



6 July 2009

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Dear Caroline

Thank you for your letter of 8 May. We have of course been in contact since on a number of issues, but I am sorry for the delay in responding formally to the various queries and information requests in your letter. I'm sure you will appreciate that the range of subjects covered in your letter has meant that it has taken a little while to assemble the information you requested. I can now respond as follows.

Station refurbishment programme

I attach two documents which set out the position in relation to the ex-Metronet stations programme, and the overall step-free access programme respectively.

The position with respect to Tube Lines' stations programme is that all stations will have been modernised or refurbished by mid-2010. Going forward, defining the scope of the programme is part of the Periodic Review process, but we propose to refurbish stations every ten to 15 years, as opposed to the seven and a half year cycle in the current contract, to ensure value for money overall.

Station capacity

I attach a summary of the scope and timescales for congestion relief and major upgrade station projects that are currently proposed.

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Sub-surface signalling

As you are aware, the upgrade of the sub-surface railway is a critical part of the overall Tube upgrade programme. New air-conditioned walk-through trains will be delivered from 2010 to 2014 and the full signalling upgrade will be complete by 2018. We hope to issue the tender for the signalling contract later this summer, with a view to confirming the appointment next year. At this stage in the project - which is on programme - it is too early to have identified the final cost but we are committed to working within the available funds. We are also applying a fresh approach to the supplier market that we believe will deliver value for money.

Further innovations

Our discussions with Tube Lines on the possibility of managing the Piccadilly line upgrade with a less intrusive closure programme are at an early stage, and are closely related to the Periodic Review process. The PPP contract does not provide for us to dictate such an approach, and we will to a great extent rely on the approach taken by Tube Lines in this regard.

The collapse of Metronet has given LU the opportunity to review requirements for the Bakerloo line upgrade including the need for more capacity and reduced energy consumption. The new trains are due to be delivered into service in 2020, so the project is at a very early stage.

Some features which have already been incorporated on other line upgrades will be developed for the Bakerloo line:

- Regenerative braking systems which save about 20-30% of the energy consumed as the train brakes
- Coasting at the earliest point after a faster train acceleration, which reduces energy consumption between stations and
- Steel-copper composite conductor rail which has a lower resistance to electric current than existing rail, and loses less energy through conduction

In addition, LU has commenced a feasibility study to explore concepts for a new Bakerloo line train design. Possible features could include on-board energy storage for regenerated energy, and more efficient auxiliaries. The train could be lighter than existing stock which would mean reduced energy consumption. More visible differences could be through gangways, allowing passengers to walk through the entire train, and some form of customer cooling mechanism, subject to finding a way of making this possible.

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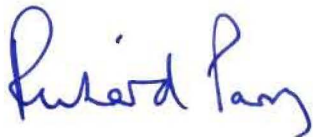
Overcrowding

I know that we have already provided some information on crowding to the Transport Committee, via the Scrutiny Manager, for your forthcoming scrutiny, some of which is reproduced in the agenda paper for this Wednesday's meeting.

The line upgrades will provide increases in capacity and reliability as shown in the attached document. As demand for Tube services is expected to continue to grow however, the impact on crowding will be smaller than the capacity increases delivered, and some sections will continue to be crowded. The works to deliver the upgrade programme are, we know, disruptive to passengers' journeys but the main impact of this will continue to be at weekends – we would always seek to ensure that we deliver the maximum available capacity at the busiest times.

Of course I will be attending the Transport Committee's meeting on 3 September, and will be happy to discuss these issues further then. In the meantime please do contact Melanie Couldrey, Corporate Communications Manager, on 020 7918 3904 or melanie.couldrey@tube.tfl.gov.uk, if you have any queries or need further information.

Yours sincerely

A handwritten signature in blue ink, appearing to read 'Richard Lang'.



London Underground Stations Programme

June 2009

The London Underground PPP contracts specified that each station on the Tube network should be upgraded during the first contract period i.e. by 2010. Upgrades are categorised as 'modernisations', 'enhanced refurbishments' or 'refurbishments' and the scope of each was defined in the PPP contracts.

