

**TRANSPORT FOR LONDON  
FINANCE AND POLICY COMMITTEE**

**SUBJECT: TfL INVESTMENT PROGRAMME REPORT –  
FIRST QUARTER 2011/12**

**DATE: 15 SEPTEMBER 2011**

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**1 PURPOSE AND DECISION REQUIRED**

- 1.1 The Investment Programme report for the first quarter of 2011/12 (1 April – 25 June 2011) is attached to inform the Committee of Transport for London's Investment Programme performance.
- 1.2 The report will be considered by the Board at its meeting on 21 September 2011.

**2 RECOMMENDATION**

- 2.1 The Committee is asked to NOTE this report.

**3 CONTACT**

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# Investment Programme Report

First Quarter 2011/12

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# Transport for London

## Investment Programme Report

First Quarter, 2011/12 (1 April 2011 – 25 June 2011)

### I. Programme Highlights

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*The key highlights from the first quarter of 2011/12 were:*

- North London Railway Infrastructure Project – project completion
- DLR Three-Car East Route – operational capacity available
- Jubilee Line Upgrade – J5 section commissioned and revenue service commenced
- Track Renewal Programme – Bakerloo, Central and Victoria lines 1,500 metres of track reballast and replacement achieved
- Sub Surface Railway Upgrade, Automatic Train Control – contractor appointed
- Sub Surface Railway Upgrade – Metropolitan line enabled for use by new S-Stock
- Bank Walbrook Square – concept design approved
- Cable Car – main contract awarded

*Post quarter events include:*

- DLR Stratford International extension – service operational
- Cycle Hire – phase I construction (400 docking stations) complete
- Ten Cycle Superhighways – phase I (additional two routes) completed

Cover picture:

In Quarter I the capacity to operate three-car services on the DLR East Route was delivered into service. The project included upgrade works to stations and infrastructure along the length of the East Route to enable three-car operation.

## 2. Projects (over £50m) and Programmes (over £10m per annum)

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TfL's Investment Programme contains a range of programmes and projects over £50m, in addition to a multitude of smaller activities. These are delivered by TfL directly, through partners in the London boroughs, or through long-term partnerships with the private sector such as Private Finance Initiatives (PFI).

This main body of this report covers discrete projects with a total cost greater than £50m and programmes spending over £10m per annum. For each project, key milestones are listed with a forecast date compared against the March 2011 baseline. If appropriate, milestones listed as deliverables for the year in the 2011/12 Budget document are included.

Committed schemes and milestones listed in Annex B of the 2010 Spending Review funding settlement letter are included in this report. The Deep Tube Upgrade programme will be included after feasibility works are completed.

The milestones contained in Annex B are identified in the project pages with the note '(Annex B: date)' listed after the description.

### Key to RAG status:

| Status | Discrete Projects          | Annualised Programmes           |
|--------|----------------------------|---------------------------------|
| ●      | On time or early           | 100 per cent of target achieved |
| ▲      | Between 1 and 89 days late | >75 per cent of target achieved |
| ■      | Greater than 90 days late  | <75 per cent of target achieved |

This report focuses on the delivery of investment projects. For discussion on wider financial performance, see the Quarter 1 Operational and Financial Report.

The estimated final cost (EFC) of some of the projects are not included (marked as \*) for reasons of commercial confidentiality.

## London Underground

### Sub-Surface Railway Upgrade

|                               |        |
|-------------------------------|--------|
| Spend to end Q1<br>2011/12 £m | EFC £m |
| 1477.8                        | 4225.2 |

| Rolling Stock  | Current Plan Date | Actual/Forecast Date | RAG       |
|--|-------------------|----------------------|-----------|
| Trains - 42 S8 trains available for passenger service  | 31/03/2012        | 31/03/2012           | ●         |
| Roll out of new air-conditioned trains on Metropolitan line complete ( <b>Annex B:2013</b> )                   | 31/12/2013        | 31/12/2013           | ●         |
| Roll out of new air-conditioned trains on Circle and Hammersmith & City lines complete ( <b>Annex B:2014</b> ) | 31/12/2014        | 31/12/2014           | ●         |
| Roll out of new air-conditioned trains on District lines complete ( <b>Annex B:2016</b> )                      | 31/12/2016        | 31/12/2016           | ●         |
| Automatic Train Control (ATC)  | Current Plan Date | Actual/Forecast Date | RAG       |
| Complete Service Control Centre Building   | 23/07/2011        | 23/07/2011           | Completed |
| ATC – Service Control Centre building available for ATC contractor   | 12/11/2011        | 12/11/2011           | ●         |
| ATC - Programme baseline complete  | 12/11/2011        | 12/11/2011           | ●         |
| ATC - Concept design approved (Gate A)   | 12/11/2011        | 12/11/2011           | ●         |
| ATC - Old Dalby Test Track and S8 Train Available  | 10/12/2011        | 10/12/2011           | ●         |
| ATC - Completion of End State Track Layout   | 31/12/2018        | 31/12/2018           | ●         |
| Depots   | Current Plan Date | Actual/Forecast Date | RAG       |
| Neasden: New Lifting and Maintenance Facility Piling complete  | 17/09/2011        | 17/09/2011           | ●         |
| Neasden: Signalling main commissioning complete  | 15/10/2011        | 15/10/2011           | ●         |
| Ealing Common and Upminster Depots - Approval to issue design and build contracts                              | 12/11/2011        | 12/11/2011           | ●         |

