Lea Valley line from Liverpool St. by constructing a third track on redundant railway land northwards from Coppermill Junction into a third platform on the southbound side at Tottenham Hale<sup>19</sup>. See para. 94 above re. new stations at Lea Bridge and Ruckholt Road. We believe the feasibility of this idea should be fully examined.
105. A further issue is that there is a significant gap in the south London network as there is no link between the busy South East Trains (SET) routes through Lewisham and the large range of connections available at Clapham Junction.
106. To assess and resolve these issues – which are also affected by the withdrawal of Eurostar from Waterloo in 2007 and the recast of SET services under the Channel Tunnel Rail Link (Domestic Services) and Integrated Kent Franchise proposals – we consider that the industry must undertake a co-ordinated review of services and line capacity in the inner south London area.
107. We recognise that such a review would extend beyond the geographical limits of the Cross-London RUS, and would have to embrace issues such as line capacity through Lewisham and the trade-off between the need for additional radial services and the case for a new orbital link to Clapham Junction. However we think it is essential that the RUS takes the lead on this matter. Otherwise it will finish up in the 'too difficult' box, and significant potential passenger benefits will be lost through uncoordinated decisions which could take a generation to untangle.
108. In the meantime, to improve the existing services prior to the East London line extension reaching fruition, arrangements should be made for the present Dartford – Victoria trains to call at Clapham High St. and Wandsworth Road in order to lift their services from 2 trains per hour to 4 trains per hour.

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<sup>19</sup> Some of the necessary land on the approach to Tottenham Hale station has been taken into the Ferry Lane Estate but, with a possible small exception in the vicinity of Yarmouth Crescent, we believe it could be taken back into railway use without property demolition and without unacceptable environmental impact.

109. This is a matter which London TravelWatch has long pursued. SET considers that its existing timetable can accommodate such a change, but the idea has always fallen foul of the fragmentation of the industry – particularly regarding the provision of SET Networker compatible OPO monitors at stations which are managed by Southern. We urge that the RUS should be used as the catalyst for resolving this matter and producing a quick win for passengers.

**Additional proposals: infrastructure**

110. To avoid or reduce conflicts between passenger and freight trains the following suggestions are put forward -

- Acton Wells. Construct a third track between the Dudding Hill and Acton Yard lines, so that trains on this route do not have to block the North London line over this very short distance. If this is not feasible, provide bi-directional facilities so that all movements between Dudding Hill (and also the Willesden yards) and Acton Yard can be accommodated on the eastbound North London line track.
- Reduce freight movements at Acton Wells by re-instating the direct connection between the West London line and Great Western main line at North Pole.

**London TravelWatch and Passenger Focus will be pleased to discuss this response to the RUS consultation with Network Rail**

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