As a result of Metronet's collapse, it was necessary to review the affordability of the Stations Programme which at the time of Metronet entering administration was already very late and significantly over- budget. It was agreed at that time that work would continue at stations where Metronet were already on site. Stations yet to start on site have been reprioritised according to the need for work and available funding.

Those deemed most urgent will be modernised or refurbished in the life of the 2009/10 – 2017/18 business plan. Those where there is a less urgent need for work will not get a full refurbishment or modernisation but will have work done where necessary to address critical repairs.

A refurbishment typically delivers improved CCTV coverage and lighting, enhanced PA and more Help Points, accessibility features such as tactile strips on platforms and stairs and an induction loop on the Help Points. Heritage features are retained and restored, where feasible and ambience is improved with re-surfacing of platforms and floors, and new cable management systems.

A station modernisation delivers all of the above and also includes new customer information indicators and signage and major structural repairs.

The current status of all the ex-Metronet stations is listed in this note.

All stations due to be modernised or refurbished by Tube Lines are on schedule to be completed by 2010 as required under the PPP Contract.

Station lists - 150 ex-Metronet stations

Completed stations (59)

Bayswater	Lancaster Gate	Ruislip Gardens
Becontree	Leyton	Ruislip Manor
Bethnal Green	Loughton	Shepherd's Bush
Bond Street	Maida Vale	Shepherd's Bush Market
Bow Road	North Harrow	Snaresbrook
Bromley-by-Bow	Northolt	South Ruislip
Chigwell	Northwick Park	South Woodford
Chiswick Park	Northwood	St. Paul's
Dagenham East	Northwood Hills	Stamford Brook
Dagenham Heathway	Perivale	Theydon Bois
Debden	Piccadilly Circus	Tower Hill
East Acton	Pinner	Turnham Green
Eastcote	Plaistow	Upminster Bridge
Elephant & Castle	Preston Road	Uxbridge
Elm Park	Putney Bridge	Walthamstow Central
Epping	Queensway	Watford
Fairlop	Ravenscourt Park	West Ruislip
Gloucester Road	Regent's Park	White City
Great Portland Street	Roding Valley	Woodford
Holborn	Ruislip	

On site stations (12)

Aldgate East	King's Cross St. Pancras	Oxford Circus
Brixton	Marble Arch	Southfields
Earl's Court	Mile End	Wanstead
Hainault	Notting Hill Gate	Warren St

Modernisation/Refurbishment to be delivered during the life of the current business plan (24)

Aldgate	Baker Street	Bank / Monument	Barbican
Chancery Lane	Charing Cross	Edgware Road (Cir.)	Embankment
Euston Square	High Street Kens.	Highbury & Islington	Holland Park
Ladbroke Grove	Leytonstone	Liverpool Street	Paddington*
Redbridge	Seven Sisters	Sloane Square	South Kensington
St James Park	Temple	Victoria*	

*including congestion relief scheme

Limited works (51)

Hammersmith (D&P)	Ealing Broadway	Marylebone
West Kensington	Upton Park	Hammersmith (H&C)
Blackhorse Road	Mansion House	Kilburn Park
Warwick Avenue	Tottenham Hale	Pimlico
East Ham	Westbourne Park	Stepney Green
Barons Court	Parsons Green	Lambeth North
Edgware Road (Bak)	Fulham Broadway	Hillingdon
West Acton	Goldhawk Road	Latimer Road
Royal Oak	West Harrow	Buckhurst Hill
Hornchurch	West Brompton	Hanger Lane
Upney	Wimbledon Park	Amersham
Chalfont & Latimer	Rickmansworth	Moor Park
Ickenham	Chorleywood	Croxley
Chesham	Barkingside	Grange Hill
Vauxhall	Rayners Lane	Harrow-on-the-Hill
North Acton	Moorgate	East Putney
Gants Hill	Greenford	Newbury Park

Stations in this category have funds allocated according to the need to preserve assets. In some incidences extensive work will be required, but the benefits will be delivered incrementally, not simultaneously as would have been the case for a refurbishment or modernisation. So for example a fire and communication system might be replaced in one year and the platforms resurfaced a few years later.

