



THAMESLINK

Thameslink 2000 Closures Statement of Reasons
October 2005
Final

Contents

Introduction.....	3
Section 1: The Thameslink 2000 Project.....	5
1.1 The benefits of the project	5
1.2 Improving accessibility for disabled passengers	6
1.3 Safety	6
1.4 Timescales	6
1.5 Consultation	7
Section 2: Reasons for the Closure of the Moorgate Branch.....	8
2.1 Farringdon station design	8
2.2 Passenger usage of the Thameslink Moorgate Branch	9
2.3 Alternative services	9
2.4 Passenger effects of the closure of the Moorgate Branch	9
2.5 Loss of benefit to the Thameslink 2000 scheme	10
2.6 Operational reliability	11
2.7 Platforms at Barbican and Moorgate stations	11
2.8 Safety	11
2.9 Summary	11
Section 3: Reasons for the Closure of Network at London Blackfriars Station.....	12
3.1 Alterations at the station	12
3.2 Network alterations	12
3.3 Effects on station capacity	12
3.4 Effects on passengers	13
3.5 Alternative Services	14
3.6 Closure of station facilities	14
3.7 Minor network closure	14
3.8 Safety	14
3.9 Summary	14
Section 4: Reasons for the Closure of Network at London Bridge Station.....	15
4.1 Alterations at the station and to the network	15
4.2 Effects on station capacity	15
4.3 Effects on passengers	16
4.4 Alternative services	16
4.5 Closure of station facilities	16
4.6 Safety	16

4.7	Summary	16
Section 5: Reasons for the Closure of King's Cross Thameslink Station.....		18
5.1	Changes to the network	18
5.2	The existing station	18
5.3	Areas of the station affected by the closure	18
5.4	Reasons for closure	19
5.5	Safety	19
5.6	Effects on passengers	19
5.7	Alternative services	20
5.8	Summary	20
Section 6: Discontinuation of franchised railway passenger services		21
6.1	Closures under section 38 of the 1993 Act	21
Annex 1 Thameslink 2000 Summary Transportation Case.....		23
Annex 2: Passenger effects of the Closure of the Moorgate Thameslink Branch		24
Annex 3: Thameslink 2000 benefits foregone through retention of the Moorgate Branch.....		23
Annex 4: Network Rail's response to LTUC recommendations (2000)		16

Introduction

Thameslink 2000 is a joint project between Network Rail Infrastructure Limited (Network Rail) and the Strategic Rail Authority (SRA)/Department for Transport (DfT)¹ to expand the Thameslink network which currently links destinations between Bedford and Brighton via central London, as well as linking Luton with Sutton and Wimbledon. Thameslink 2000 will enable trains to run, via central London, between Bedford, Peterborough and King's Lynn in the north and Guildford, Horsham, Littlehampton, Brighton, Eastbourne, East Grinstead, Ashford and Dartford in the south.

The following closures² are considered necessary for the delivery of the Thameslink 2000 project:

- closure of parts of the operational passenger network:
 - the network between Farringdon and Moorgate, after 30 September 2008;
 - the network adjacent to platforms 1, 2 and 3 at London Blackfriars Station after 31 December 2006; and
 - the network adjacent to Platforms 8, 9 and 10 at London Bridge Station after 31 December 2006.
- terminate the use of King's Cross Thameslink Station, Pentonville Road, London NW1, after 30 June 2007 or the date of the opening of London St Pancras Midland Road whichever is the later.
- withdrawal of all national railway passenger services:
 - between Farringdon and Moorgate station after 30 September 2008; and
 - from King's Cross Thameslink Station from the date of its closure.

Together these closures are referred to as the "Thameslink 2000 closures". It should be noted that none of the proposed closures involve London Underground services or networks including those between Farringdon and Moorgate. The proposed closure of King's Cross Thameslink station at Pentonville Road does not preclude the station entrance remaining open to provide access to the LUL network.

The Thameslink 2000 closures were first notified by the Secretary of State for Transport in September 1999 under the Railways Act 1993 ("the 1993 Act"). As required under the 1993 Act the notifications were supported by a Statement of Reasons³. Objections to the proposed closures were lodged and London Transport Users Committee (LTUC)⁴ completed its reports on the proposals in 2000.

However, because of the delays in obtaining the powers necessary for the project under the Transport and Works Act 1992 (TWA), no final decision was taken on whether the closures should be allowed.

¹ DfT took over responsibility for the Thameslink 2000 project from SRA on 25 July 2005

² The term "closure" has the meaning given in section 37(1), 38(1), 39(1), 40(1), 41(1) or 42(1) of the Railways Act 1993

³ Thameslink 2000 Closures: Statement of Reasons, published by the Shadow Strategic Rail Authority 23 September 1999 (1999 Statement of Reasons)

⁴ LTUC was known as the London Regional Passengers Committee (LRPC) at the time of the 1999 Statement of Reasons. From October 2005 it will be known as "London TravelWatch".

The decision on whether or not to allow the closures rests with the Secretary of State for Transport. In the Secretary of State's view, relying alone on objections, LTUC reports and the Statement of Reasons from over 5 years ago to make the decision would be highly unsatisfactory. To provide a better basis for the decision, the Secretary of State has therefore asked LTUC to provide a new report on passenger hardship that might arise from the Thameslink 2000 closure proposals, to take into account of passengers presently using affected services and stations. As part of this, a consultation exercise will allow objections to the closures to be lodged. The Secretary of State has also asked Network Rail and Thameslink Rail Limited to produce a revised and updated Statement of Reasons to assist in making a decision on the applications for railway closures made in 1999 under sections 38, 39 and 41 of the Act 1993. This statement will be available to LTUC and through the consultation process.

The Thameslink 2000 TWA Order applications were subject to a Public Inquiry in 2000/2001. The Inspector published his report on the TWA Inquiry in August 2002⁵. He concluded that *"Thameslink 2000 is a proposal which would enhance existing assets to provide very substantial benefits, both directly to the travelling public and in underpinning the economy of London, and enhancing the conditions for regeneration in parts of the capital"*. However he found himself unable to recommend that the Order should be made due to three deficiencies which were related to planning rather than transportation issues. These issues have been addressed by Network Rail in subsequent planning applications. This revised Statement of Reasons refers to the Inspector's Report where relevant.

Powers to allow the project to be constructed are now being sought simultaneously by Network Rail under the TWA. A re-opened TWA Inquiry into the Thameslink 2000 scheme will start in September 2005. The TWA process will determine whether the project will be allowed to go ahead. It should be noted that Network Rail and Thameslink Rail Limited will only be seeking to implement these closures if the TWA Order is made and the Thameslink 2000 project progresses to construction (or unless a subsequent closure proposal is submitted and approved).

In addition to the Thameslink 2000 closures described in this document a number of other alterations to stations, depots and parts of the network across the routes affected will be made. Some of these alterations will involve closures which, for the purposes of the 1993 Act, may be considered to be "minor closures". Where these minor closures are situated at the locations of the full closures, which are the subject of this Statement of Reasons, they have been noted.

This revised Statement of Reasons sets out the objectives of the Thameslink 2000 project, assesses the effects on passengers, the benefits it will bring, and the value for money it represents to the public sector, together with an explanation of the reasons for each of the individual Thameslink 2000 closures and (where applicable) any alternative transport services that are available.

Thameslink Rail Limited as the licensed operator of Thameslink passenger services and the licensed operator of King's Cross Thameslink station and London Blackfriars national rail station supports the reasons for the closures set out in this document.

5 The Report to the Secretary of State on the Railtrack Thameslink 2000 TWA Order Applications (TWA/97APP10 and TWA/99APP), published August 2002 ("The Report")

Section I: The Thameslink 2000 Project

I.1 The benefits of the project

- I.1.1 The principal objective of the Thameslink 2000 project is to provide the basis for a major expansion of services using the Thameslink route between the new London St Pancras Midland Road station and London Blackfriars station. These services have experienced very substantial demand growth since their introduction in 1988.
- I.1.2 Thameslink 2000 addresses directly the problem of overcrowding of the commuter rail network over a large part of London and the South-East which cannot be tackled except by upgrading infrastructure. The improved infrastructure means that the advantages of direct cross-London services, without the need to interchange can be shared across a much wider part of the South-East and Eastern England.
- I.1.3 The project will:
- reduce overcrowding on Thameslink and other London commuter services;
 - reduce overcrowding on the underground;
 - reduce the need for interchange between main - line and underground train services;
 - provide for the introduction of new cross-London services, so improving public transport accessibility in South-East England, including access to areas of expected demand growth such as the London Bridge area, Docklands, King's Cross/St Pancras and London's airports; and
 - facilitate the dispersal of passengers from London St Pancras following the completion of the Channel Tunnel Rail Link in due course.
- I.1.4 It does so in a way which provides excellent value for money to the public sector as reflected in a benefit cost ratio of 1.7:1.
- I.1.5 The project is designed to deliver a substantial increase in passenger capacity through the provision of a more extensive network of frequent high quality services which cross central London and through the use of longer trains. It will enable more people to travel by public transport in greater comfort across a large part of the rail network in South-East England.
- I.1.6 The project also incorporates the London Bridge Masterplan scheme which as well as permitting the operation of Thameslink 2000 services provides additional benefits. These include increased circulation space throughout the station, a larger bus station, an improved road layout which will comply with the SRA's Code of Practice: Train and Station Services for Disabled Passengers. The scheme will reduce the barrier presented by the railway between north and south and provide opportunities for commercial development and regeneration.
- I.1.7 In delivering these benefits, the project fits with current transport, land-use and environmental policies at a national, regional and local level.

- 1.1.8 The project meets government policy aspirations to achieve greater integration, both in the sense of helping to achieve policies which are not just concerned with transport and in the sense of helping to create a much better public transport alternative to growth in car use.
- 1.1.9 The project provides a number of specific benefits for disabled passengers, and in addition, delivers a range of safety benefits.
- 1.1.10 The benefits of the project have been assessed using an appraisal methodology consistent with the SRA's Appraisal Criteria published in April 2003. Overall the cost benefit element of the appraisal shows a robust surplus of benefits over costs over the life of the project.
- 1.1.11 A summary of the transportation case for the Thameslink 2000 TWA application forms Annex I of this document. It sets out in greater detail the benefits and costs of the project.

1.2 Improving accessibility for disabled passengers

- 1.2.1 The design includes step-free access for Thameslink services at all inner area stations, i.e. London Bridge, London Blackfriars, Farringdon, London St Pancras Midland Road stations. City Thameslink already has step-free access. The design overall is compliant with the SRA's Code of Practice: Train and Station Services for Disabled Passengers.

1.3 Safety

- 1.3.1 Extensive safety risk assessment studies have been carried out as an integral part of design development. Safety targets have been adopted which represent improved levels of safety over the current services, allowing for the increase in passenger numbers. These improvements relate to both the stations and the infrastructure for the train service. In particular, they include train protection - currently intended to be by extensive fitment of the proven Train Protection and Warning System – enhanced safety provisions in the tunnels, and improved fire safety facilities at stations.
- 1.3.2 The design has been discussed with Her Majesty's Railway Inspectorate (the responsible safety authority), and London Fire and Emergency Planning Authority. The Inspectorate, after consulting the Authority, has stated that it sees no reason why the design should not receive approval on safety grounds. The design as presented and discussed included the Thameslink 2000 closures proposed in this Statement of Reasons.

1.4 Timescales

- 1.4.1 The various works that comprise the Thameslink 2000 project will take about five years to complete following several months of enabling works, such as diversion of pipes and cables. They are currently programmed to begin in 2007 and to finish at the end of 2011.
- 1.4.2 On this basis it is expected that Thameslink 2000 services could commence with effect from 2012.
- 1.4.3 **It is possible that the fitting out of the new station box at St Pancras Midland Road, and the commissioning of the new station, (one element of the Thameslink 2000 works) will be undertaken early and outwith the Thameslink 2000 project. This will be a decision for DfT and should that route be followed it will enable an earlier closure of the existing King's Cross Thameslink station than would otherwise be the**

case. Under this scenario it is considered that the earliest date for the closure would be 30th June 2007.

I.5 Consultation

- I.5.1 Network Rail has consulted widely with local authorities, consent granting bodies, landowners, occupiers and other stakeholders on the Thameslink 2000 proposals, in line with the Thameslink 2000 Consultation Strategy which was appended to the Thameslink 2000 Environmental Statement (ES2000) in June 2004.
- I.5.2 Southern Railway, South Eastern Trains and EWS (the station beneficiaries), LTUC, appropriate local authorities and commuter associations have all been informed of the intention to take forward the Thameslink 2000 closures.

Section 2: Reasons for the Closure of the Moorgate Branch

2.1 Farringdon station design

- 2.1.1 The station design proposed for Farringdon, which Network Rail is taking forward under the Transport and Works Act, extends the platforms of the existing station southwards, severing the Moorgate Branch. The platform extensions are required in order to allow the operation of 12 car trains at Farringdon station.
- 2.1.2 Plan 1 shows the existing, and Plan 2 the proposed designs of Farringdon station.
- 2.1.3 In producing a station design Network Rail has taken into account the following issues:
- the handling of projected passenger volumes;
 - the impact on listed buildings and neighbouring premises;
 - the construction impacts; and
 - the requirements of the proposed train service.
- 2.1.4 The station is located within a very constrained site, illustrated by Plan 3. Network Rail believes that the submitted design is the optimal, given those constraints and the station use. This was reflected in the Inspector's report where he stated that *"In my opinion, the capacity provided by the station would be adequate"* (paragraph 7.1.3.2 of the Report).
- 2.1.5 As part of Network Rail's 2004 environmental assessment of the project a northern extension of the platforms at Farringdon was considered. The Alternatives Report⁶ (paragraph 4.2.5) states:
- "The railway descends at a steep gradient (of about 1 in 27) to the north of the station to pass beneath the London Underground lines. The construction of platforms at this gradient would exceed the Health and Safety Executive standards then applicable (and would not comply with current Railway Group Standards). In order to meet these standards, extensive vertical and horizontal track realignment would be required for both the Thameslink and London Underground lines. Such remodelling would require new bridges, cuttings and tunnels to be constructed within a congested urban area. For this reason, the project team considered this alternative to be impracticable."*
- 2.1.6 Other alternatives examined included the retention of the current station with 8 car platforms. This option would have meant that 12 car trains would be unable to call at Farringdon. As Farringdon is important both as a destination station and as an interchange with London Underground such a service pattern would be unacceptable. An alternative would be to have a service pattern of only 8 car trains; this would be unacceptable as the project objectives in respect of relieving overcrowding would not be met.
- 2.1.7 The Inspector found that (paragraph 45.4.3 of the Report):

⁶ Thameslink 2000 Environmental Statement, Alternatives Report (June 2004)

"The closure is necessary in order that Farringdon station can be lengthened, which is a necessity if the core, and therefore the rest of the network, is to be served by 12 car trains. Since a large part of the benefit of Thameslink 2000 is the increase in capacity brought about by the lengthening of trains, the closure can be seen to be outweighed by the benefits flowing from the lengthening of the station".