## London Underground

| Hammersmith Depot - Phase C1.3 to support Timetable and Stabling Requirement complete         | 20/08/2011        | 20/08/2011           | ●         |
|---|-------------------|----------------------|-----------|
| Hammersmith Depot – Phase C1.4 to support Timetable and Stabling Requirement complete         | 11/12/2011        | 11/12/2011           | ●         |
| Neasden Depot Phase A complete  | 14/11/2012        | 14/11/2012           | ●         |
| Infrastructure  | Current Plan Date | Actual/Forecast Date | RAG       |
| Metropolitan line enabled for use by S8 Stock   | 31/03/2011        | 23/05/2011           | Completed |
| Infrastructure Ready for Route Clearance – Edgware Road – Notting Hill Gate                   | 25/06/2011        | 15/06/2011           | Completed |
| Infrastructure Ready for Route Clearance - Paddington - Hammersmith                           | 25/06/2011        | 15/06/2011           | Completed |
| Infrastructure Ready for Route Clearance - Baker Street-Aldgate                               | 23/07/2011        | 20/05/2011           | Completed |
| Infrastructure Ready for Integration Testing - Baker Street-Aldgate                           | 03/03/2012        | 03/03/2012           | ●         |
| Infrastructure Ready for Route Clearance - Whitechapel - Barking                              | 20/08/2011        | 20/08/2011           | ●         |
| Infrastructure Ready for Integration Testing – Edgware Road – Notting Hill Gate               | 03/03/2012        | 03/03/2012           | ●         |
| Infrastructure Ready for Integration Testing - Paddington - Hammersmith                       | 31/03/2012        | 31/03/2012           | ●         |
| All Metropolitan line Assets Handed Over to Maintenance (excluding Depots, Sidings and Power) | 08/01/2011        | 31/05/2012           | ■         |
| Edgware Road Signalling Mods for S7 Complete  | 04/02/2012        | 04/02/2012           | ●         |
| Management  | Current Plan Date | Actual/Forecast Date | RAG       |
| Full signalling upgrade across the SSR network complete                                       | 31/12/2018        | 31/12/2018           | ●         |
| SSR lines power works complete; SSR upgrade complete delivering 33% capacity increase         | 31/12/2018        | 31/12/2018           | ●         |



## London Underground

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The Sub-Surface Railway network (consisting of the Circle, District, Hammersmith & City and Metropolitan lines) upgrades will provide new air-conditioned rolling stock, signalling and a new control centre, to increase capacity and reduce journey times. The programme is scheduled to complete by 2018.

### Rolling Stock

The removal of 'A' Stock trains from service commenced during the quarter.

At the time of writing, 10 eight-carriage S-Stock trains are available for service in London, providing peak and off-peak services along the full length of the Metropolitan line. Further S-Stock trains are undergoing testing, including demonstration of 1,000km of fault-free running at the test track. The Hammersmith train simulator is available for use for operator training.

### Automatic Train Control

Following a rigorous tendering process, the ATC Contract was awarded to Bombardier Transportation UK (BTUK) and its submitted contractual schedule has been accepted by the ATC programme. The ATC team and BTUK have relocated to Sub-Surface Upgrade Programme (SUP) offices to aid efficiency and collaboration.

The survey and correlation framework contract has also been awarded.

### Depots

The Neasden Depot Upgrade contract Deed of Variation has been agreed for the construction of the new lifting and maintenance facility.

The Ealing and Upminster tender evaluations have been completed.

The Upminster simulator ground works are now complete ready for receipt of modular buildings (which have been delivered post quarter end).

### Infrastructure

A wide variety of infrastructure works are underway on the Hammersmith & City, Circle and District lines to support the introduction of the new longer trains. In preparation for the migration of trains, Lillie Bridge Depot has been modified to provide train stabling.

The original plan included all Metropolitan line Assets to be handed over to the Asset Performance Directorate (into maintenance) prior to commencement of the running of the new S stock trains. This was amended to ensure all essential assets were handed over, which was achieved. The remaining non-essential assets have been de-prioritised and, as a result, the milestone is currently forecast to be completed in May 2012.

Post quarter update:

Hammersmith Depot - Phase C1.3 to support Timetable and Stabling – achieved 9 July 2011

Infrastructure Ready for Route Clearance - Whitechapel – Barking – achieved 20 August 2011

### SSR Major Power Works (Signalling)

| Spend to end Q1<br>2011/12 £m | EFC £m |
|-------------------------------|--------|
| 1.2                           | 48.1   |

This project will provide the main power supplies for the Sub-Surface Railway signalling (local distribution of signalling power is covered elsewhere).

The first joint meeting with Bombardier and the SUP team has provided much greater clarity of early requirements and much better value for money solutions for two out of five early sites.

## London Underground

This will lead to a re-phasing of the original draft programme, but power will be available well in advance of the "need by" dates.