Addressed through alternative route (4)

Station	Work delivered through
Blackfriars	Thameslink Programme
Cannon Street	3 rd party development
Farringdon	Thameslink Programme
Whitechapel	Crossrail station project



London Underground step free access programme

July 2009

Existing step-free stations:

- 1 Acton Town (completed in October 2008)
- 2 Barking
- 3 Bermondsey
- 4 Brixton
- 5 Caledonian Rd
- 6 Canada Water
- 7 Canary Wharf
- 8 Canning Town
- 9 Chalfont & Latimer
- 10 Chesham
- 11 Chorleywood
- 12 Dagenham Heathway
- 13 Earls Court
- 14 East Ham
- 15 Elm Park
- 16 Epping
- 17 Finchley Central (completed in June 2008)
- 18 Fulham Broadway
- 19 Golders Green (completed in February 2009)
- 20 Hammersmith (District)
- 21 Hammersmith (H&C)
- 22 Harrow & Wealdstone
- 23 Heathrow T123
- 24 Heathrow T4
- 25 Heathrow T5
- 26 Hendon Central (completed in May 2008)
- 27 Hillingdon
- 28 Hounslow East
- 29 Hounslow West
- 30 Kensington Olympia
- 31 Kew Gardens
- 32 Kilburn
- 33 London Bridge
- 34 Morden
- 35 North Greenwich

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- 36 Oakwood (completed in May 2008)
- 37 Pinner (completed in July 2008)
- 38 Richmond
- 39 Roding Valley (completed in January 2009)
- 40 Southwark
- 41 Stanmore
- 42 Stratford
- 43 Sudbury Town
- 44 Tottenham Hale
- 45 Upminster
- 46 Upney
- 47 Uxbridge
- 48 Wembley Park
- 49 West Finchley
- 50 West Ham
- 51 Westminster
- 52 Willesden Junction
- 53 Wimbledon
- 54 Woodford
- 55 Wood Lane (completed in October 2008)
- 56 Woodside Park

Step-free in one direction:

- 1 Barkingside (Platform 1 EB)
 - 2 Borough (Platform 1 NB)
 - 3 Debden (Platform 1 NB)
 - 4 Liverpool Street (Platform 1, EB Circle, Metropolitan and H&C lines)
 - 5 Paddington (Platform 2, EB Circle and District lines)
 - 6 Rickmansworth (Platform 2 SB)
 - 7 Ruislip (Platform 2 EB, Metropolitan & Piccadilly lines)
 - 8 South Woodford (Platform 2 EB)
 - 9 Theydon Bois (EB platform 2)
 - 10 West Brompton (Platform 2 EB)
-

2010 Step-free schemes committed under the PPP Contracts:

- 1 Edgware
- 2 High Barnet

2010 Formet Metronet step-free schemes now being completed by LU:

- 1 Hainault
- 2 Ladbroke Grove

2010 Step-free schemes committed under the Tube Investment Programme:

- 1 Amersham
- 2 Greenford
- 3 King's Cross St Pancras
- 4 Kingsbury
- 5 Newbury Park
- 6 Osterley
- 7 Southfields (Olympic Deliverable)
- 8 West Kensington

Step-free schemes committed beyond 2010:

- 1 Green Park (Olympic Deliverable)
- 2 Blackfriars
- 3 Farringdon
- 4 Paddington H&C
- 5 Tottenham Court Road
- 6 Barbican (Crossrail)
- 7 Victoria
- 8 Whitechapel (Crossrail)
- 9 Bank
- 10 Bond Street

Partial step-free schemes (one direction) committed beyond 2010:

- 1 Euston Square (Westbound)
- 2 Cannon Street (Westbound)

Step-free schemes that have been deferred

- 1 Archway
- 2 Baker Street
- 3 Clapham South
- 4 East Putney
- 5 Euston Square
- 6 Finsbury Park*
- 7 Harrow-on-the-Hill
- 8 Highbury & Islington*
- 9 Kennington
- 10 Leyton
- 11 Liverpool Street
- 12 North Acton
- 13 Paddington (District/Circle/Bakerloo)