2.1.8 The proposed Crossrail station at Farringdon is not relevant to this closure application. The design for the Crossrail station exit at Lindsey Street (Barbican) does not depend upon the closure of the Thameslink line between Farringdon and Moorgate stations. The Thameslink 2000 and Crossrail schemes are not dependent upon each other in any way, although they have been designed to be compatible and if both should proceed then an integrated interface will be provided between them both.

2.2 Passenger usage of the Thameslink Moorgate Branch

2.2.1 There are around 2,600 users of the branch in each peak period travelling on the 13 trains operated in the morning peak period, and 11 in the evening peak. Around 300 of these passengers use Barbican station, the remainder Moorgate station.

2.2.2 There are no Thameslink services to or from Moorgate station outside the peak periods and no northbound services from Barbican at any time. This can be compared to the services to Blackfriars from the north of 22 trains in both directions in the peak periods. All Thameslink services run via Blackfriars outside the peak periods.

2.3 Alternative services

2.3.1 Alternative services are provided between Farringdon and Moorgate station, calling at Barbican, by London Underground Limited (LUL) services on the Metropolitan, Hammersmith and City and Circle Lines. The Inspector, in his report, states *"Capacity is available on LUL trains to accommodate displaced passengers"*(paragraph 45.4.1 of the Report). LUL have confirmed that capacity exists on their services to accommodate passengers displaced from current Thameslink services to Moorgate.

2.3.2 Under current fares arrangements the LUL services will be available at no extra cost to the passenger.

2.3.3 The proposed station design at Farringdon also improves interchange at the station.

2.3.4 The Moorgate branch will not be closed until the necessary additional infrastructure is in place to allow those trains which currently terminate at Moorgate to pass south of Farringdon to alternative destinations. This infrastructure will include enhanced power supply south of Farringdon and increased functionality at Elephant and Castle.

2.4 Passenger effects of the closure of the Moorgate Branch

2.4.1 The effects on existing users of the branch have been calculated using independent survey data of passenger numbers and applying a time penalty for the inconvenience incurred from the interchange at Farringdon. The detailed analysis is set out in Annex 2 to this document.

2.4.2 The overall disbenefit to users amounts to 333 hours in each morning peak period. This present value in monetary terms of the time disbenefit to Moorgate branch users is estimated at £65m over a 60 year project appraisal period.

2.5 Loss of benefit to the Thameslink 2000 scheme

2.5.1 An important feature of the Thameslink 2000 project is full utilisation of cross-London capacity. This will be achieved through operating 24 trains per hour in each direction through peak periods (07.00 – 10.00 and 16.00 – 19.00) and through maximum practical use of trains configured in 12-car formations. The feasibility of operating 24 trains per hour has been accepted by the Inspector, who states in his report (paragraph 27.3 of the Report):

“The evidence given has also led me to the conclusion that the consistent operation of the core at a throughput of 24tph would be achievable...”

2.5.2 If the Moorgate branch were to remain open and utilised Network Rail considers that a reasonable level of service on the Moorgate branch would be 4 trains per hour in peak periods. This would mean that it would only be possible to operate a maximum of between 14 and 16⁷ cross-London (ie south of Farringdon) trains per hour at these times, due to the constraints of the flat junction at Farringdon. Furthermore, all services operating to Moorgate would have to remain 8-car length.

2.5.3 A service frequency of 24 trains per hour (18 per hour in off peak periods) over the cross-London Thameslink route as planned for Thameslink 2000 offers a level of service similar to that offered on LUL routes in central London. If this service frequency were reduced, as it would be with the Moorgate branch retained in use, then the appeal of Thameslink in central London as a facility equivalent to an underground line would be jeopardised.

2.5.4 With a reduced throughput of passenger services operated by Thameslink Rail Limited because of the operational constraints of the junction at Farringdon, the balance of planned Thameslink services over the Midland Main Line and Great Northern routes⁸ is upset. Of the combined total of 20 cross-London and Moorgate trains, which could be operated in a peak hour from the north, at least 14 are required to operate over the Midland line in order to preserve current service levels. This means that only six services per hour could be operated to or from the Great Northern line rather than the ten planned with Thameslink 2000. The balance of 4 residual Great Northern trains would need to continue to use the King's Cross (suburban) terminus, which itself can only accommodate 8-car trains, and passengers would continue to need to make the transfer at this busy interchange to the underground or to onward Thameslink services.

2.5.5 The Thameslink 2000 project delivers net generalised time saving benefits of 21,356 hours during the morning peak period. The present value of these and consequential benefits over the project appraisal period of 60 years is around £5.7bn. These benefits can be contrasted with the inconvenience to users of the Moorgate branch.

2.5.6 In Annex 3 detailed analysis of the effect of retaining the branch after Thameslink 2000 services start is set out. As stated above, a service of 4 trains during the peak hour to Moorgate and 16 trains to and from the south beyond Farringdon was assumed. The benefits to users of the branch would be 266 hours per morning peak (not 333 hours, as the frequency of services would be lower than at present). The loss of benefit (from keeping the branch open) to other

⁷ In the 1999 version of the Statement of Reasons the number of trains able to be run south of Farringdon in this scenario was reported as 16 but the more stringent performance regime now in operation means that a figure of 14 is more likely. An optimistic assumption of 16 trains per hour has been used for the purposes of analysis but the potential to accommodate this number of services in practice is questionable.

⁸ The Great Northern routes are King's Cross/Moorgate – Peterborough/Hertford North/King's Lynn

users would be 3,500 hours per morning peak, or over £626m NPV discounted over 60 years. The lost benefits to other users significantly outweigh the benefits to the users of the branch.

2.6 Operational reliability

2.6.1 The removal of Farringdon Junction simplifies the infrastructure of the Thameslink core route. The operation of the branch line would add complexity and, therefore, increase the risk to performance on what will be a very high frequency service.

2.7 Platforms at Barbican and Moorgate stations

2.7.1 These stations are operated by LUL and are exempt from the closure provisions of the 1993 Act by virtue of the Railways (London Regional Transport) (Exemptions) Order 1994.

2.8 Safety

2.8.1 The safety studies carried out in support of the design work for Thameslink 2000 have identified no significant adverse safety implications associated with this closure. Indeed, elimination of the flat junction south of Farringdon Station will remove entirely the risk of train accidents due to conflicting movements at that location, which is a safety benefit.

2.8.2 The Inspector at the first TWA Inquiry considered the issues of the adequacy of Farringdon station for passenger interchange following closure of the Moorgate branch, and concluded that that the design of the station was sufficiently robust. In paragraph 45.10.4 of the Report he states *"It appears to me from the extensive testing which has been undertaken that the degree of crowding would remain within tolerable limits. Apart from the use of stairs, which is a normal part of travel in London, the interchange would be over very short distances and quite convenient."*

2.9 Summary

2.9.1 There are three main reasons why the branch line between Farringdon Junction and Moorgate station should be permitted to close in order to realise the full benefits of the scheme:

- the reduction in through services which would be caused by an attempt to continue serving Moorgate station would lead to a substantial decrease in the forecast benefits from the scheme;
- the proposed station design for Farringdon which forms part of the TWA application physically severs the junction at Farringdon; and
- the continued operation of the flat junction at Farringdon would lead to increased risk to operational performance.

2.9.2 Any inconvenience caused to existing users of the branch by its closure is substantially outweighed by the forecast benefits arising from the scheme. An alternative service between Farringdon and Moorgate stations is provided by LUL.

Section 3: Reasons for the Closure of Network at London Blackfriars Station

3.1 Alterations at the station

- 3.1.1 The station design submitted by Network Rail as part of their TWA application requires the closure of parts of the network within the station. The design for the station will lead to improvements in the passenger environment of the station and will bring substantial operational benefits for Thameslink 2000 services.
- 3.1.2 Plan 4 illustrates the current station and Plan 5 the proposed alterations. As can be noted, the platforms will be extended southwards and an access to the station will be provided on the south side of the Thames. This entrance will provide much needed improved access to businesses in the regenerated Bankside area of Southwark, and to amenities such as the Tate Modern.
- 3.1.3 The terminating platforms, currently platforms 1 to 3, will be removed from the east side of the station and replaced with two new terminating platforms on the west side. The existing platforms are of 8-car length; the new platforms will be of 12-car length. The 12-car platforms may be required to accommodate longer trains to run in the future.
- 3.1.4 Moving the terminating platforms to the west side of the station leads to the need to close the network currently serving platforms 1 to 3.
- 3.1.5 The need to move the platforms is created by alterations to the network approaching London Blackfriars station from the south and east (see Section 3.2 below).
- 3.1.6 As part of the works, major improvements will be carried out at the LUL station at London Blackfriars, including the widening of platforms, the introduction of escalators and lifts, and the provision of emergency escape routes.

3.2 Network alterations

- 3.2.1 The network as it currently stands leads to conflicting movements between trains using the terminating platforms and those services using the Thameslink route, from London Bridge station. This conflict reduces the capacity of the network and without alteration it would not be possible to deliver the 24 trains per hour Thameslink 2000 service envisaged.
- 3.2.2 The proposed changes to the network would remove the conflicting movements at this point as the slow lines from Elephant and Castle will run directly into the new terminating platforms on the west side of the station. The fast lines from Elephant and Castle will serve the through Thameslink platforms. The Thameslink lines from London Bridge station will join the fast lines south of the station.

3.3 Effects on station capacity

- 3.3.1 Whilst the capacity of the station to handle terminating trains would be reduced as there will be one fewer terminating platform, the new platforms will be capable of accommodating 12-car

trains rather than 8-car trains as at present. Moreover the number of trains terminating at Blackfriars would be reduced as some of these will form through Thameslink services.

3.3.2 Overall with the Thameslink 2000 service in operation an additional 14 trains in the peak hour and 6 trains per hour in the off peak will use the station. Throughout the peak period the number of services from the south will increase from 34 to 82.

3.3.3 The increase in train length and frequency will combine to increase train carrying capacity at Blackfriars by almost 200%.

3.3.4 The Inspector has accepted that *“there would be the capacity for further services to be accommodated in the terminating platforms”* (Refer paragraph 27.3.4 of the Report).

3.3.5 The station at Blackfriars will be comprehensively redeveloped under the Thameslink 2000 proposals to accommodate the increase in passenger numbers.

3.4 Effects on passengers

3.4.1 Overall there will be an improvement for passengers at the station, especially for those whose origins and destinations lie on the south bank of the Thames.

3.4.2 Specific improvements include:

- full weatherproofing of the station from the new roof;
- a new ground level concourse on the north bank with improved access to all platforms including lifts;
- shared access and ticketing arrangements with LUL;
- behind ticket barrier interchange with LUL;
- improved passenger access to and from Queen Victoria Street;
- improved toilet facilities;
- improved retail facilities;
- improved facilities for disabled passengers (such as lifts and accessible toilets);
- integrated, coherent information and signage;
- south bank station entrance, ticket office and lifts to all platforms; and
- significant improvement to the LUL station at Blackfriars including lifts to both platforms.

3.4.3 Train services will be provided from a far wider range of origin stations. These are illustrated in Figure 3.1 of Annex 1.

3.5 Alternative Services

3.5.1 The three platforms which are intended to be closed will be replaced by two platforms of 12-car length; these together with the extended through platforms will accommodate all train services at Blackfriars.

3.6 Closure of station facilities

3.6.1 The alteration of station facilities at London Blackfriars, such as the existing terminating platforms, concourse areas and the ticket office will be progressed separately under the minor closure procedures.

3.6.2 In each case where a minor closure is taking place a new, improved facility as referred to in paragraph 3.4.2 will replace it with the exception of one terminating platform. The network is reduced to two terminating lines rather than three, rendering the substitution of the third terminating platform unnecessary. As explained in Section 3.3 above, the overall development of the station will lead to a significant increase in capacity.

3.7 Minor network closure

3.7.1 The Metropolitan Reversible Spur, which links Cannon Street and Blackfriars Stations, is not used for timetabled passenger services. It will be severed and used as carriage sidings. The Rail Regulator previously (January 2001) ruled that the closure of the spur should be considered a minor closure. The proposal to discontinue its operation will be progressed under a separate application.

3.8 Safety

3.8.1 The safety studies carried out in support of the design work for Thameslink 2000 have identified no significant adverse safety implications associated with this closure. Indeed, the design includes features which will significantly improve safety, for example the means of escape from the south end of the platforms in the event of fire.

3.9 Summary

3.9.1 Overall the provision of service and the passenger facilities at London Blackfriars Station will be improved by Thameslink 2000. The closures are necessary for the project to proceed.

3.9.2 Network Rail believes that as there are no material disbenefits caused to passengers, the closures as proposed should be permitted.

Section 4: Reasons for the Closure of Network at London Bridge Station

4.1 Alterations at the station and to the network

- 4.1.1 Current limitations of the infrastructure at London Bridge Station mean that substantial alterations are required in order to allow the planned Thameslink 2000 service to be operated.
- 4.1.2 The redesign of London Bridge Station (but not of the network infrastructure itself) was one of three areas where in his report the Inspector expressed his dissatisfaction with the previous Thameslink 2000 proposals. Following discussions between Network Rail and the SRA it was agreed that a comprehensive redevelopment scheme for London Bridge (known as Masterplan) which had already received planning permission from LB Southwark in September 2003, should be incorporated into the overall Thameslink 2000 scheme.
- 4.1.3 Plans 7 and 8 illustrate the existing station and Plans 9 and 10 the proposed alterations. London Bridge currently is effectively 2 stations, a high-level station with seven through lines (six with platform faces) serving London Charing Cross, London Cannon Street and the Thameslink lines, and a low-level station with nine terminating platforms which are served by trains from South London, Sussex and Surrey. The new station will have nine through platforms and six terminating platforms.
- 4.1.4 A tenth platform (formerly platform 7) in the low level station has been disused since 1990.
- 4.1.5 For the Thameslink 2000 project it is proposed that the fast approach lines currently serving the low-level station are re-routed to serve the high-level. Three additional platforms will be constructed in the high-level stations. All high level platforms will be re-aligned to make them straighter and wider. The existing platforms 8 & 9 in the low-level station will be removed. Consequently the network serving platforms 8 & 9 of the low-level station must be closed.
- 4.1.6 The network serving platform 10 must be closed in order to allow the new high level platforms and tracks to be constructed.
- 4.1.7 The fast lines require re-routing to allow the anticipated number of trains from Sussex and Surrey to gain access to the Thameslink route through the high level platforms, and to allow the existing level of service between London Bridge and Charing Cross to be maintained.