### SSR Major Power Works (Traction)

| Spend to end Q1<br>2011/12 £m | EFC £m |
|-------------------------------|--------|
| 213.5                         | *      |

| Milestones  | Current Plan Date | Actual/Forecast Date | RAG |
|---|-------------------|----------------------|-----|
| SSR Power Upgrade Work Package 4 - delivery of switchgear to site Edgware Road  | 20/08/2011        | 03/08/2011           | ●   |
| Package 1 - Hammersmith Depot Power capacity to commence stabling available   | 01/11/2011        | 16/09/2011           | ●   |
| Power to support 53 S8 and three S7C trains in service available  | 25/01/2012        | 16/12/2011           | ●   |
| SSR Power Upgrade Work Package 2 - first sub-station in beneficial use  | 04/02/2012        | 06/01/2012           | ●   |
| Package 1 - Metropolitan line Power capacity to support full S8 train fleet in service available  | 29/02/2012        | 13/02/2012           | ●   |
| SSR Power Upgrade Work Package 1 - all Metropolitan line sub-stations required to support the introduction of S8 trains in beneficial use | 31/03/2012        | 01/03/2012           | ●   |
| SSR Power Upgrade Package 6- 132kv feed from St Johns Wood to Lisson Street, completion of excavation                                     | 31/03/2012        | 23/12/2011           | ●   |
| SSR Power Upgrade Work - package 3 contract award   | 31/03/2012        | 07/02/2012           | ●   |

The power system upgrade programme will deliver the additional power capacity that is required to support the line upgrades.

Good or satisfactory progress is being made on all work packages. All key preparations are in place for the planned capacity increase to 32xS8 trains in late July. All power-on dates for the SSR Power Upgrade are currently forecasted to be achieved. Good progress is being made towards resolving the cost challenges on Package 1A (sites on Metropolitan line North of Baker Street).

Post quarter update: Power Upgrade Work Package 4 - Delivery of switchgear to site Edgware Road achieved 1 August 2011.

## London Underground

### Victoria line Upgrade Programme

| Spend to end Q1<br>2011/12 £m | EFC £m |
|-------------------------------|--------|
| 940.5                         | 1027.5 |

| Milestones   | Current Plan Date | Actual/Forecast Date | RAG       |
|--|-------------------|----------------------|-----------|
| Start to control Victoria line operations from the new service control centre (VD) | 20/08/2011        | 19/04/2011           | Completed |
| 40 production trains accepted for service  | 20/08/2011        | 26/06/2011           | Completed |
| Asset replacement migration start  | 20/08/2011        | 27/05/2011           | Completed |
| Full service 09TS operational under DTG-R and new SCC (V4.0 - JTC1)                | 15/10/2011        | 23/09/2011           | ●         |
| All production trains accepted for service   | 07/01/2012        | 20/09/2011           | ●         |
| Asset replacement migration stages complete  | 03/03/2012        | 03/03/2012           | ●         |
| Demonstration of line upgrade capability (V5.0 - JTC2)                             | 26/04/2012        | 26/04/2012           | ●         |
| Victoria line upgrade programme completion (V6.0) ( <b>Annex B:2013</b> )          | 07/04/2013        | 07/04/2013           | ●         |

The Victoria line upgrade includes new rolling stock, signalling, control equipment, depot and track works. The programme remains on target and budget to complete ahead of the contractual completion date of August 2013. Fleet production and system reliability remain the primary focus.

#### Rolling Stock

A further seven 09 Stock trains were accepted for service on the Victoria line in the quarter. The milestone to have 40 production trains accepted into service was achieved ahead of plan on 26 June 2011. Delivery of the final new train remains on schedule for September 2011.

#### Signals and Operations

System reliability continues to meet targets in line with fleet roll out. Signalling Control system Release 2 and Distance To Go radio software Release 8 were commissioned into use in the quarter.

The two final level access platform humps will be installed early in the next quarter to achieve full compliance with Rail Vehicle Accessibility Regulations.

## London Underground

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### Underground General Renewals

| Spend to end Q1<br>2011/12 £m | EFC £m |
|-------------------------------|--------|
| 113.0                         | 291.1  |

| Milestones  | Current Plan Date | Actual/Forecast Date | RAG       |
|---|-------------------|----------------------|-----------|
| Central line Train Refresh - start on site  | 23/07/2011        | 17/05/2011           | Completed |
| Tunnel Cleaning Train - concept approval<br>for Tunnel Cleaning Train                                     | 12/11/2011        | 17/10/2011           | ●         |
| Tranche 2 - Depot Security Enhancement<br>(Central line) - contract award (Triangle<br>and Parsons Green) | 08/11/2011        | 13/09/2011           | ●         |

The Central line Bogie Modifications project was instigated following the Chancery Lane incident, to address the issues identified and comprises the re-design, manufacture and fitting of 1,420 new bogie assemblies to the entire Central line fleet.

#### Bogie Modifications

The manufacture and delivery of the new bogie frames is complete. The train lift programme is ongoing to complete the fitting.

#### 92 Tube Stock Refresh

The 92 tube stock (Central line trains) train refresh commenced on target and saw the first two trains complete to plan.

#### New Tunnel Cleaning Train

The new Tunnel Cleaning Train Motor Power Unit tenders have been returned and the evaluation complete with contract award due next quarter.