- 14 Queensway
- 15 Rayners Lane
- 16 Shepherd's Bush
- 17 South Kensington
- 18 Stockwell
- 19 Tooting Broadway
- 20 Tower Hill
- 21 Turnham Green
- 22 Vauxhall*
- 23 Waterloo
- 24 Wood Green

(* Expected to go ahead, but will not be completed until after the period of the current Business Plan)



Summary of station congestion relief projects

Improving stations is a core part of LU's programme to upgrade each Underground line. Unless our stations can cope with the increased passenger numbers that the line upgrades will enable, the benefits will not be fully realised.

Some stations need major work to increase their capacity and reduce overcrowding. Congestion relief schemes have been delivered or are planned at the following stations:

Wembley Park

The rebuilding of Wembley Park station was a flagship project delivered in the early stages of our programme of investment to transform the Tube. The project, which was completed in March 2006, increased the capacity of the station by 70% - ahead of the opening of the new Wembley Stadium in 2007.

Improvements to help with passenger flows on Stadium event days included a new extended ticket hall. Lifts were also installed to make the station step-free and the station was fully modernised with improvements to accessibility, safety and security and passenger information.

King's Cross St. Pancras

King's Cross St. Pancras is the Tube's busiest station. In 2006, LU completed the Western ticket hall project, providing 100% more ticket hall capacity ahead of the transfer of Eurostar services to St. Pancras and step-free access to the Metropolitan, Hammersmith & City and Circle lines.

In addition, another new ticket hall (the Northern ticket hall) is being delivered for completion at the end of 2009 catering for the anticipated further 25% increase in demand, and step free access will be provided to the deep level lines.

Covent Garden

In December 2007, London Underground completed a 14 month schedule of work to provide much needed additional space at Covent Garden station. Further capacity has been created within the station to reduce crowding – particularly at busy weekends.

The project delivered a larger ticket hall – more capacity and improved circulation, 5 new ticket gates on the 'exit' side of the station – almost double the original number, allowing quicker customer movement and reducing crowding, a new station supervisor's office – improving safety and security.

A modernisation programme is now underway at the station.

Tottenham Court Road

Tottenham Court Road station, served by the Central and Northern lines, is heavily congested - particularly at peak periods. Currently around 125,000 passengers use the station every day and this is predicted to rise to over 200,000 once Crossrail is built.

Essential improvements are planned at this station which will increase its capacity by over 200%, with a new ticket hall around 6 times the current size.

Five new lifts will be installed so that the station is fully accessible, from street to platform. General improvements will also be made to increase the quality of access and interchange at the station, through new entrances and passageways and additional escalators.

Demolition has now started and construction will continue to late 2016.

Paddington

In conjunction with Network Rail and Crossrail, we plan to tackle congestion on the Hammersmith & City (H&C) line platforms. This will enable us to handle the increase in passengers expected with the new development in the area.

The improvements include an entirely refurbished H&C Tube station, a new station entrance from the Paddington Basin, an expanded station concourse including a new ticket office and gateline, three stairways from the H&C platforms to the concourse, a new taxi facility to the north of the station and step-free access from the H&C platforms to the street and the National Rail station. Work is due to start this autumn.

Stratford

A package of improvements is being implemented at Stratford in time for the Olympic and Paralympic Games which will provide a long-term legacy benefit, as well as additional temporary measures to meet the specific needs of the Games.

The work planned for the Tube station is part of a larger scheme which includes works related to the Stratford City Development and the proposed DLR extension to Stratford International station.

Many of these improvements are already in progress and a new westbound Central line platform has been built which, along with the current westbound platform, will make it quicker and easier for spectators travelling back to central London and other destinations after attending events at the Games. A new mezzanine level is also being added to facilitate access to the new platform. As part of the Stratford City development, a new Northern ticket Hall is being built which will serve customers wishing to use rail transport at Stratford station from the shopping centre and Games park.