4.2 Effects on station capacity

- 4.2.1 The total number of platforms at London Bridge Station will be unchanged. There will be an overall increase in the capacity of London Bridge Station as a consequence of the proposed alterations and the provision of Thameslink 2000 services.
- 4.2.2 All existing services in the low-level platforms, less those diverted to Thameslink 2000 services, can be accommodated in the new low level platforms.
- 4.2.3 The proposed high level platforms will provide three platforms for London Cannon Street services (as now), two dedicated platforms for Thameslink services (currently there are none) and four platforms for London Charing Cross services (currently three).

- 4.2.4 It will be possible, when necessary, to terminate and start back trains from the platforms in the high level platforms at London Bridge, both eastwards towards Kent and Sussex, and westwards towards the Thameslink route.
- 4.2.5 The station at London Bridge will be comprehensively redeveloped under the Masterplan proposals to accommodate any increase in passenger numbers.

4.3 Effects on passengers

- 4.3.1 Thameslink 2000 will increase the capacity of trains arriving at London Bridge through the operation of additional 12-car trains. Because the Thameslink 2000 services arrive in the high level station the need for low level to high level station interchanges is reduced leading to shorter walking distances at interchange.
- 4.3.2 Access to the station for disabled passengers will be improved by the installation of lifts to all platforms.
- 4.3.3 In the morning peak currently not all services to London Charing Cross are able to call at London Bridge because certain services use the up passenger loop line that does not have a platform. The addition of the new infrastructure will allow all services to London Charing Cross to call at London Bridge during the peak. This will improve the opportunities both to travel to London Bridge, and to interchange there for other services.
- 4.3.4 Not only will there be an increase in the overall level of capacity at the station, there will also be an increase in the number of 12-car services, an increase in opportunities to make cross-London journeys without using the London Underground and an increase in the number of destinations served.

4.4 Alternative services

- 4.4.1 The platforms that are intended to be closed will be replaced by new through platforms.

4.5 Closure of station facilities

- 4.5.1 A number of closures of station facilities are proposed. These include platform and concourse areas, toilets and train operating company accommodation. In each case these will be replaced, where necessary, by new facilities. These closures will be progressed using the relevant procedures.

4.6 Safety

- 4.6.1 The safety studies carried out in support of the design work for Thameslink 2000 have identified no significant adverse safety implications associated with this closure.

4.7 Summary

- 4.7.1 Overall the provision of service and the passenger facilities at London Bridge will be improved by the implementation of Thameslink 2000 and the London Bridge Masterplan.

4.7.2 The closures are necessary for the project to proceed. Network Rail believes that as there is no material disbenefit caused to passengers the closures should be permitted.

Section 5: Reasons for the Closure of King's Cross Thameslink Station

5.1 Changes to the network

- 5.1.1 The King's Cross-St Pancras area is one of the most complex transport interchanges in London. There are three national rail network stations, three deep tube lines and two sub-surface lines, and a substantial number of buses serving the area.
- 5.1.2 Under the terms of the Channel Tunnel Rail Link (CTRL) Act 1996 provision was made for a new station on the Thameslink route at St Pancras Midland Road.
- 5.1.3 London St Pancras Midland Road station, when open, will be within a subsurface 'box' partially below St Pancras Station as shown on Plan 12. This 'box' was constructed during a blockade of the Thameslink route in 2004/05. King's Cross Thameslink station will remain open at least until the opening of St Pancras Midland Road station.
- 5.1.4 The distance between the new St Pancras Midland Road station and the existing King's Cross Thameslink station is approximately 500 metres with London King's Cross mainline station located at about the mid point between them. However, access between the new station and the mainline station will be far easier with no roads to cross in order to walk the distance between them.
- 5.1.5 It is not practicable to retain both stations as the existing station is sub-standard and is unlikely to be upgraded, as explained in section 5.4 below. Furthermore, the retention of the two stations (even if only 8 car trains stopped at the existing King's Cross Thameslink station) would compromise the ability to run 24 trains per hour between London Blackfriars and London St Pancras.
- 5.1.6 For passengers who currently approach King's Cross from the east or north, all but one of the buses that currently drop off outside King's Cross Thameslink station stop at the end of Pancras Road, a short walk from the new station.

5.2 The existing station

- 5.2.1 As can be seen from Plan 11, the existing station is located within a very constrained site, surrounded by buildings and crossed by a number of road bridges.
- 5.2.2 The existing station is located some distance from both London St Pancras and London King's Cross stations and interchange between the two is made either by long underground passageways, or overground by Pentonville Road.
- 5.2.3 The existing station can only accommodate 8 car trains. The service provided by Thameslink 2000 will consist largely of 12 car trains.

5.3 Areas of the station affected by the closure

- 5.3.1 The existing station is owned by Network Rail and operated by Thameslink Rail Limited. There is a statutory right of access between the LUL platforms and the Pentonville Road entrance. This

proposal involves closure only of the areas of the station used in connection with national rail services, i.e. the booking office and platforms A and B. Access to the LUL lines via the Pentonville Road entrance is not affected by this proposed closure.

5.4 Reasons for closure

5.4.1 King's Cross Thameslink station is inadequate in its design and does not meet currently required safety standards. Its inadequacy arises from, inter alia, the following reasons:

- substandard platform widths;
- lack of fire escape routes from platform ends;
- substandard platform length – maximum 8 cars;
- lack of step-free access; and
- poor quality passenger environment.

5.4.2 It is estimated that the cost of providing a 12-car station at the current site would be in excess of £60m. The necessary works would cause serious disruption to Metropolitan and Circle lines on the underground and the surrounding highway. Keeping it open, with the need to undertake necessary improvement works, would not be warranted in terms of cost benefit or disruption to the locality. Moreover, Network Rail does not consider that the necessary powers of compulsory land acquisition for the provision of 12 car platforms, compliant with HMRI standards, in the present site would be granted. The criterion for the grant of such powers – “compelling reasons in the public interest” – is unlikely to be met, given the existence of a new 12-car station at St Pancras Midland Road.

5.5 Safety

5.5.1 The closure of the King's Cross Thameslink station would represent a safety benefit to the network, given its present inadequacies referred to above.

5.6 Effects on passengers

5.6.1 In reaching an assessment of the passenger impacts of the closure of the station it is necessary to consider the effects on local users and those using the station for interchange between modes. The interchange options are as follows:

- Underground: King's Cross/St Pancras is served by four LUL (Northern, Piccadilly, Victoria and Metropolitan/Circle) lines. If passengers have to change at St Pancras Midland Road and do not have the alternative option of interchange at King's Cross Thameslink, there will be some increase in walking distances for interchange to the Piccadilly and Victoria lines, but the routes will be less congested and of improved quality;
- National Rail Network: no reduction in convenience or quality of interchange will result from closure of King's Cross Thameslink station;
- Bus Services: a substantial number of bus services provide access from the east to stops convenient for the new station at St Pancras Midland Road; and

- Pedestrians: the end destinations of passengers arriving at the existing station are illustrated in Figure 5.1. The 800 metre catchment from both King's Cross Thameslink and St Pancras Midland Road stations have been superimposed in order to compare the effects on pedestrians.

5.6.2 The catchment analysis also shown in Figure 5.1 indicates that, whereas a small proportion of passengers who currently walk to their final destination will now either have to walk further than 800m or change for an Underground service, a significant number of other passengers who currently change for Underground services will now be within a reasonable walking distance of their final destination. The net impact across all passengers is likely to be relatively marginal.

5.6.3 In addition, the new station at St Pancras Midland Road will be fully accessible to disabled passengers; the present station is not and it would be difficult and not cost effective (given the existence of the new station) to make it so.

5.7 Alternative services

5.7.1 The station which is intended to be closed will be replaced by a new station at Midland Road, approximately 500m to the west of the present station.

5.8 Summary

5.8.1 The provision of the new station at London St Pancras Midland Road renders the present station redundant. The station itself is substandard and Network Rail and the operator, Thameslink Rail Limited, do not consider that it can be realistically brought into compliance with current safety standards. The closure of the station represents a net safety benefit to the network. Any disbenefit to current users of the station will be marginal as shown in the information presented above and in Figure 5.1. The closure should therefore be permitted to take place.

Section 6: Discontinuation of franchised railway passenger services

6.1 Closures under section 38 of the 1993 Act

6.1.1 As a consequence of the closures proposed by the network operator and the operator at stations under sections 39 and 41 of the 1993 Act the discontinuation of franchised railway passenger services is necessary under section 38. The affected services are:

- between Farringdon Junction and Moorgate station; and
- from King's Cross Thameslink station.

6.1.2 These closures were proposed by the Franchising Director and notified by the Secretary of State under section 38 of the 1993 Act.

Annexes

Annex I Thameslink 2000 Summary Transportation Case

THAMESLINK 2000 ANNEX 1

**Thameslink 2000 Summary
Transportation Case**

Report

June 2005

Prepared for:

Network Rail

Prepared by:

Steer Davies Gleave
28-32 Upper Ground
London
SE1 9PD

+44 (0)20 7919 8500
www.steerdaviesgleave.com

	<i>Contents</i>	<i>Page</i>
1.	OVERVIEW.....	2
2.	BACKGROUND	4
3.	THE THAMESLINK 2000 PROJECT	8
4.	IMPACTS OF THE PROJECT ON PASSENGER DEMAND	11
5.	PROJECT APPRAISAL	14
	Integration	14
	Economy	15
	Accessibility	19
	Safety	19
	Environment	19
6.	CONCLUSION	20

TABLES

Table 4.1	Forecast Journey Time Benefits and Crowding Relief on the Rail and Underground Networks (2016 AM Peak Period)	12
Table 5.1	Latest Thameslink 2000 Appraisal Result	18

FIGURES

Figure 3.1	Thameslink 2000 Indicative Service Plan
------------	---

OVERVIEW

- The principal objective of the Thameslink 2000 project is to provide the basis for a major expansion of Thameslink services, those services having experienced very substantial demand growth since their introduction in 1988.

- Specifically the infrastructure works will permit the operation of rail services that will:
 - i. Reduce overcrowding on Thameslink and other London commuter services;
 - ii. Reduce overcrowding on the Underground;
 - iii. Reduce the need for interchange between mainline and underground train services;
 - iv. Provide for the introduction of new cross-London services, so improving public transport accessibility in South-East England, including access to areas of expected demand growth such as the London Bridge development area, Docklands, King’s Cross lands and London’s Airports; and
 - v. Facilitate the dispersal of passengers from St Pancras following the completion of the Channel Tunnel Rail Link.

- There are two significant changes to the specification of the project since the first TWA Inquiry that affect its transportation case. These are the incorporation of the London Bridge Masterplan and of the resignalling works in the London Bridge area.

- The Masterplan scheme is important in that it permits the delivery of the benefits of the scheme at London Bridge (thus meeting one of the key concerns of the Inspector at the first TWA Inquiry) and provides significant additional benefit.

- The resignalling works at London Bridge were previously planned to be undertaken independently of the project. Changes to signalling standards in recent years now mean that there is a risk that with the existing track layout in the London Bridge area, the current throughput of train services in peak periods could not be maintained when existing systems fall due for renewal. As a consequence, service levels could, in the absence of Thameslink 2000, have to be reduced.

- The project is designed to deliver a substantial increase in passenger capacity through the provision of a more extensive network of frequent, high quality services, which cross central London and through the use of longer trains. It will enable more people to travel by public transport in greater comfort across a large part of the rail network in South-East England.

- Following the Inspector’s recommendations from the first TWA Inquiry the development of the project has continued. The specification of the scheme includes the key features which enable the above objectives to be met:

The capability to operate 24tph through central London in peak periods;

The connection of the existing Thameslink route to the Great Northern Line at King’s Cross;

The provision of an all day high-frequency service between St Pancras and London Bridge;

Provision for 12 car trains on some Thameslink 2000 routes.

- Thameslink 2000 would provide the same overall route network and set of cross London services as at the first TWA Inquiry.
- In delivering these benefits, the project fits with current transport, land-use and environmental policies at a national, regional and local level.

BACKGROUND

- Thameslink was introduced in May 1988 to connect services from Bedford, Luton and St Albans on the Midland Line (which formerly terminated at St Pancras or Moorgate) to Southern Region services. The Snow Hill tunnel between Blackfriars and Farringdon was rebuilt and re-opened, a fleet of dual-voltage trains was introduced and (in 1990) City Thameslink station (between Blackfriars and Farringdon) was opened.
- Thameslink is unique in that it both offers direct through main-line services to stations in the heart of central London, such as Farringdon and City Thameslink, and provides for cross-London journeys without the need to interchange.
- Since its introduction in 1988, the pattern of Thameslink services has evolved. Current services link Bedford with Brighton, Luton with the Wimbledon/Sutton loop and there are also peak period services between Bedford and Moorgate (see Figure 1).
- Passenger travel between places north and south of London newly connected by Thameslink increased by 300% in the first year of operation.
- In 1999/2000 the operators of commuter rail services in London and the South East were timetabled to operate 179.8 million train kilometres. In the last year for which full statistics are available, 2004/5, the same operators were timetabled to operate 191.9 million train kilometres, an increase of 6.7%.
- Over the same period since the first TWA Inquiry, passenger usage (measured in passenger journeys) on London and South East commuter rail operators rose from 631 million per year to 747 million per year, an increase of 18.4%. Similarly, passenger kilometres have risen 19.2% to 21.1 billion per year. The forecasts of demand growth prepared in 1999, on which the benefit cost appraisal presented to the first TWA Inquiry were based, assumed that over the same period rail demand growth would be 3.7%.
- London Underground services also continue to carry high volumes of passengers and experience high levels of overcrowding.
- There are some steps that operators can take to tackle overcrowding problems in the short term, such as (where possible) the provision of more or longer trains, but they are ultimately constrained by infrastructure. Rail services, with the exception of Thameslink, operate into central London termini and these have limited or no spare

platform capacity (e.g. Charing Cross and Cannon Street). The requirement to operate a mix of services (some stopping, some semi-fast, some fast) with a wide range of origins and destinations over an infrastructure with specific track and signalling constraints (e.g. at Borough Market just west of London Bridge) effectively limits the number of trains that can be operated into central London.