#### Battery Locomotives

The Battery locomotive life extension project continues on schedule and work has commenced on the first two prototype locomotives.

## London Underground

### Victoria Station Upgrade

| Spend to end Q1<br>2011/12 £m | EFC £m |
|-------------------------------|--------|
| 130.1                         | 582.0  |

| Milestones   | Current Plan Date | Actual/Forecast Date | RAG       |
|--|-------------------|----------------------|-----------|
| Primary Traffic Management stage 1 commences [Allington Street (East link) closed] | 23/07/2011        | 03/05/2011           | Completed |
| Elliott House demolition starts  | 20/08/2011        | 16/05/2011           | Completed |
| Commence widening of Network Rail to LUL Ticket Hall stairs (Sussex Stairs)        | 31/03/2012        | 09/01/2012           | ●         |
| Ground Treatment Complete  | 11/11/2014        | 19/08/2014           | ●         |
| Hand back North Ticket Hall worksites to Land Securities                           | 23/10/2016        | 29/07/2016           | ●         |
| Commence South Ticket Hall main works  | 12/11/2012        | 17/09/2012           | ●         |
| Complete North Ticket Hall piling  | 06/12/2013        | 11/10/2013           | ●         |
| Delivery into service ( <b>Annex B: 2018</b> )                                     | 04/06/2018        | 12/02/2018           | ●         |

This project will provide a significant increase in passenger circulation space in key congested areas of the station, and step-free access from street to platform for the Victoria line and District and Circle lines.

The Traffic Management milestone was achieved ahead of target during the quarter. The design continues to programme. The site hoardings for the north demolition site have been erected as planned, and jet grouting preparation works have commenced. A significant amount of asbestos has been discovered in Elliott House (the building is to be demolished) which could lead to programme delay or increased cost. The project team is working closely with the contractor to minimise programme impact and cost escalation. Sub-contracts have been awarded to Schindler (Lifts and escalators), Atkins (communications), and Kellers (jet grouting) by the main contractor Vinci Bam Nuttall. Tenders have been returned for the switch room civils works.

## London Underground

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### Green Park Station Upgrade

| Spend to end Q1<br>2011/12 £m | EFC £m |
|-------------------------------|--------|
| 45.0                          | 47.9   |

| Milestones   | Current Plan Date | Actual/Forecast Date | RAG       |
|--|-------------------|----------------------|-----------|
| On-site station staff training commences (Train020)  | 21/05/2011        | 19/05/2011           | Completed |
| Bring into use step-free access works                | 12/11/2011        | 01/09/2011           | ●         |
| West Head House - re-open stair 1607                 | 16/12/2011        | 17/11/2011           | ●         |
| Site works complete - south demobilisation completed | 31/03/2012        | 23/02/2012           | ●         |
| Finish on site snagging complete                     | 22/05/2012        | 23/04/2012           | ●         |

This project provides step-free access at Green Park station, to provide a key interchange for mobility impaired passengers travelling to 2012 Games events using the Underground. The programme is ahead of the targeted Games delivery date of December 2011.

The project is forecast to be brought into use early in September. Hard landscaping of the site has commenced. The hoardings have been removed along Queens Walk, temporary generators have been removed and the cabins repositioned. The sixth lift training session for station staff has been completed and lifts 1 and 2 have been returned to service on plan. Street level paving is proceeding ahead of plan. The cladding of West Head House has been completed and the scaffold has been struck.

## London Underground

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### *Paddington Station Upgrade*

| Spend to end Q1<br>2011/12 £m | EFC £m |
|-------------------------------|--------|
| 19.9                          | *      |

| Milestones   | Current Plan Date | Actual/Forecast Date | RAG |
|--|-------------------|----------------------|-----|
| Issue Invitation to Tender for final fit out                 | 17/09/2011        | 21/07/2011           | ●   |
| Prestige gateline Installed                                  | 03/03/2012        | 13/02/2012           | ●   |
| LU Start on Site - station fit out final scheme              | 28/05/2012        | 05/04/2012           | ●   |
| Final fit out brought into use (practical completion)        | 28/05/2013        | 22/03/2013           | ●   |
| Acceptance of Mandatory Asset Information deliverables by LU | 06/08/2013        | 06/06/2013           | ●   |
| LU fit out work complete ( <b>Annex B:2014</b> )             | 01/11/2014        | 23/04/2013           | ●   |

Paddington (Hammersmith & City line) station is one of LU's top priorities for congestion relief because of demand growth associated with local area redevelopment and the Sub-Surface Railway upgrade. The project seeks to deliver congestion relief and step-free access benefits to ensure the continued safe operation of the station.

Carrillion has submitted an accelerated (recovery) programme which focuses on achieving the critical Crossrail taxi-ramp opening date, but with limited effect on the programme for LU works.