Victoria

Over 80 million customers use Victoria Underground station each year, making Victoria one of central London's busiest Tube stations. Currently the station has to close its gates on an almost daily basis for short periods during the peak to avoid overcrowding. With a predicted increase in demand to around 100 million customers each year in 2016, the upgrade of the station is crucial.

The station upgrade will reduce congestion at the Underground station, provide extra capacity, reduce journey times and improve access, including new lift access to all platforms.

The proposals include a new ticket hall (Northern) at the junction of Bressenden Place and Victoria Street, an enlarged existing Victoria line ticket hall (Southern), nine new escalators and seven new lifts.

A Transport & Works Act Order application was submitted in 2007 and a Public Inquiry ended in January 2009. A decision is expected to be made by the Secretary of State in Autumn 2009. The programme of construction will take approximately seven years.

Bond Street

The station upgrade will provide congestion relief and accessibility improvements to the Central and Jubilee lines at what is a busy West End interchange. Significant improvements in capacity will be provided throughout the station, in particular to and from the Jubilee line platforms. The work will support an interchange to the Crossrail station and will provide a key central London step-free location. The project is due for completion by 2016.

Bank

LU is working with a local developer to build a new entrance to the station at Walbrook Square, primarily benefiting Waterloo & City line customers. LU is also developing a scheme over the next decade which will provide much needed congestion relief to the Northern line platforms and increase capacity overall at this complex station. We are currently also refurbishing replacing escalators which, while causing disruption in the short-term, is vital to ensuring that the station can cope with future demand, by reducing the risk of failure and possible closures of the station.

Highbury & Islington, Finsbury Park and Vauxhall

The three stations are important interchanges with National Rail and/or London Overground. Work on these congestion relief schemes will start during the Plan period and are due to be completed by 2021.

Possible future schemes

There are other stations around the LU network where crowding is an issue, and we continue to look at long term solutions for reducing congestion at these stations. One example is Holborn station. However, funding constraints mean that there are no confirmed plans in the current Business Plan.

Staff at all LU stations have well established control measures to manage overcrowding and allow stations to operate safely. These typically involve holding passengers behind the ticket gates or at station entrances for short periods.



London Underground Line Upgrades

Victoria line upgrade

Contract completion date: August 2013

Current projected completion date: May 2012

Delivers:

- 47 new trains - a larger fleet of larger trains
- New 'distance-to-go' signalling system
- Track upgrades
- Depot improvements
- New service control centre
- 19% more capacity¹
- Journey time reduction of 16%

Jubilee line upgrade

Contract completion date: December 2009

Current projected completion date: December 2009 (but see below)

Delivers:

- Additional 7th car for each train (already delivered in January 2006)
- New 'track based train control' signalling system
- Automatic train operation
- Track upgrades
- 33% more capacity (additional to 17% increase already delivered by 7th car)
- Journey time reduction of 22%

¹ All capacity increase figures quoted are increase in peak capacity into central London from 2006.

Northern line upgrade

Contract completion date: January 2012

Current projected completion date: January 2012

Delivers:

- New 'track based train control' signalling system
- Automatic train operation
- Track upgrades
- 20% more capacity
- Journey time reduction of 18%

Sub-Surface lines upgrade

Contract completion date: stage 1 – 2015; stage 2 - 2018

Current projected completion date: stage 1 – 2015; stage 2 - 2018

Delivers:

- 191 new air-conditioned trains – 58 for Metropolitan line between 2010 and 2011; 53 for Circle and Hammersmith & City (and Edgware Road – Wimbledon on District) between 2011 and 2013; 80 for District line between 2013 and 2015
- New signalling system
- Track and power upgrades
- New depots
- New single control centre for all lines
- 47-49% more capacity
- Journey time reduction of 13-17%

Piccadilly line Upgrade

Contract completion date: 2014

Current projected completion date: 2014

Delivers:

- New trains
- New signalling system
- Track and depot upgrades
- 25% more capacity
- Journey time reduction of 19%

Bakerloo line Upgrade

Contract completion date: 2020

Current projected completion date: 2022

Delivers:

- New trains (by 2020)
- New signalling system (by 2022)
- 40% more capacity