- The southbound Thameslink morning peak hour (08h00 – 09h00) service of 15 trains divides at Farringdon, with 7 trains serving Moorgate and 8 serving the cross-London route to Blackfriars. Only two of these trains operate via London Bridge. This is the maximum that can be operated.
- Infrastructure and operational constraints elsewhere on the network combine to limit the northbound Thameslink service to 5 trains in the morning peak hour (08h00-09h00). All of these trains run via Elephant & Castle. It is not possible to fit in a northbound service via London Bridge between 07h30 and 09h00.
- A further problem is that the number of trains that can operate into Charing Cross, Cannon Street and London Bridge is limited to current frequencies by the infrastructure constraints at and around London Bridge as well as by platform capacity. To the north of London there is very limited scope to increase Thameslink or other commuter rail service levels, where the services of long-distance passenger and freight operators have to be taken into account.
- Looking to the future, there are a number of rail schemes in London which would or could affect these problems in a number of ways:
 - the Docklands Light Railway (DLR) extension to Woolwich and North London Line conversion and 3 car operation on Bank branch will reduce overcrowding on main-line rail services to the east of London Bridge;
 - the Channel Tunnel Rail Link will, when fully completed, provide a high-speed link to St Pancras from Kent for domestic passengers as well as international services. The dispersal of passengers from King's Cross/St Pancras will increase the use of already heavily overcrowded Underground lines; and
 - limited upgrading of London Underground lines and stations is planned.
- It is assumed that by 2016, the year by which Thameslink 2000 demand is likely to have built up to an equilibrium state, other network changes will have taken place. These are:
 - Midland Main Line – June 2005 timetable;
 - Inter City East Coast – new franchise commitments from 2005;
 - Channel Tunnel Rail Link (CTRL) completed;

- CTRL domestic services and other services in current Integrated Kent franchise specification;
- Southern – as existing committed timetable by Dec 2005, including Brighton-Ashford and Uckfield changes (Brighton Main Line Route Utilisation Study recommendations not included);
- East London Line – Phase 1 only;
- London Underground – Schemes committed as part of initial Public Private Partnership; and
- Docklands Light Railway (DLR) – committed extensions to Woolwich and North London Line conversion; 3 car operation on Bank branch.
- Forecasting travel demand in London is beset with uncertainties, but the SRA, Transport for London and Network Rail all believe that growth in rail usage is likely to continue.
- At the time of the first TWA Inquiry, the SRA, London Transport and Railtrack were all forecasting that the growth in passengers' use of the railways experienced in the late 1990s would continue. The case presented to the first TWA Inquiry employed forecasts from the LTS model⁹, which was then employed by the Government Office for London. These forecasts were:
- An 11% growth in peak period journeys to Central London from 1991 to 2011;
 - 20% growth in off-peak journeys over the same period;
 - A 16% growth in peak period passenger kilometres – higher than the growth in passenger journeys because of increased long distance commuting.
- In practice, the growth forecast by 2011 has already been exceeded and forecasts of future rail use employed by TfL, SRA and DfT are also now higher than those envisaged five years ago. The main reason for this is that the planning framework for London and the South East, and the London Plan in particular, now envisage considerably higher rates of growth in population and employment.
- The new London Plan is based on an expectation of a growth in London's population of around 11% from 2003 to 2016, with the creation of over 600,000 new jobs in the same period with approaching 250,000 of which being in each of Central and East London. Patterns of demand are likely to change over time. Within central London, particular areas of anticipated growth and regeneration include several served by Thameslink: the area around London Bridge, Docklands (accessible via the Jubilee Line Extension at London Bridge), the South Bank, Elephant & Castle, the area served by Blackfriars, City Thameslink and Farringdon and King's Cross.

⁹ The London Transport Studies (LTS) Model is Transport for London's multimodal transport model for the London Area.

- The Plan provides for this to be accommodated through the provision of 30,000 new homes per year with one of the key focuses of this development being in the Thames Gateway and the London - Stansted – Cambridge corridor to the North of London. As a result the level of increase in public transport usage from places outside Greater London to central London will be greater than that between places within Greater London. Expected growth in demand for air travel from Luton and Gatwick airports is also likely to contribute to this.

- There is, as a result, likely to be increasing demand for travel over longer-distances, including cross-London journeys. As the development of the road network in the South-East is, under current Government policy, likely to be severely limited, the requirement for public transport to cater for rising demand will become more intense.

THE THAMESLINK 2000 PROJECT

- The infrastructure works in the project now include:
 - fitting out the new station at St Pancras Midland Road and the tunnels and connection to the Great Northern Line, powers for the construction of all of which already exist under the CTRL Act;
 - rebuilding stations with improved interchange to LUL services at Farringdon and Blackfriars;
 - a new viaduct at Borough Market to provide new tracks;
 - new tracks and platforms at London Bridge;
 - grade separation of junctions at Bermondsey and additional track at Tanners Hill, Lewisham;
 - extended platforms at certain stations to permit operation of 12-car trains;
 - reinforced power supply and signalling works;
 - London Bridge Masterplan;
 - resignalling works at London Bridge.

- These works will enable 24 trains per hour to be operated throughout the peak periods (07h00-10h00 and 16h00-19h00) in both directions between Blackfriars and St Pancras Midland Road. They will provide, in the London Bridge area, for the separation of Thameslink, Charing Cross and Cannon Street services onto their own dedicated tracks.

- Reconfiguration and improvement of the rail network will permit new destinations to be added into the group of Thameslink routes operating across central London. Apart from the existing (peak hours only) Thameslink service to Moorgate, current services will be maintained and incorporated within the wider Thameslink 2000 network.

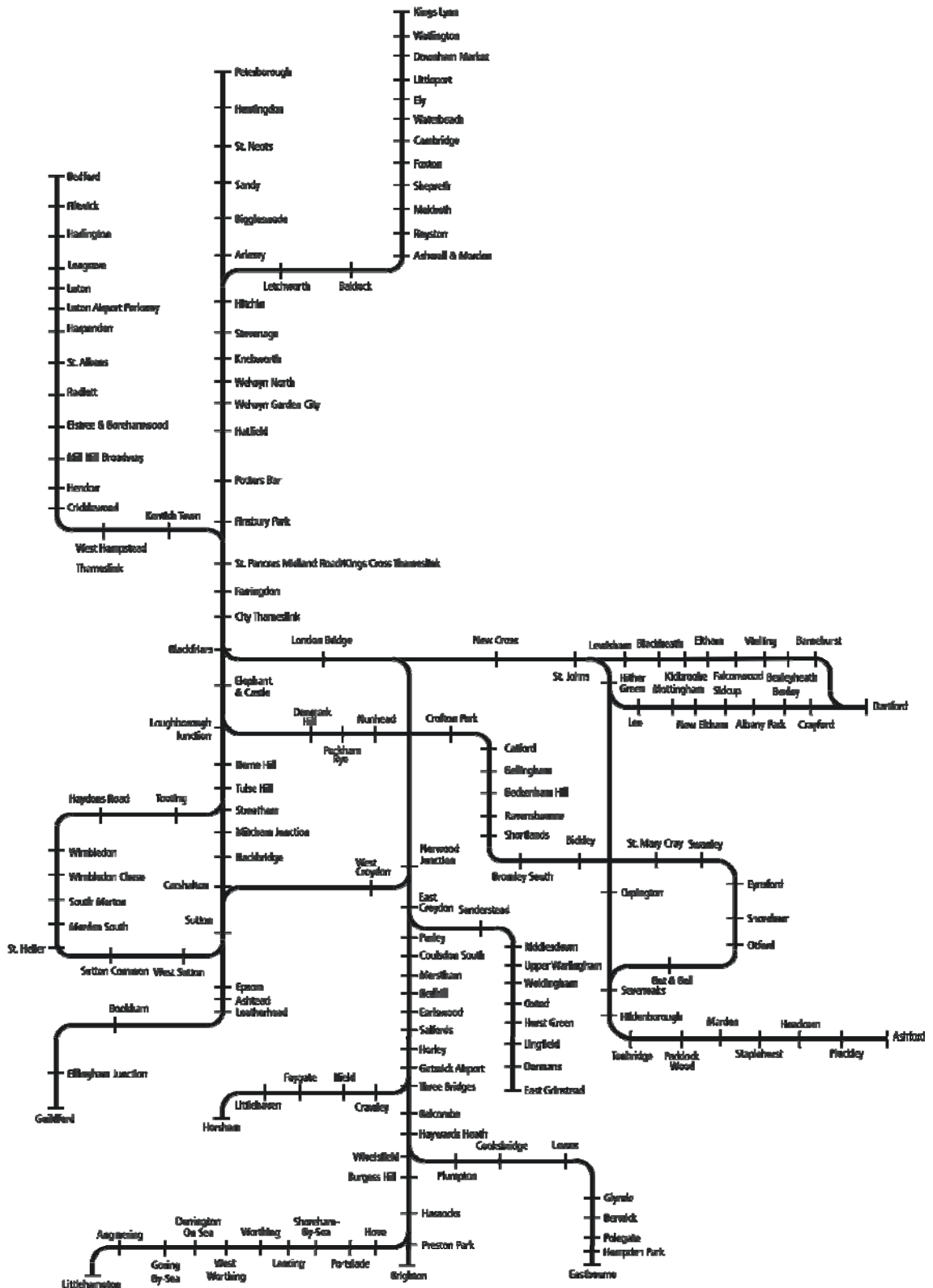
- As a result a number of key improvements will be delivered:
 - service levels will be able to be significantly increased on the Thameslink route within central London in both peak and off-peak periods;
 - passenger carrying capacity will be able to be increased both through the provision of 12-car trains and from the incorporation of additional services across London;
 - more trains will be able to be operated between central London and places south of London at the height of the peak;
 - a wider range of places both north and south of London will be able to have the advantage of direct trains to a range of central London stations;

services will be able to be operated between places north of London and London Bridge throughout the day including the commuter peaks;

- In order to provide for a throughput of 24 trains per hour with a twelve-car train length capability, it will be necessary to close the Moorgate Thameslink branch.

- The range of routes that are currently planned to be incorporated into the Thameslink 2000 network is illustrated in Figure 3.1. Places to be served include Bedford, Peterborough, Cambridge and King's Lynn to the north; Guildford, Horsham, Littlehampton, Brighton, Eastbourne, East Grinstead, Ashford, Sevenoaks and Dartford to the south.

- The assessment on impacts of passenger demand and the appraisal which follows is based on a definition of the Thameslink 2000 project that envisages the development of the infrastructure and services as described here, now with an opening date assumed to be 2012.



IMPACTS OF THE PROJECT ON PASSENGER DEMAND

- In the analysis that follows, the effects of the scheme are compared against a situation where current rail service levels are maintained. Because of the likely reduction in service levels without the project, the effects on crowding levels are conservative estimates.

- The forecasts of background rail demand growth in the South-East used for the latest Thameslink 2000 business case were developed by the SRA and reflect historical relationships of demand to growth in population and employment. These relationships were then used to forecast future rail demand consistent with forecasts of population and employment which, in turn are consistent with the London Plan but also taking into account DfT forecasts of car ownership, car journey times, fuel costs and rail fares.

- The resulting forecasts of passenger demand were employed in the Planet rail assignment and demand model to assess the impact of Thameslink 2000 in 2016. This replaces the forecast year of 2011 used at the time of the first TWA Inquiry.

- The Planet model covers south east England and takes, as a starting point, an origin-destination trip matrix reflecting the pattern of demand for the morning peak period (0700-1000 hours) in a ‘base’ year. The networks of Network Rail, LUL and DLR are all represented in full. A representation of the bus network in central London is also included.

- The Planet model was updated and recalibrated in 2005 to a new base year of 2002 using ticket sales data in conjunction with the LATS¹⁰ London rail passenger surveys undertaken in 2001.

- The Planet model is used to forecast usage of the rail network and benefits (or disbenefits) to rail passengers of service changes. Forecasts of benefits to highway users resulting from a forecast transfer of car user to public transport in response to the improvements offered by the scheme have been made using the LTS multimodal model of the London area.

¹⁰ The London Area Transport Survey (LATS) is a package of surveys designed to give comprehensive statistical coverage of travel in Greater London and the surrounding area.

Impact of Thameslink 2000

- The additional frequency, capacity and opportunities for direct journeys to central London destinations would result in significant increases in demand, particularly on services between London and the South where a reduction in demand at other London termini is forecast.
- 80,000 passengers are now forecast to access central London using Thameslink services in the morning peak period in 2016. This compares to the 75,000 passengers expected by 2011, as reported to the first TWA Inquiry.
- Thameslink 2000 is now forecast to result in around 575 million additional passenger kilometres on the rail network by 2016 as a result of transfer from car and other transport modes as well as from directly induced demand for travel. In a typical morning peak period, 600,000 additional rail passenger kilometres are forecast as a result of Thameslink 2000.
- Benefits of the project take the form of time savings to passengers. Table 4.1 shows that the forecast benefits to passengers in the morning peak period arise from in-vehicle journey time improvements, lower levels of interchange and shorter walk or wait times and a substantial reduction in the level of crowding, expressed as crowded hours.
- The additional capacity provides significant relief to overcrowding. Crowded hours are a measure that reflects the time passengers spend travelling in overcrowded conditions and the perceived discomfort to those passengers of the overcrowding.

Mode	Benefit Hours per Peak Period
In Vehicle (Transit) Time	578
Other Journey Time (Access, Waiting, Boarding Penalty)	8,564
Reduction in Crowded Hours	12,214
TOTAL	21,356

- For many journeys the implementation of Thameslink 2000 would reduce the need to interchange with the London Underground network. This is forecast to reduce passenger volumes on certain sections of the Underground network and therefore provide relief of crowding during peak times. The reduction in passenger volumes on many stretches of the Underground network would be accompanied by a few instances of increased volumes but these are predominantly in the contra-peak direction of flow or are on sections of the network that are not problem areas for crowding.

PROJECT APPRAISAL

- Transport projects are assessed by Government against five criteria. These are:
 - Integration
 - Economy
 - Accessibility
 - Safety
 - Environment.
- This Transportation Case is summarised under these five headings. A cost-benefit analysis is included in the section headed 'Economy'. Environmental impacts are considered in the Environmental Statement.