## London Underground

### Tottenham Court Road Station Upgrade

| Spend to end Q1<br>2011/12 £m | EFC £m |
|-------------------------------|--------|
| 181.3                         | 478.2  |

| Milestones   | Current Plan Date | Actual/Forecast Date | RAG       |
|--|-------------------|----------------------|-----------|
| Commence Northern line platforms and passageways closure             | 23/07/2011        | 02/04/2011           | Completed |
| Complete construction of diaphragm walling for Goslett Yard main box | 20/08/2011        | 06/05/2011           | Completed |
| Completion of jacking works to Escalator 3                           | 12/11/2011        | 30/06/2011           | ●         |
| Completion of Goslett Yard box                                       | 30/09/2013        | 28/06/2013           | ●         |
| Completion of Phase 1 (partial opening of the new plaza ticket hall) | 31/03/2015        | 09/02/2015           | ●         |
| Completion of the project ( <b>Annex B:2016</b> )                    | 31/12/2016        | 29/12/2016           | ●         |

The congestion relief scheme includes an upgraded and enlarged ticket hall, three new entrances, additional escalator access to the Northern line platforms, improved circulation space, step-free access throughout and an interchange with Crossrail.

From 2 April 2011 for a period of eight months, Northern line services will not stop at Tottenham Court Road to allow essential preparatory and major structural works to be completed at the station.

40 per cent of the Northern line platform tunnel rings have been completed. The Falconberg Court Shaft has been excavated to its full depth and the base slab completed. The Northern line Escalator box excavation is down to the sixth layer of propping. Escalator 3 has now been returned to service. At Goslett Yard, the first six of eleven plunge columns (the largest installed in the UK) and hard piling for the escalator decline have been completed on plan.

Post quarter update: Completion of Jacking works to Escalator 3 achieved 30 June 2011.



## London Underground

### ***Bond Street Station Upgrade***

| Spend to end Q1<br>2011/12 £m | EFC £m |
|-------------------------------|--------|
| 79.7                          | 282.2  |

| Milestones   | Current Plan Date | Actual/Forecast Date | RAG       |
|--|-------------------|----------------------|-----------|
| Contract access milestone Escalators 1 and 2                 | 20/08/2011        | 03/06/2011           | Completed |
| Start structural demolition                                  | 04/02/2012        | 15/11/2011           | ●         |
| Complete Oxford Street water main diversion works            | 04/02/2012        | 09/12/2011           | ●         |
| Demolition complete  | 25/09/2012        | 24/07/2012           | ●         |
| Start of main tunnelling operations ( <b>Annex B: 2013</b> ) | 15/07/2013        | 02/04/2013           | ●         |
| Tunnelling set up decommissioned                             | 28/09/2015        | 12/06/2015           | ●         |
| Practical completion ( <b>Annex B: 2017</b> )                | 28/04/2017        | 03/03/2017           | ●         |

Bond Street station is a key interchange between the Jubilee and Central lines. Long term demand and congestion are forecast to increase further as a result of growth in employment and leisure travel and the completion of Crossrail in 2018. The scheme provides:

- two additional escalators from the interchange level to the Jubilee line;
- a low-level interchange route between the Central and Jubilee lines;
- a new step-free entrance and ticket hall on Marylebone Lane;
- four new lifts, allowing step-free access to both Central and Jubilee line platforms, interchange and street levels; and
- a step-free route to Crossrail.

Escalator 1 and 2 removal works have commenced in line with programme. The 21 inch water main on Oxford Street has been successfully re-lined and returned to service. Exit C has now been closed until delivery of the station upgrade, where it will form part of the access route into the new Marylebone Lane ticket hall. The reduced level dig of 2 Stratford Place has been completed.

## London Underground

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### Bank Walbrook Square

| Spend to end Q1<br>2011/12 £m | EFC £m |
|-------------------------------|--------|
| 12.4                          | *      |

| Milestones                                      | Current Plan Date | Actual/Forecast Date | RAG       |
|---|-------------------|----------------------|-----------|
| Design concept approved                         | 30/04/2011        | 04/04/2011           | Completed |
| Delivery into service ( <b>Annex B: 2015</b> )# | 31/12/2015        | 23/12/2015           | ●         |

# The original Annex B milestone stated 2014 in error, this has now been replaced by a 2015 plan date

The Bank Walbrook Square project will provide easier access to streets south and south-west of the station, reduce congestion on the Waterloo & City line platforms, and provide step-free access to the Waterloo & City line. LU is making a fixed contribution to the funding of the construction of the station box shell, which will be delivered by the developer. LU will fit out the station box to complete the new entrance.

The original developer, Legal and General, has entered into an agreement with a new developer for the site. The Deed of Covenant for the substitution of Bloomberg (previously referred to as Walbrook Square Limited) as parent guarantor is being engrossed.

The Bloomberg over-site development is undergoing further re-design and LU's station box design will be reviewed in tandem. While this is likely to have a programme impact, the impact on the project end date remains uncertain as LU does not yet have visibility of Bloomberg's detailed construction schedule.

## London Underground

### Bank Station Upgrade

| Spend to end Q1<br>2011/12 £m | EFC £m |
|-------------------------------|--------|
| 8.2                           | *      |

| Milestones  | Current Plan Date | Actual/Forecast Date | RAG |
|---|-------------------|----------------------|-----|
| RIBA Stage D general arrangement scheme layout freeze | 04/02/2012        | 12/12/2011           | ●   |
| RIBA D Design Accepted - phase complete               | 04/10/2012        | 08/08/2012           | ●   |
| Transport Works Act Order - grant of powers           | 12/11/2014        | 20/08/2014           | ●   |
| Start on site   | 21/07/2015        | 27/04/2015           | ●   |
| Ticket hall delivery into service                     | 14/09/2021        | 22/06/2021           | ●   |
| Beneficial use ( <b>Annex B: 2021</b> )               | 31/12/2021        | 20/12/2021           | ●   |

The Bank Northern line congestion relief project will relieve current and expected congestion in Bank station. By mitigating increasingly frequent congestion of the Northern line/DLR area, station closures will be reduced.