Integration

- Two concepts of integration are considered here in summary:
 - contribution to transport, land-use, environmental and other policy objectives;
 - contribution to the improvement of transport network integration.
- The project can be considered to continue to fit well with current national and regional policy objectives in relation to transport, development and the environment.
- Since the first TWA Inquiry, there has been significant change in the organisation of the planning and delivery of public transport services and investment. The shadow Strategic Rail Authority (sSRA) represented at the first TWA Inquiry, was replaced by the Strategic Rail Authority in 2001.
- Following the establishment of Network Rail as a public interest company, however, the Government's review of the rail industry as a whole led to the announcement that the SRA would be wound up with various of its functions passing to a newly formed DfT Rail Group, Network Rail, the Office of Rail Regulation and, in some cases, devolved administrations.
- Within London, Transport for London came into being in 2001 and assumed full responsibility for the management of underground and bus networks in 2003. It is also responsible for implementing the Mayor's transport strategy.

- These changes provide a very different context for the delivery of Thameslink 2000 than existed at the time of the first TWA Inquiry. The underlying policy objectives still largely remain but they are articulated through different instruments by different organisations. The Government still wishes to see improvements in integration of transport networks, improved choice between public and private transport modes and best use made of existing infrastructure. Indeed, the principles of the appraisal framework employed by Government to assess strategies and investment in transport are unchanged from 2000. As such the original conclusions on the fit between the project and national transport policy themes remain valid.

- In terms of transport network integration:
 - Rail to rail interchange will be improved by the co-location of Thameslink 2000 with other rail services at London Bridge, Blackfriars and Kings Cross / St Pancras.
 - Interchange between rail and London Underground will also be improved at London Bridge, Farringdon and Blackfriars.
 - Luton and Gatwick airports will be linked to the major rail interchanges at Kings Cross and London Bridge by more frequent services. Stations on the Cambridge/Peterborough lines will have direct services to Gatwick Airport; and stations on the Sidcup and Bexleyheath lines to Dartford will have direct services to Luton Airport Parkway, avoiding cross-London transfer.
 - Waiting environments, information provision and other passenger facilities will be improved at London Bridge, Blackfriars and Farringdon as well as at the newly fitted out St Pancras Midland Road, thus improving the quality of interchange for passengers.

Economy

- The value for money of Thameslink 2000 to the public sector has been assessed using the Department for Transport's well-established cost benefit appraisal methodology. The cost-benefit appraisal brings together all of the measures of project cost and net benefit, including those of a consequential nature, which can be readily quantified and given a monetary value in accordance with DfT guidance.

- Quantified net benefits comprise those experienced by all travellers who see journey time changes or who experience a change in the level of crowding on their journey. They also include road users who enjoy the benefit of less traffic because of transfer from road to rail. There are also quantified financial impacts too, in the form of extra revenues to public transport operations including train operating companies.

- Costs and benefits are allocated to the years in which they arise and are discounted to a common price base of 2002. Benefits are calculated on a net basis so that where any disbenefits arise (for example, in the case of passengers travelling to Moorgate, some of whom would face an additional interchange), these are fully taken into account.

- Since the appraisal presented to the first TWA Inquiry was developed, Government guidance on appraisals of this nature has been revised substantially. As the specification of the scheme and the basis of the demand forecasts for it have also changed it is appropriate to provide an updated appraisal. The cost-benefit appraisal presented here was prepared by the SRA during 2005 employing the assumptions described above with regards to future growth in rail passenger usage and the development of the transport network.

- Changes to Government guidance since the beginning of 2001 include a number of subtle refinements. The most significant changes, however, aim to take account of investment risk in a more transparent fashion, as well as better to reflect the benefits associated with infrastructure assets that have relatively long lifetimes. In addition, the method of calculating the benefit to cost ratio has been changed to measure the economic benefit, net of private sector costs, against the investment cost to government. To complement this, the economic unit of account has been adjusted to account the true cost to government of funding large projects from tax receipts. The revised guidance allows for more rational comparison between government investment opportunities. In summary, the changes are:
 - Reduction of the discount rate for costs and benefits from 6% to 3.5%;
 - Requirement to provide more robust contingency through quantified risk assessment to reduce the tendency towards optimism in cost estimation (known as ‘Optimism Bias’);
 - Costs and benefits accounted over a period of up to 60 years (previously 30 years), subject to justification by asset life, including the calculation of residual value where a shorter period is used;
 - Revised calculation for benefit to cost ratio;
 - Use of market price unit of account.

- The capital, maintenance, renewal and operating costs of the new infrastructure have been quantified and converted into annual track access charges over 30 years, taking account of financing costs consistent with financing of the scheme through Network Rail’s Regulated Asset Base (RAB). Elements of the scheme capital cost that reflect items that would require renewal in the absence of the project such as resignalling in the London Bridge area) are also included as a benefit to represent the cost avoided by proceeding with the scheme.

- Specific changes to capital costs also include the addition of the London Bridge Master Plan costs (plus contingency and financing costs). An increase in the assumed rate of inflation of construction costs has also been incorporated to reflect latest forecasts. Operating costs have been supplemented with additional leasing charges. These mostly represent the requirement for a slightly larger fleet but also reflect the marginal cost of introducing new, replacement rolling stock with the opening of the Thameslink 2000 scheme where the existing stock would not otherwise be replaced until later. This effect is partially offset by reduced light maintenance costs for newer rolling stock.

- Benefits quantified in the economic appraisal are:
 - Public transport passenger time savings;
 - Public transport passenger overcrowding relief (net of any increases);
 - Benefits to road users, including bus passengers, from reduced traffic congestion; and
 - Disbenefits (disrupted journeys for rail passengers) arising during the project's construction period.

- Table 5.1 shows a summary of the current Thameslink 2000 appraisal. This shows all of the changes to actual costs and benefits accounted as well as most of the changes to the appraisal guidance leading to a Benefit to Cost Ratio (BCR) of 1.7:1.

- In addition to the economic benefits quantified as part of the cost benefit appraisal, additional economic benefits would arise from reliability improvements delivered by new infrastructure and rolling stock with improved performance.

- The project is also complementary to regeneration strategies in and around London and will contribute to the delivery of wider economic benefits.

Item:	PV £m (to 01/01/02)
<u>Consumer Benefits</u>	
Net Public Transport Passenger Time Savings	3,035
Net Public Transport Overcrowding Relief	2,457
Net Road Congestion Relief	347
Construction Disbenefits	-46
[A]	NET IMPACT
	5,792
<u>Private Sector Provider Impacts</u>	
Revenue	1,840
Operating Costs & Leasing	-1,355
Capex Track Access Charges	-4,408
Capex Track Access Charges Saved (Avoided Costs)	847
Incremental Renewal Cost	-288
Subsidy (K)	3,365
[B]	NET IMPACT
	0
[C] = [A] + [B]	PV of BENEFITS
	5,792
<u>Central Government Funding</u>	
Grant/Subsidy	3,365
Indirect Tax Revenues	118
[D]	PV of COST TO GOVERNMENT
	3,483
= [C] - [D]	Net Present Value (NPV DfT):
	2,309
= [C] / [D]	Benefit to Cost Ratio (BCR DfT):
	1.7

- This demonstrates that the scheme remains very good value for money. Taking into account the benefits, for which costs are included but which are not quantified here, of London Bridge Masterplan and resignalling in the London Bridge area means this is likely to be a conservative estimate of its value for money.
- The substantial value of the benefits identified in the table reflects the achievement of project objectives – reduced interchange and more frequent services generate passenger time savings, and much less time is forecast to be spent in overcrowded parts of the network. The high value of the benefit cost ratio indicates that the cost benefit case is robust. It would remain a worthwhile project in economic terms even if significantly lower benefits were assumed.

Accessibility

- Thameslink 2000 will improve rail access to central London from the South East of England and beyond by running services through the core route and bringing passengers closer to a greater range of city centre destinations. Moreover, these services will be extended to an additional 121 stations, including Peterborough, Cambridge, Kings Lynn, East Grinstead, Horsham, Littlehampton, Eastbourne, Sevenoaks, Ashford International and Dartford. This will create new journey opportunities and improve access to various opportunities in inner London, including jobs. It is estimated that approximately 2 million people will have access to enhanced rail services.
- In addition to the accessibility benefits of the enhanced rail service, access to and from stations will also be improved through better facilities for pedestrians and for encumbered passengers in particular. This applies in particular to stations in the core area.

Safety

- Travel by rail is generally safer than travel by road in terms of injuries and fatalities per passenger mile. Therefore, any mode switch from road to rail can result in significant safety benefits. These benefits will be realised both by passengers transferring to rail and those still using the highway (including pedestrians and cyclists) through the road safety benefits of reduced congestion.
- Improvements to station facilities will provide additional safety benefits, both in emergencies and with regards to the personal security of passengers. This relates to improved emergency exits, lighting and surveillance and site perimeters, including at Farringdon, Blackfriars and London Bridge and the fitting out of St Pancras Midland Road Station.

Environment

- An assessment of environmental impacts during the construction and operation of Thameslink 2000 has been carried out by independent consultants and reported in the Environmental Statement¹¹. The demand analysis presented earlier identifies a reduction in car traffic, the environmental benefits of which have not been quantified

¹¹ *Thameslink 2000 ES 2004 and ES Addendum, 2005.*

CONCLUSION

- Thameslink 2000 will fulfil a number of key aims:
 - to reduce overcrowding on rail and Underground services;
 - to reduce the need for interchange at congested central London stations;
 - to introduce new services and direct links across South-East England and facilitate the dispersal of passengers from the planned CTRL terminus at St Pancras.
- It will do so in a way that provides excellent value for money to the public sector as reflected in a benefit cost ratio of 1.7:1.
- It will provide specific accessibility and safety benefits. While the Environmental Statement should be referred to for a full appraisal of the project's environmental impacts, the analysis which has informed the Transportation Case has identified a source of environmental benefit, which has not been quantified, arising from reductions in road traffic and transfer to rail.
- The project will meet government policy objectives to achieve greater integration, both in the sense of achieving policies which are not just concerned with transport and in the sense of helping create a much better public transport alternative to growth in car use.
- Thameslink 2000 will address directly the problem of overcrowding of the commuter rail network over a large part of London and the South-East which cannot be tackled except by upgrading infrastructure. The improved infrastructure will enable the advantages of direct cross-London services, without the need to interchange, to be shared across a much wider part of South-East England.

CONTROL SHEET

Project/Proposal Name: THAMESLINK 2000 ANNEX I

Document Title: Thameslink 2000 Summary Transportation Case

Client Contract/Project Number:

SDG Project/Proposal Number: 206307

ISSUE HISTORY

Issue No.	Date	Details
1	27/06/05	Preliminary Draft
2	15/07/05	Final Draft
4	10/08/05	Final
4b	22/08/05	Final (minor amendments)

REVIEW

Originator: RDI

Other Contributors: TJR, LMM

Review By: Print: TJR

Sign: _____

DISTRIBUTION

Clients: SRA

Steer Davies Gleave: 206307 team

Annex 2: Passenger effects of the Closure of the Moorgate Thameslink Branch

THAMESLINK 2000 ANNEX 2

Passenger Effects of the Closure of the Moorgate Thameslink Branch

Report

June 2005

Prepared for:

Network Rail

Prepared by:

Steer Davies Gleave
28-32 Upper Ground
London
SE1 9PD

+44 (0)20 7919 8500
www.steerdaviesgleave.com

<i>Contents</i>	<i>Page</i>
1. Introduction	1
2. Service Provision	2
Existing Services	2
Interchange with other modes	4
Recent Service Changes	4
Proposed Thameslink 2000 Services	4
3. Current Users of the Thameslink Moorgate Branch.....	6
Introduction	6
Passenger counts	6
Passenger distributions	8
Current use of Interchange at Farringdon	10
4. Analysis of Closure Effects on Moorgate Branch Passengers.....	13

FIGURES

Figure 2.1 Existing and Proposed Service Frequencies - Thameslink Core Section (Trains per Hour arriving at King's Cross, Morning Peak Hour 08:00 - 08:59) 5

Figure 3.1 Ultimate Destinations of Passengers using the Thameslink Moorgate branch to Moorgate (Morning Peak Period)- Full Postcodes 11

Figure 3.2 Distribution of Passengers using Thameslink Moorgate Branch Station – LATS (am peak 2001) and CoL (PM peak 2004) Compared, By Postcode District 12

TABLES

Table 2.1 Service Levels to Moorgate and Barbican: Morning Peak	3
Table 2.2 Service Levels from Moorgate: Evening Peak	3
Table 3.1 Morning Peak Period Passengers Counted (1997, 2001 & 2004)	6
Table 3.2 Evening Peak Period Passengers Counted (2001 & 2004)	8
Table 3.3 Morning Peak Period Passengers Counted (1997, 2001 & 2004)	8

Introduction

- This document presents an analysis of the passenger effects of the closure of the Moorgate Thameslink branch, updating analysis presented in the closure hearings, which took place in 2000¹².
- We express our thanks to the Corporation of London for their assistance during the production of this report, and particularly in relation to the provision of information from the survey carried out for them in spring 2004.

¹² Shadow SRA, 23rd September 1999. Thameslink 2000 Closures: Statement of Reasons.

Service Provision

Existing Services

- Thameslink Rail Limited currently operate services linking Bedford with Brighton, Luton with the Wimbledon-Sutton Loop supplemented by peak period services between stations on the Midland Main Line (to Bedford) and Moorgate. The current timetable, operational from 12th June 2005, reinstates the services through King’s Cross Thameslink, which were curtailed in winter 2004 during the construction the St Pancras Midland Road station box. During the blockade, no Thameslink services to Moorgate were operated.

- The service levels operated between places north of London (on the Midland Main Line) and central London are as follows:
 - 13 trains to Moorgate in the morning peak period¹³ and 11 from Moorgate in the evening peak period¹⁴.
 - 22 trains via Blackfriars in both the morning and evening peak periods.
 - 8 trains per hour via Blackfriars in the inter-peak period
 - no trains to Moorgate in the inter-peak period
 - Barbican station is only served by east-bound Thameslink services.

- The number of services operated to Moorgate from stations on the Midland Main Line varies considerably by station. For example, only two services in the peak period are operated to Moorgate from Legrave, whilst there are 13 from St Albans.

- There are also considerable differences between the morning peak period totals and the morning peak hour itself – Moorgate has only one service from Bedford arriving at London King’s Cross between 08:00 and 08:59, but a total of four more in the hours before and after this. A summary of peak period and peak hour service levels is set out in Table 1. In the evening peak hour this pattern is reversed; that is, there is only 1 train in the evening peak hour from Moorgate to inner stations between Kentish Town and Radlett inclusive, whilst there are 3 to Bedford.