Parliamentary Agents have been appointed for the Transport Works Act (TWA) process and fortnightly TWA and Consents Strategy progress meetings are now underway, providing a strategic forum for all key delivery stakeholders. The Corporation of London has advised of their intention to issue a letter to the Commissioner confirming their support for the scheme. The scheme design progresses to plan with detailed consideration of working areas and construction logistics in progress.

## London Underground

### Station Condition Renewal

|                               |        |
|-------------------------------|--------|
| Spend to end Q1<br>2011/12 £m | EFC £m |
| 522.4                         | 825.3  |

Planned funding for Finsbury Park, Highbury & Islington, Vauxhall and a general provision for Congestion Relief schemes are now included in this programme.

| Milestones  | Current Plan Date | Actual/Forecast Date | RAG       |
|---|-------------------|----------------------|-----------|
| Notting Hill Gate station modernisation – Project Management Framework (PMF) Stage 5 Gate Review        | 05/05/2011        | 05/05/2011           | Completed |
| Marble Arch station modernisation - PMF Stage 5 Gate Review   | 17/07/2011        | 26/06/2011           | ●         |
| Highbury & Islington Event Mitigation Project - start on site   | 07/05/2012        | 07/10/2011           | ●         |
| Highbury & Islington Event Mitigation Project - beneficial use practical completion                     | 15/11/2012        | 18/04/2012           | ●         |
| Highbury & Islington Event Mitigation Project - finish on site (snagging complete)                      | 06/12/2012        | 10/05/2012           | ●         |
| Highbury & Islington Event Mitigation Project - mandatory asset information deliverables accepted by LU | 03/01/2013        | 08/06/2012           | ●         |
| Former Silverlink Stations Upgrade - project close out  | 21/12/2012        | 23/11/2012           | ●         |
| Former Silverlink Stations Upgrade - close out (PMF Stage 7)  | 30/11/2012        | 02/11/2012           | ●         |

This programme comprises a portfolio of third party funded works, legacy station upgrade works and budgetary provisions for future station capacity schemes.

On the Cannon Street Station works, the Compliance documents have now achieved 'no objection' status. Cables have been re-routed around suspected asbestos. At Marble Arch station, snagging is now completed and the Wet Main Concession Request to the LU Fire Engineer has been approved. At Notting Hill Gate station, snagging is now completed.

The Planning Approval Submission has been made by Capital & Counties (developer) for the Earl's Court development and LU is reviewing.

## London Underground

Post quarter update: Marble Arch Project Management Framework Stage 5 (Project completion & handover) Gate Review achieved 15/07/2011.

### Cooling the Tube Programme

| Spend to end Q1<br>2011/12 £m | EFC £m |
|-------------------------------|--------|
| 163.5                         | 235.1  |

| Milestones   | Current Plan Date | Actual/Forecast Date | RAG       |
|--|-------------------|----------------------|-----------|
| Mid Tunnel Vents Tranche 3 - all fans and associated equipment available                 | 06/07/2011        | 20/04/2011           | Completed |
| Out of Service Fans - Phase 4 Clapham sub-station/Weston Rise - approved detailed design | 25/07/2011        | 25/07/2011           | ●         |
| Tranche 2 - All Victoria line mid tunnel vents sites handed over to maintenance          | 20/08/2011        | 28/06/2011           | ●         |
| Out of Service Fans - Phase 4 - first start on site                                      | 19/01/2012        | 19/01/2012           | ●         |
| All Victoria line Tranche 3 mid tunnel vents sites beneficial use                        | 04/02/2012        | 29/11/2011           | ●         |
| Out of Service Fans - Phase 4 - all fans available for beneficial use                    | 19/09/2012        | 19/09/2012           | ●         |

This is a long term programme to control ambient temperatures on the Underground. Without intervention, temperatures will rise as more energy is dissipated within the tunnels due to increased train service capability delivered by the deep-tube line upgrades. Planned mitigation measures include improved energy efficiency, increased ventilation and selected station-based tunnel cooling systems.

#### Mid-tunnel vents:

The Rita Road Mid-Tunnel Vent Shaft, the first of the final tranche on the Victoria line, passed its 48 hour capacity and sound level test successfully; final adjustments are now being made to optimise the balance between capacity and sound levels.

#### Restoration of out-of-service fans:

Steady progress has been made on the Detailed Designs for restoration of the two long-term out of service fans on the Northern line (at Weston Rise and Clapham Substation Shaft).