¹³ Arriving at King’s Cross Thameslink between 07h00 and 09h59

¹⁴ Departing from King’s Cross Thameslink between 16h00 and 18h59

	Morning Peak Period ¹⁵			Morning Peak Hour ¹⁶		
	To Moorgate	To Blackfriars	Total	To Moorgate	To Blackfriars	Total
From station						
Bedford	5	13	18	1	7	8
Flitwick	5	11	16	1	5	6
Harlington	2	7	9	1	3	4
Leagrave	2	9	11	1	5	6
Luton	9	15	24	4	7	11
Luton Airport Parkway	6	11	17	4	5	9
Harpenden	9	15	24	4	7	11
St Albans	13	19	32	7	6	13
Radlett	8	8	16	6	1	7
Elstree & B'hamwood	8	8	16	6	1	7
Mill Hill Broadway	6	6	12	4	-	4
Hendon	6	6	12	4	-	4
Cricklewood	6	5	11	4	-	4
West Hampstead Tlk	8	7	15	6	1	7
Kentish Town	6	5	11	4	-	4
King's Cross Tlk	13	22	35	7	8	15
Sub-total to:						
Moorgate branch	13		13	7		7
Blackfriars		22	22		8	8

	Evening Peak Period ¹⁷			Evening Peak Hour ¹⁸		
	From Moorgate	From Blackfriars	Total	From Moorgate	From Blackfriars	Total
From Station						
Blackfriars		22	22		9	9
Moorgate	11		11	4		4
Sub-total to:						
King's Cross Tlk	11	22	33	4	9	13
Kentish Town	2	10	12	1	3	4
West Hampstead Tlk	3	12	15	1	5	6
Cricklewood	2	10	12	1	3	4
Hendon	2	10	12	1	3	4
Mill Hill Broadway	2	10	12	1	3	4
Elstree & B'hamwood	3	12	15	1	5	6
Radlett	3	12	15	1	5	6
St Albans	10	22	32	3	9	12
Harpenden	10	16	26	3	7	10
Luton Airport Parkway	7	14	21	2	6	8
Luton	10	16	26	3	7	10
Leagrave	6	8	14	2	3	5
Harlington	5	8	13	1	3	4
Flitwick	8	10	18	2	4	6

¹⁵ Arriving at King's Cross Thameslink between 07h00 and 09h59

¹⁶ Arriving at King's Cross Thameslink between 08h00 and 08h59

¹⁷ Departing King's Cross Thameslink between 16h00 and 18h59

¹⁸ Departing King's Cross Thameslink between 17h00 and 17h59

Bedford	9	10	19	3	4	7
---------	---	----	----	---	---	---

Interchange with other modes

- The Moorgate Thameslink branch operates immediately alongside the London Underground Ltd (LUL) route between King’s Cross and Moorgate (and on to Liverpool Street). Services on this route are provided by the Metropolitan, Circle and Hammersmith and City lines with a combined peak frequency of 28 trains per hour.
- Bus services operating on behalf of London Buses between King’s Cross / King’s Cross Thameslink and Moorgate are provided by two services:
 - 214 (every 6-9 minutes weekday daytime, 9 minutes timetabled off peak journey time);
 - 205 (every 9-11 minutes weekday daytime, 9 minutes timetabled off peak journey time)

There are currently no direct bus services to Barbican station from King’s Cross.

Recent Service Changes

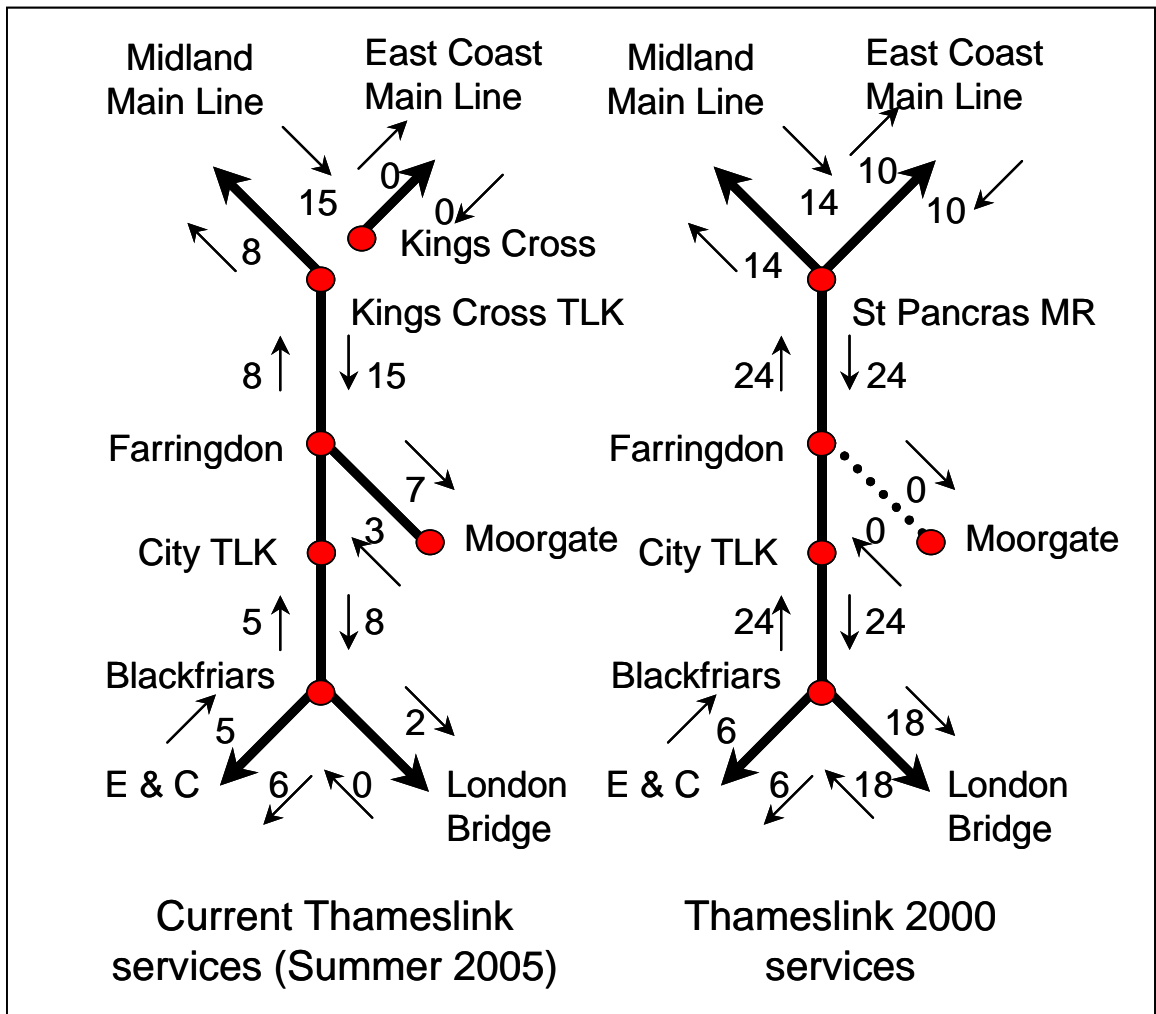
- The service operated by Thameslink Rail to Moorgate has changed during the period 1999 to the present day.
 - The hourly inter-peak service that operated to/from Moorgate (mentioned at the previous closure hearing) ran only for the currency of the winter 1999 timetable¹⁹. In this timetable, two late evening trains were operated leaving Moorgate and Barbican for Bedford. One of these two trains was withdrawn from the spring 2000 timetable; the remaining late evening service was withdrawn during the St Pancras blockade and has not been reintroduced in the summer 2005 timetable.
 - In the current timetable all 4 of the inbound peak hour stops at Hendon, Mill Hill Broadway, Cricklewood and Kentish Town are on services bound for Moorgate – in 1999, there was only one service to Moorgate from these stations.

Proposed Thameslink 2000 Services

- It is proposed to discontinue Thameslink services between Farringdon, Barbican and Moorgate. An overall peak hour service level on the Midland Main Line of 14 trains per hour will serve Farringdon. In effect, the current Moorgate services will be diverted to operate over the core section of the route between Farringdon and Blackfriars and onwards to serve stations south of the Thames. The total planned Thameslink 2000 service is 24 trains per hour over the core section in the morning peak period.

¹⁹ Period of validity: 26th Sept 1999 – 27th May 2000

- The current and planned service levels in the core section are illustrated in Figure 0.1.



Current Users of the Thameslink Moorgate Branch

Introduction

- There have been a number of relevant surveys of usage of the Thameslink Moorgate branch:
 - Counts and surveys were undertaken by Urban Initiatives on behalf of Railtrack/sSRA in 1997;
 - the London Area Travel Survey (LATS) counted and interviewed rail passengers on Thameslink services in 2001 as part of a wider survey programme;
 - Network Rail’s terminal counts (survey on 18/06/02 quoted here); and
 - the Corporation of London undertook a count and survey in March 2004.

Passenger counts

- Relevant passenger counts are set out in Table 0.1 for the morning peak period. The most recent count observed a total of almost 2,600 users of the Thameslink Moorgate branch in the morning peak period. This can be compared with a total of just over 2,000 observed in 1997, and a total of just over 2,600 observed in LATS in 1991 for Moorgate station alone.
- Of those using Moorgate, most people (81% – 85% across all surveys) walked from Moorgate to their ultimate destination (morning peak) or walked to Moorgate from their journey origin (evening peak), and could therefore be expected to be directly affected by the closure of the Moorgate branch. At Barbican all passengers observed in the 1997 morning peak survey walked directly to their destination.

Morning Peak Period	Railtrack/ SSRA		LATS		Network Rail	CoL
Date	1997		2001		2002	2004
Moorgate Station						
Walk from Moorgate	1,517	85%	2,127	81%	-	-
Change to LUL	267	15%	408	16%	-	-
Other	-	-	75	3%	-	-
Subtotal	1,785		2,610		-	2,270

Barbican Station					
Walk from Barbican	246	100%	-	327	326
Change to LUL	0	0%	-	-	-
Other	-	-	-	-	-
Subtotal	246		-	327	326
Total branch	2,031		-	-	2,596

- Of those interchanging to LUL services at Moorgate, most would be expected to change onto the Metropolitan / Circle / Hammersmith & City lines at Farringdon instead of Moorgate, change at King's Cross or Kentish Town (to Northern Line) or continue to London Bridge (for Jubilee Line to Docklands).
- The recent Corporation of London passenger count is set out in Table 0.2 for the evening peak period. The most recent count observed a total of 2,604 users of the station, very similar to the branch total of 2,596 observed in the morning peak period.
- Note that Barbican Station is not served by outbound Thameslink services.

Evening Peak Period	CoL	
Date	2004	
Moorgate Station		
Walk to Moorgate	2,110	81%
Change from LUL	380	15%
Other	114	4%
Subtotal	2,604	

Passenger distributions

- The ultimate destinations of those who walk from Moorgate are shown in Table 0.3 for each survey. There is a high level of consistency between the survey sources. Note that the information for the 2004 survey relates to origins of passengers departing Moorgate in the evening peak period, whilst LATS and the 1997 survey present the destinations of passengers arriving in the morning peak period.

Postcode	AM peak period	AM peak period	PM peak period
	Urban Initiatives 1997	LATS 2001	Thameslink Moorgate & Barbican 2004
EC1	6.0%	6.1%	7.7%
EC2	56.2%	55.8%	49.7%
EC3	17.3%	17.5%	18.7%
EC4	5.6%	6.9%	6.7%
E	4.8%	9.2%	11.0%
N1	0.0%	0.9%	1.3%
SE1	3.8%	2.3%	3.0%
W1	0.0%	0.0%	0.4%
NW1	0.1%	0.0%	0.2%
Other	6.1%	1.3%	1.3%
Total	100.0%	100.0%	100.0%

Passengers	1,785	2,610	2,604
-------------------	-------	-------	-------

- Analysis of the CoL 2004 survey data indicates that in the evening peak, of those who currently walk to Moorgate from their ultimate trip origin, around 358 or 17% (358 / 2110) would remain within a straight-line 800m walking distance of a remaining Thameslink station (London Bridge, Blackfriars, City Thameslink or Farringdon) after the Moorgate branch closure.

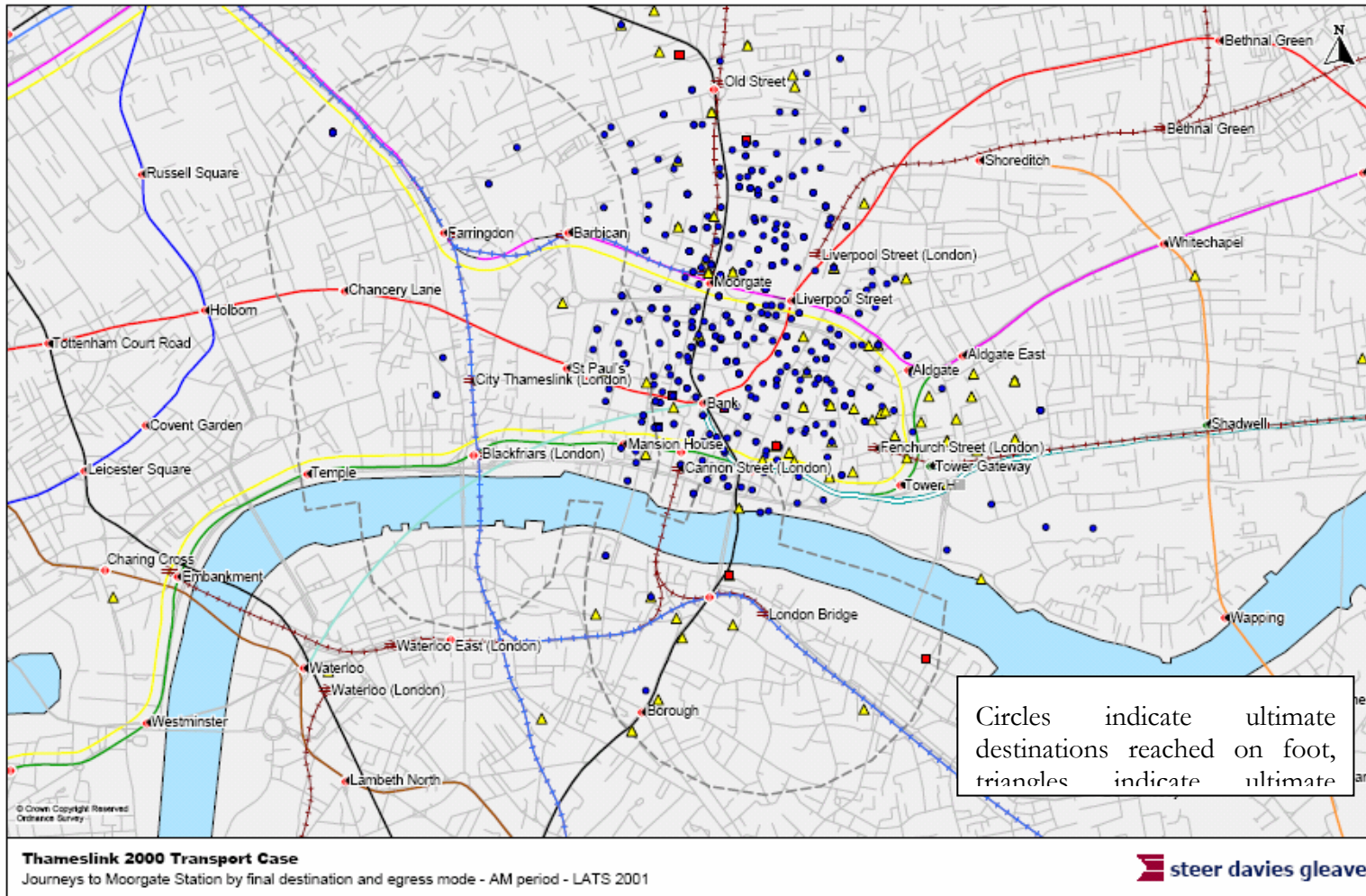
- In LATS, of those who currently walk to their ultimate destination from Moorgate station in the morning peak period, around 322 or 15% (322 / 2127) would remain within 800m of a station remaining served by Thameslink after the Moorgate branch closure. The distribution of surveyed destinations is set out in Figure 0.1.