## London Underground

### Crossrail and Third Parties

|                               |        |
|-------------------------------|--------|
| Spend to end Q1<br>2011/12 £m | EFC £m |
| 114.4                         | 242.1  |

| Milestones  | Current Plan Date | Actual/Forecast Date | RAG       |
|---|-------------------|----------------------|-----------|
| Barbican Interlocking Machine Room - deliver into service   | 22/05/2011        | 22/01/2011           | Completed |
| CER Equipment ready for installation into new location at Liverpool Street to be provided by CRL                        | 25/06/2011        | 25/04/2011           | Completed |
| Complete LU enabling works for shield removal at Blackfriars  | 25/06/2011        | 13/04/2011           | Completed |
| Support Hertfordshire County Council in the submission of its best and final bid to DfT for Croxley Rail Link           | 30/09/2011        | 30/08/2011           | ●         |
| Thameslink Blackfriars OPO (One Person Operation) works start on site   | 11/10/2011        | 06/09/2011           | ●         |
| Support Hertfordshire County Council in the submission of its TWAO for Croxley Rail Link                                | 26/11/2011        | 26/10/2011           | ●         |
| LU acceptance of Staged Design Compliance Certificate for Whitechapel main station fit out prior to contract award      | 31/12/2011        | 02/12/2011           | ●         |
| Thameslink Farringdon - LU works complete including Connect and Prestige  | 06/01/2012        | 09/12/2011           | ●         |
| Thameslink Blackfriars - LU ready to bring station back into operation  | 10/01/2012        | 13/12/2011           | ●         |
| LU acceptance of Staged Design Compliance Certificate for Liverpool Street main station fit out prior to contract award | 31/01/2012        | 06/01/2012           | ●         |
| Submission of TWAO (jointly with Treasury Holdings)   | 02/02/2012        | 02/01/2012           | ●         |

The Infrastructure Manager role for the Crossrail Central Section Routeway has been transferred to London Rail from Network Rail. Work Packages have been received by LU to relocate the Station Operations Room and the sprinkler valve chamber and to construct a switch room at Liverpool Street.

## London Underground

Agreement was reached with Crossrail on an approach to incentivise contractors to reduce the required closures of LU assets prior to contract Invitation To Tender. The reduction in closure will be 30 per cent for some stations.

Public consultation exercises were held for Croxley Link and the Northern line Extension.

Post quarter update:

- Thameslink Blackfriars OPO (One Person Operation) works start on site – achieved 11 August 2011.
- Support Hertfordshire County Council in the Submission of its Best and Final Bid to DfT for Croxley Rail Link – achieved 16 August 2011.
- Support Hertfordshire County Council in the submission of its TWAO for Croxley Rail Link – achieved 16 August 2011.

### Track Renewal (BCV/SSR)

| Spend to end Q1 2011/12 £m | EFC 2010/11 £m |
|----------------------------|----------------|
| 21.0                       | 124.1          |

| Milestones  | Current Plan Date | Actual/Forecast Date | RAG |
|---|-------------------|----------------------|-----|
| Ballasted Track Replacement and Re-ballast Metres - 9,976m achieved               | 02/10/2011        | 02/10/2011           | ●   |
| Points and Crossings - 14 units achieved  | 02/10/2011        | 02/10/2011           | ●   |
| Track Drainage - 5,369m replaced  | 02/10/2011        | 02/10/2011           | ●   |
| Deep Tube Class 1 Renewal (Expected trackform life of 40 years) - 1,268m achieved | 02/10/2011        | 02/10/2011           | ●   |
| Ballasted Track Replacement and Re-ballast Metres - 15,456m achieved              | 31/03/2012        | 31/03/2012           | ●   |
| Points and Crossings - 18 units achieved  | 31/03/2012        | 31/03/2012           | ●   |
| Track Drainage - 8,874m replaced  | 31/03/2012        | 31/03/2012           | ●   |
| Deep Tube Class 1 Renewal (expected trackform life of 40 years) - 2,457m achieved | 31/03/2012        | 31/03/2012           | ●   |

Good planning allowed an exceptional amount of work to be achieved in the quarter. Delivery of first Track Partnership sites included an 885m Ballasted Track Replacement site. Points and Crossings units were completed at White City and Queens Park. The Track Delivery Unit delivered their busiest and most successful quarter since formation.

## London Underground

### Civils (BCV/SSR)

| Spend to end Q1<br>2011/12 £m | EFC to 2010/11<br>£m |
|-------------------------------|----------------------|
| 4.6                           | 23.8                 |

| Milestones   | Current Plan Date | Actual/Forecast Date | RAG       |
|--|-------------------|----------------------|-----------|
| Chiswick Park to Acton Town - practical completion   | 25/06/2011        | 24/06/2011           | Completed |
| Chiswick Park to Turnham Green - practical completion  | 20/08/2011        | 18/07/2011           | ●         |
| Chalfont - practical completion  | 17/09/2011        | 12/08/2011           | ●         |
| Civils Pumps Programme 2011 to 2013 - start on site – first of five internal work sites (West Ruislip) | 11/10/2011        | 05/10/2011           | ●         |
| Amersham to Chalfont and Latimer - practical completion  | 28/11/2011        | 11/11/2011           | ●         |
| Civils Pumps Programme 2011 to 2013 - six station pump renewals completed                              | 30/11/2011        | 30/11/2011           | ●         |
| Civils Pumps Programme 2011 to 2013 - practical completion - last of eight sites                       | 07/11/2012        | 24/10/2012           | ●         |

The Civils programme is ahead of plan. Two earth structures (ES) projects were completed in the quarter (between Chiswick Park and Acton Town and between Upney and Beacontree) against a plan of one. One small bridges and structures project has been completed and another started on site, both ahead of plan. Two new, five-year ES framework contracts have been signed.