- The LATS 2001 and CoL 2004 distributions (by Postcode District) are set out in Figure 0.2.

- The two data sources can be used to calculate average existing walking distances to/from Moorgate station:
 - Average walk distance 593 metres (CoL 2004)
 - Average walk distance 527 metres am / 566 metres pm (LATS)

Current use of Interchange at Farringdon

- In LATS, 162 out of 2,127 who walked to destination from Moorgate having boarded at TL north stations interchanged at Farringdon anyway (7.6%) to reach Moorgate rather than take a direct train.



C:\Documents a

P:\CGI\GIS\Work\Projects\6300s\6307\MapInfo\MapInfo\Workspaces\LATS_M&B_Moorgate_AM_PM_colors1.wor

Analysis of Closure Effects on Moorgate Branch Passengers

- An analysis of the impacts on Moorgate branch passengers was undertaken by Symonds Travers Morgan working on behalf of London Transport Planning²⁰ in 1999. This analysis reported that the average additional perceived journey time per passenger affected was 7.7 minutes. If the average forecast of AM peak travel growth into central London is applied to the current level of demand of 2,596 passengers using the Thameslink Moorgate branch (City of London 2004 survey, morning peak period), this produces a passenger disbenefit of an additional 416 (perceived) person hours in a morning peak period at forecast 2016 levels of demand (approximately 3200 passengers).

- Applying the additional journey time to all users of the Thameslink Moorgate branch is likely to overestimate the actual impact because:
 - Some passengers already interchange at Farringdon to reach Moorgate;
 - Some passengers currently interchanging at Moorgate to LUL could interchange elsewhere;
 - It takes no account of the point that the future frequency of services to Farringdon is higher than the frequency of existing services to Moorgate.

- It should also be noted that interchange between Thameslink services and LUL at Farringdon will be improved by the Thameslink 2000 project through the construction of a new interchange footbridge at the northern end of the station (the design of which was revised during the first TWA Inquiry). However, in the evening peak, in addition to the interchange impacts set out above, Thameslink Moorgate branch passengers would be joining trains already in service at Farringdon, which are likely to be more heavily loaded than trains that formerly started from Moorgate.

²⁰ LT Planning, March 1999

CONTROL SHEET

Project/Proposal Name: THAMESLINK 2000 ANNEX 2

Document Title: **Passenger Effects of the Closure of the Moorgate
Thameslink Branch**

Client Contract/Project Number:

SDG Project/Proposal Number: 206307

ISSUE HISTORY

Issue No.	Date	Details
1	24/06/05	Preliminary Draft
2	15/07/05	Final Draft
5b	11/08/05	Final

REVIEW

Originator: LMM

Other Contributors: MTM

Review By: Print: RDI

Sign: _____

DISTRIBUTION

Clients: SRA

Steer Davies Gleave: 206307 team

Annex 3: Thameslink 2000 benefits foregone through retention of the Moorgate Branch

THAMESLINK 2000 ANNEX 3

Benefits Foregone Through the Retention of the Thameslink Moorgate Branch

Report

June 2005

Prepared for:

Network Rail

Prepared by:

Steer Davies Gleave
28-32 Upper Ground
London
SE1 9PD

+44 (0)20 7919 8500
www.steerdaviesgleave.com

	<i>Contents</i>	<i>Page</i>
1.	INTRODUCTION	2
2.	BENEFITS FOREGONE THROUGH RETENTION OF the Moorgate Branch	3
	Moorgate user disbenefits in context	5

FIGURES

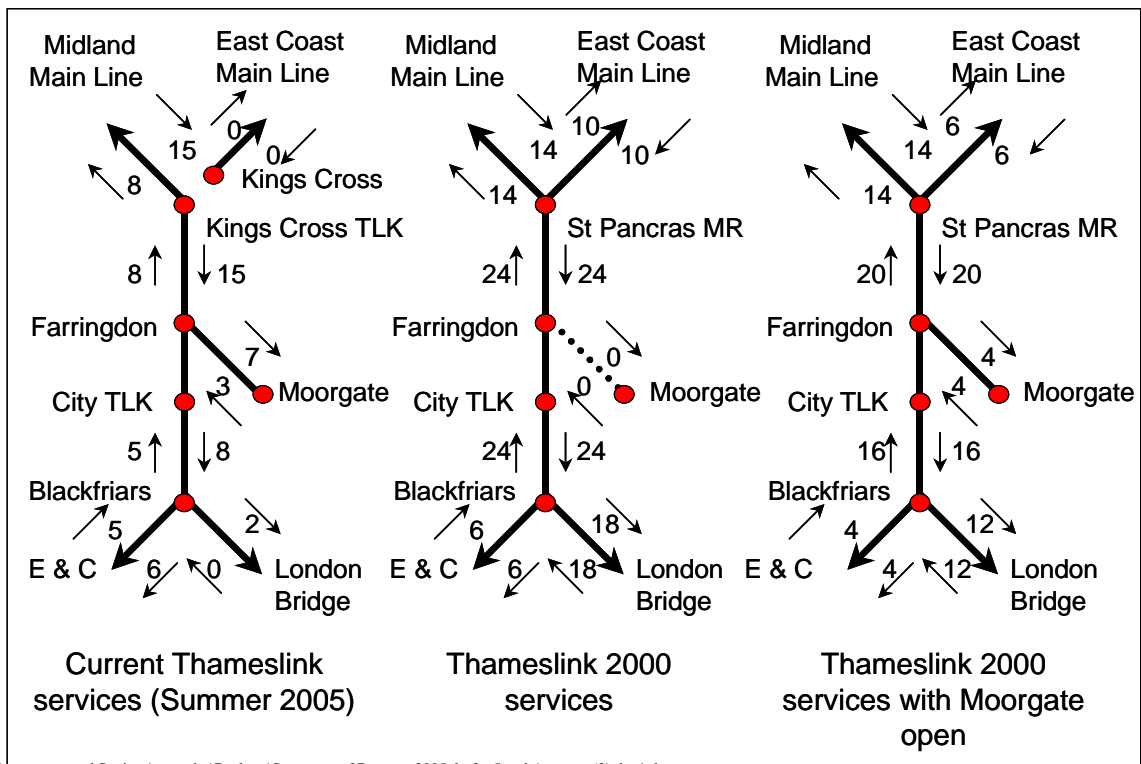
Figure 2.1 Existing and Proposed Service Frequencies – Thameslink Core Section (trains per hour, morning peak hour 08h00 – 08h59) 3

INTRODUCTION

- In this paper the effects on the Thameslink 2000 project and its benefits of retaining the Moorgate branch are described.

BENEFITS FOREGONE THROUGH RETENTION OF the Moorgate Branch

- If the Moorgate branch were to be left open, SRA and Network Rail believe it would be reasonable to conjecture a service of 4 trains per hour to Moorgate and 14 trains per hour through the Farringdon – Blackfriars core section.
- Maintaining the Moorgate branch service would therefore reduce the Thameslink 2000 cross-London service frequency from 24 trains per hour. Although Network Rail believe that only 14 trains per hour would be possible, comparative analysis has been undertaken based on the assumption that as many as 16 trains per hour could be operated between Farringdon and Blackfriars (see Figure 2.1). This represents an optimistic view of what could be achieved if the Moorgate branch were to be retained.
- Twelve-car trains cannot be operated to and from Moorgate. Because services from the Midland line to the Wimbledon-Sutton loop must be maintained under Thameslink 2000 and these can also only be operated using eight-car trains, the scope to increase capacity through the use of 12-car trains would be constrained if Moorgate were to be left open.



C:\Documents and Settings\mgander\Desktop\Statement of Reasons 2005 draft v5 and Annexes (2).doc 1.doc

- As a consequence of the reduction in cross-city services, it is likely that the Dartford (via Sidcup), Sevenoaks, East Grinstead and Guildford routes would be removed from the Thameslink 2000 network entirely.
- Assuming that a full 16 trains per hour would be possible through the core route, the main impacts on the Thameslink 2000 services in central London would be as shown below in Table 2.1.

From	To	Existing Service Level	Thameslink 2000 Service Level	Modified Thameslink 2000 Service Level with Moorgate Retained	Consequential Reduction in Thameslink 2000 Service Level
London Bridge	Blackfriars	0	18	12	-33%
Great Northern	Farringdon	0	10	6	-40%
Elephant & Castle	Farringdon	3	6	4	-33%
Blackfriars	Farringdon	5	24	16	-33%
Midland Line	Farringdon	15	14	14	-
Midland Line	Blackfriars	8	14	10	-29%

- Prior to the first TWA Inquiry, the modified version of the project with Moorgate kept open was analysed using the same forecasting models used for the planning version of the project. The forecasting models provide estimates of user time-savings generated by the project in both the with and without-Moorgate cases. The models also provided, for the two cases, estimates of the overcrowding relief. More detail on the models used is provided in Annex 2. As is normal in demand modelling, the values calculated reflect the perceptions of journey time components such as interchange and waiting time and not simply the overall end-to-end journey time.
- The resulting impact of retaining the Moorgate branch on the benefits forecast for Thameslink 2000 is shown in Table 2.2.

Reduction in Benefit (Hours per Morning Peak Period)	
Time Saving	-14%
Overcrowding Relief	-16%
Net Effect	-15%

Sources: Planet

- Applying these results to the latest business case analysis indicates that if the Thameslink Moorgate branch were to be retained in the Thameslink 2000 scheme, the

morning peak period time savings would be reduced by over 0.77m hours, equivalent to £240m PV (note that the off-peak levels do not reduce in proportion). Overcrowding relief in the peak period would be reduced by 1.0m hours, equivalent to a loss of £386m PV. The total disadvantage (reduction in benefit) to the project would be £626m PV.

- Were the Moorgate branch to be retained then Farringdon could be operated only as an 8-car station. As it is considered most unlikely that HMRI would agree to Selective Door Operation at this station, 12-car trains would not be able to serve Farringdon; instead, 12-car trains would need to run fast between St Pancras Midland Road and City Thameslink. The inability to deliver higher capacity trains to one of the most important destinations in the core area would call into question the viability of the Thameslink 2000 scheme as a whole.

Moorgate user disbenefits in context

- The net effect of retaining the Moorgate branch is to reduce the benefits of Thameslink 2000 by £626m PV (or 11% of the total scheme benefits). That is, these project benefits would be foregone if the Moorgate branch were not to be closed. In the morning peak period in 2016, passenger journeys would be extended by a total of around 3,500 hours (including perceived time savings and overcrowding relief).
- To put this in context, it is possible to make an estimate of the benefits Moorgate branch users obtain from keeping the branch open (assuming that the Thameslink 2000 project proceeds). This analysis takes into account growth in passenger demand to 2016 and the reduced level of service on the Moorgate branch (4 trains per hour). Taking these factors into account, and allowing the same 7.7 minute penalty and assumptions equivalent to those made by London Transport Planning in their 1999 analysis, the estimated benefit in the morning peak period in 2016 is approximately 266 hours.
- It can be seen on the one hand that, once the Thameslink 2000 project proceeds there is an additional peak period time benefit of about 3,500 hours largely attributable to the higher cross-London service frequency achievable by closing Moorgate. On the other hand, if it is first assumed that the project proceeds as planned, then the advantage that can be derived by Moorgate line users from modifying the scheme, and putting back in a 4 train per hour service to Moorgate, is only worth 266 hours in the morning peak period.

CONTROL SHEET

Project/Proposal Name: THAMESLINK 2000 ANNEX 3

Document Title: **Benefits Foregone Through the Retention of the Thameslink Moorgate Branch**

Client Contract/Project Number:

SDG Project/Proposal Number: 206307

ISSUE HISTORY

Issue No.	Date	Details
1	24/06/05	Preliminary Draft
2	15/07/05	Final Draft
4	10/05/05	Final

REVIEW

Originator: TJR

Other Contributors: RDI, LMM

Review By: Print: RDI

Sign: _____

DISTRIBUTION

Clients: SRA

Steer Davies Gleave: 206307 team

Annex 4: Network Rail's response to LTUC recommendations (2000)

Network Rail's response to LTUC recommendations (2000)

LTUC recommendations(2000) ²¹	Network Rail position (2005)
I. King's Cross Thameslink station	
5.3 Any closure consent should be made conditional upon SPMR being opened simultaneously with (or before) the closure	<p>Agreed: "Network Rail and the Thameslink Rail Limited will only be seeking to implement these closures if the TWA Order is made and the Thameslink 2000 project progresses to construction." Statement of Reasons, Introduction</p> <p>However an alternative possible timing for the closure of the Pentonville Road station is set out in SoR 1.4.3 and should be noted.</p>
5.11 Some hardship would be caused to passengers who currently enter/leave KXT on foot to/from places north-east, east and south east of the station	NR believe that any such inconvenience would be lessened by the frequent bus services which run between Pentonville Road and Euston Road in the vicinity of the new station
5.13 The hardship to passengers from easterly directions could be ameliorated by improvements to the ease, quality and perceived security of the street level walk from Pentonville Road. This should include rephasing the traffic lights at the Euston Road/Pentonville junction in favour of pedestrians, and suitable streetscape improvements.[To be funded by Railtrack and/or regeneration funds, and carried out by TfL, by the closure date	NR consider that this is primarily a matter for TfL and/or the local highway authority; nevertheless, NR will liaise with TfL and local authorities on the development of plans for the street environment in this area. Moreover, the removal of the station from Pentonville Rd. to Midland Rd. is likely to decrease significantly the number of pedestrian movements on Pentonville Road.
5.16 Some hardship would be caused to passengers who currently interchange between KXT and the Victoria or Piccadilly; the Victoria lines in particular.	Accepted that some inconvenience will be caused to these passengers, but others will have easier interchange and the walking routes will be less congested and of improved quality. Overall the benefits of the new station at St Pancras MR outweigh any disbenefits arising from the closure of the Pentonville Road station.
5.22 Limited hardship would be caused to passengers who currently interchange between KXT and the buses that serve Pentonville Road	Bus services serving Pentonville Road will be accessible from near the Midland Road station.

²¹ LTUC Report on closure proposals: May 2000

LTUC recommendations(2000) ²¹	Network Rail position (2005)
5.25 The hardship to bus passengers could be ameliorated if, when the bus arrangements in the area are replanned, buses were to stop as close to, and as conveniently for, the SPMR as possible. However, this should not be at the expense of the best overall service to bus passengers. [To be carried out by London Bus Services assisted (as required) by the relevant highway authority, by the closure date	.NR will raise this matter with Transport for London
5.32 A secure, monitored, well lit route (whether through the mall or along a street) between SPMR and Euston Road should be available at all times [To be procured as necessary by Railtrack, in partnership with Camden Council and Union Railways, by the closure date]	NR agree that this is desirable and will liaise with TfL on the matter.
5.40 The committee believes strongly that any closure consent should be made conditional upon the Pentonville Road access being retained as a secure, high quality entrance and exit to/from the Underground for day to day use, and upon suitable ticket office and/or staff accommodation being made available to LUL for operating the entrance.	The closure application involves only the national rail element at the Pentonville Road station. It is not intended that access to the LUL lines will be affected. Operation of the remaining LUL station will be a matter for LUL.
5.52 Any closure consent should be made conditional upon the station being mothballed for at least ten years after the closure date and the re-opening of the station being kept under review during that period in the light of demand changes and other circumstances.	NR does not consider that the re-opening of the KXT station is feasible once Thameslink 2000 services at 12 car lengths are operating at the Midland Road station. See SoR 5.1.5
5.61 Substantial hardship would be caused by the loss of through services during the 25 week blockade for building the SPMR box.	N/A
5.63 <i>relates to blockade</i>	N/A
5.65 <i>relates to blockade</i>	N/A
5.68 <i>relates to blockade</i>	N/A
5.69 <i>relates to blockade</i>	N/A
5.71 <i>relates to blockade</i>	N/A
5.73 <i>relates to blockade</i>	N/A
5.76 <i>relates to blockade</i>	N/A
5.77 <i>relates to blockade</i>	N/A
5.78 <i>relates to blockade</i>	N/A

LTUC recommendations(2000) ²¹	Network Rail position (2005)
5.80 relates to blockade	N/A
5.81 relates to blockade	N/A
5.83 relates to blockade	N/A
5.84 relates to blockade	N/A
5.86 Any closure consent should be made conditional on agreement being reached between LUL, Railtrack and the relevant train operators(s) regarding revised operational control arrangements and responsibilities	It is for LUL to decide upon the retention of the access to their network at Pentonville Road following closure of the Thameslink station; NR will liaise with LUL as appropriate on any operational implications.
5.88 Any closure consent should be made conditional upon the fare and ticket retailing requirements applying to KXT (and flows to/from KXT) immediately before the closure being transferred to SPMR thereafter, as if there had been no change of location	This is a matter for the appropriate TOC(s).
6.6 The current requirements for publicising closure proposals are inadequate and its regulators should consider how to improve them – or at least improve on the steps taken in practice.	Noted.
2 Blackfriars and London Bridge Stations	
6.8 Any consent to either closure proposal should be conditional upon the TWA powers being granted and on no changes to the proposal being required that were material to the possible effects of the closure	Agreed: “ <i>Network Rail and the Thameslink Rail Limited will only be seeking to implement these closures if the TWA Order is made and the Thameslink 2000 project progresses to construction.</i> ” Statement of Reasons, Introduction
6.22 Under the 24tph scenario hardship would be caused (by the closure of Blackfriars) to passengers going to/from the London Bridge corridor who would benefit from trains running between Blackfriars and London Bridge during disruption	The Thameslink 2000 proposals involve a significant increase in trains between London Bridge and Blackfriars.
6.23 In some circumstances this hardship would be ameliorated by having bi-directional signalling on the curve between Blackfriars Jn and Metropolitan Jn.	Present proposals include the severance of the Met. Spur (under minor closure procedures)
6.41 assumes less than 24tph	The Inspector has accepted the feasibility of running 24tph: “ <i>The evidence given has also led me to the conclusion that the consistent operation of the core at a throughput of 24tph would be achievable...</i> ” (Inspector’s report, para 27.3)

LTUC recommendations(2000) ²¹	Network Rail position (2005)
6.45 assumes less than 24tph	See above
6.46 assumes less than 24tph	See above
6.57 Hardship would be caused (by the closure of Blackfriars) to passengers whose trains could not call at Blackfriars during the work there.	Current construction assumptions (used for the 2004 ES) allow a period of not more than 4 weeks, when trains will not be able to stop at Blackfriars platforms. During this period trains would continue to run through to City Thameslink station.
6.58 The hardship would be ameliorated by planning in order to mitigate the disruption as far as reasonably possible. The planning should take place before the construction begins in order to avoid problems rather than treat them reactively once they happen. [To be carried out by Railtrack and the train and station operators concerned, at an early stage in the detailed planning of the works.]	Agreed. A management plan will be developed by Network Rail and the TOC(s) prior to commencement of works.
6.59 Any consent to the Blackfriars closure proposal should be made conditional on the Regulator being satisfied that an adequate strategy is in place for handling passengers who would be displaced from Blackfriars during the works. This strategy should particularly address passenger information, accessibility, personal security, staffing and ticketing issues, and should consider both the works period as a whole and the four week total closure.	Agreed. A management plan will be developed by Network Rail and the TOC(s) prior to commencement of works.
6.61 Hardship would be caused (by the closure of Blackfriars) to passengers who could not travel through Blackfriars during the works.	Blackfriars will not be subject to a blockade during the proposed works; during the period of the proposed closure (a duration of not more than 4 weeks) trains will run through to City Thameslink station
6.62 This hardship, particularly to passengers who require (or would be assisted by) step-free accessibility, would be ameliorated if replacement bus services were operated between appropriate fully accessible stations using fully accessible buses and with adequate staff assistance available. The route(s) should take into account the terminating arrangements for the trains. [To be procured by the train operators concerned throughout the blockade.]	NR do not consider that this measure would be needed as Blackfriars mainline station will continue to operate, except for a possible 4-week period during which trains would run through to City Thameslink station (which is fully compliant with DDA).
7.5 The current requirements for publicising closure proposals are inadequate and its regulators should consider how to improve them – or at least improve on the steps taken in practice.	Noted.
3 Farringdon – Moorgate	
8.13 Some hardship would be caused during the period	NR accepts that some inconvenience would be caused

LTUC recommendations(2000) ²¹	Network Rail position (2005)
from the withdrawal of Moorgate services to the start of the full Thameslink 2000 service, by virtue of passengers from Moorgate having to stand in the evening peak on very crowded Thameslink trains.	to passengers during this period. However under current construction assumptions this period will be significantly shorter than previously assumed.
8.20 If passenger levels on the LUL trains between Farringdon and Moorgate exceeded LUL's Planning Guideline Capacity, hardship would be caused to passengers on those trains by virtue of the heavily crowded conditions	Capacity exists on LUL for the passengers displaced as a result of this closure. It is not predicted that PGC will be exceeded.
8.23 Hardship would be caused at times when the LUL service between Farringdon and Moorgate was suspended for short periods by virtue of the level of crowding that would be experienced by passengers on the trains once the service resumed.	NR accepts that some inconvenience would be experienced by passengers during periods of operational perturbation and during the recovery periods; however this is no different from similar situations at numerous locations today.
8.34 Any closure consent should be made conditional upon the proposed design of Farringdon station having unreserved support from LUL for a planning period significantly beyond 2011	Studies are currently being undertaken to confirm that the design of Farringdon station will be able to cope satisfactorily with predicted passenger flows (at 2016 + 8%). LUL and NR are jointly sponsoring this work.
8.44 If demand is at or around the level of the Central Demand Forecast, hardship may be caused to any or all passengers using Farringdon station, by virtue of the level of crowding that would be experienced and the effects of managing that crowding.	NR considers that the station design is robust and the Inspector, in his report, concurred: " <i>In my opinion the capacity provided by the station design is adequate</i> " (7.1.3.2.). He went on to state (45.10.4) " <i>It appears to me from the extensive testing which has been undertaken that the degree of crowding would remain within tolerable limits. Apart from the use of stairs, which is a normal part of travel in London, the interchange would be over very short distances and quite convenient.</i> "
8.52 Hardship would be caused to passengers using Farringdon station by virtue of the level of crowding at that station that would frequently be caused by delays to the LUL service.	NR accepts that if the LUL service is delayed then inconvenience would be caused to passengers; however, see the Inspector's remarks at 7.1.3.2. and 45.10.4 and response to 8.23 above.
8.57 There is a substantial likelihood of hardship being caused to passengers using Farringdon station by virtue of the demand there exceeding the forecast by more than the station can adequately accommodate. The extent and timing of this hardship would depend upon the level and distribution of this additional demand, its timing and the flexibility of the station design	See responses to 8.44 and 8.52
8.59 The hardships identified above would be compounded if they occurred together	NR accepts that inconvenience would occur in this scenario.
8.62 Hardship would be caused, particularly to passengers with low – frequency services and to	This is a matter for the appropriate TOC

LTUC recommendations(2000) ²¹	Network Rail position (2005)
passengers with limited mobility, by the absence of seating at Farringdon station.	
8.63 Hardship would be caused if further rebuilding work were necessary at Farringdon when demand exceeded the ability of the station to cope with it. This is likely to occur. It would be greater hardship than if the work were to be carried out sooner, at the time of the proposed rebuilding.	No major rebuilding work at the existing Farringdon station after the completion of Thameslink 2000 works is forecast. The presently proposed Crossrail station at Farringdon is at a separate site.
8.75 The hardship caused by the conditions for passengers at Farringdon station would be substantially alleviated by the adoption of a more fundamental and robust redesign for the station. [To be carried out by Railtrack as a revision to the scheme design].	The station has been redesigned since the initial TWA application and more capacious interchange arrangements between LUL/Thameslink platforms introduced. The Inspector has recorded his satisfaction with the design (7.1.3.2.) <i>“In my opinion, the capacity provided by the station would be adequate.”</i>
8.88 Hardship will be caused by virtue of the increased journey time for passengers, particularly to commuters returning to the north in the evening peak	NR agree that a time penalty will be incurred by passengers transferring between LUL services and Thameslink services at Farringdon (see Annex 2 to the SoR); this is likely to be greater for commuters travelling northwards during the evening peak.
8.89 This hardship would be alleviated by the adoption of a more suitably robust and capacious design for the station, as considered above.	See response to 8.75
8.93 Any closure consent should be made conditional on no fares for any journey rising through the need to use the Underground rather than Thameslink to reach (or start from) Barbican or Moorgate	Under current fares arrangements the LUL services will be available at no extra cost to the passenger
8.94 Any closure consent should be made conditional on any current users of the Moorgate branch who originate from points north, and for whom City Thameslink, Blackfriars and London Bridge stations would be reasonable alternatives, being able to have their ticket prices to those stations protected (for a limited period) from any increase in fares to those stations, compared to fares to Barbican or Moorgate.	Not a matter for NR
8.102 Any closure consent should be made conditional on Farringdon station being rebuilt to a design that addresses, to the Regulator’s satisfaction, the hardships likely to be caused by the closure and the requirements of a railway designed for the future	See response to 8.75
8.105 Any closure consent should be made conditional on the vacated track bed remaining within the railway industry, for future transport use as necessary.	NR does not consider that the redundant trackbed will be suitable for any transport use in the foreseeable future.
9.9 Any closure consent should be made conditional on	Inspector’s report, para 27.3 states <i>“The evidence given</i>

LTUC recommendations(2000) ²¹	Network Rail position (2005)
the TWA Inspector being satisfied that the proposed 24tph service is likely to be achieved in practice.	<i>has also led me to the conclusion that the consistent operation of the core at a throughput of 24tph would be achievable...</i>
10.8 Hardship would be caused to the displaced Moorgate passengers between the closure date and the introduction of the Thameslink 2000 services, by virtue of having to interchange at Farringdon with construction work in progress, without the benefit of the improved facilities there, and without the benefit of the more comfortable Thameslink service by way of compensation.	See response to 8.13
10.9 Hardship would be caused to other users of Farringdon station between the closure date and the introduction of the Thameslink 2000 services, by virtue of having the displaced Moorgate passengers additionally using the station with construction work in progress without the benefit of the improved facilities there, and without the benefit of the more comfortable Thameslink service by way of compensation.	See response to 8.13
10.10 refers to StP blockade: N/A	
10.11 refers to StP blockade: N/A	
10.12 Any closure consent should be made conditional on the Regulator being satisfied that an adequate strategy is in place to manage passenger flows at Farringdon, and passengers who could usefully avoid the area, during the various stages of construction work and the different train service patterns at various stages. This strategy should in particular address passenger information, accessibility, personal security, staffing and ticketing issues	Agreed. A management plan will be developed by Network Rail and the TOC(s) prior to commencement of works.
12.5 The current requirements for publicising closure proposals are inadequate and its regulators should consider how to improve them – or at least improve on the steps taken in practice.	Noted.