Post quarter update: Chiswick Park to Turnham Green Practical Completion achieved 18 July 2011.



## London Underground

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### *Deep Tube Upgrade*

| Spend to end Q1<br>2011/12 £m | EFC £m |
|-------------------------------|--------|
| 0.4                           | *      |

This is the initial stage of works to provide a co-ordinated line upgrade and asset renewal programme for the Deep Tube lines (Bakerloo, Piccadilly, Central and Waterloo & City).

Progress has been made toward delivery of a detailed scope and set of requirements with which to launch the initial implementation stage of the Deep Tube Programme. The process has been agreed and review material distributed for the first Scope Definition Review, the output of which, will be available for consultation with stakeholders, for estimating purposes and risk reviews.

## Tube Lines

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### *Tube Lines Station Upgrades*

| Spend to end Q1<br>2010/11 £m | EFC to 2014/15<br>£m |
|-------------------------------|----------------------|
| 5.2                           | 59.4                 |

| Milestones                                    | Current Plan Date | Actual/Forecast Date | RAG       |
|---|-------------------|----------------------|-----------|
| Stratford ODA – delivery into service         | 24/11/2010        | 28/02/2011           | Completed |
| Finsbury Park – delivery into service         | 08/02/2011        | 08/02/2011           | Completed |
| Heathrow T 1, 2 and 3 – delivery into service | 20/12/2011        | 20/12/2011           | ●         |

Heathrow T123 Station Modernisation Enhancement Project (SMEP): practical completion and delivery into service dates have now been aligned with Step-Free Access (SFA) works due to numerous interface works that can not be completed until the SFA project has been completed. Works on the Signal Equipment Rooms Programme was completed in the quarter.

Work is currently in progress to determine the delivery schedule for Rail Vehicle Accessibility Regulation works in 2011/12.

## Tube Lines

### Tube Lines Lifts and Escalators (L&E)

| Spend to end Q1 2010/11 £m | EFC to 2014/15 £m |
|----------------------------|-------------------|
| 7.9                        | 18.0              |

| Milestones   | Current Plan Date | Actual/Forecast Date | RAG       |
|--|-------------------|----------------------|-----------|
| Bounds Green E3 Refurbishment – Return to Service (BIU)            | 28/05/2011        | 03/05/2011           | Completed |
| Leicester Square E3 Refurbishment – Return To Service (BIU)        | 28/05/2011        | 13/05/2011           | Completed |
| North Greenwich E2 Refurbishment – Return To Service (BIU)         | 28/05/2011        | 13/05/2011           | Completed |
| West Ham E1 Refurbishment – Return To Service (BIU)                | 25/06/2011        | 27/05/2011           | Completed |
| Southwark E6 Refurbishment – Return To Service (BIU)               | 17/09/2011        | 12/08/2011           | ●         |
| Leicester Square E2 Refurbishment – Return To Service (BIU)        | 15/10/2011        | 27/09/2011           | ●         |
| West Ham E3 Refurbishment – Return To Service (BIU)                | 15/10/2011        | 04/10/2011           | ●         |
| Stratford E1 Replacement – Return To Service (BIU)                 | 12/11/2011        | 06/12/2011           | ▲         |
| Stratford E2 Like For Like Refurbishment – Return To Service (BIU) | 07/01/2012        | 13/12/2011           | ●         |
| Southwark E4 Refurbishment – Return To Service (BIU)               | 07/01/2012        | 19/12/2011           | ●         |
| Leicester Square E1 Refurbishment – Return To Service (BIU)        | 03/03/2012        | 01/02/2012           | ●         |
| North Greenwich E8 Refurbishment – Return To Service (BIU)         | 03/03/2012        | 11/02/2012           | ●         |

There is now an opportunity to replace both escalators 1 and 2 at Stratford concurrently instead of sequentially. The impact of this change is that escalator 1 start on site and bring into use (BIU) milestones will be re-phased to a later date. The revised schedule on escalator 2 will reduce the overall site duration, making this option more economic and efficient for both time and cost, plus it reflects the views of LU Station operations. The revised dates and closures have been agreed with LU.

In Quarter 1, refurbishment works were completed at Bounds Green (escalator 3), Leicester Square (escalator 3), North Greenwich (escalator 2) and West Ham (escalator 1) with all escalators returned to service. Refurbishment works commenced at Leicester Square (escalator 2).

## Tube Lines

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### Tube Lines Track

| Spend to end Q1<br>2010/11 £m | EFC to 2014/15<br>£m |
|-------------------------------|----------------------|
| 12.8                          | 176.5                |

| Milestones                                   | Current Plan Date | Actual/Forecast Date | RAG |
|--|-------------------|----------------------|-----|
| JNP Track replacement, install 1,500m        | 17/09/2011        | 17/09/2011           | ●   |
| JNP Enhanced Track replacement, install 983m | 17/09/2011        | 30/03/2012           | ■   |
| JNP Tube reconditioning, complete 850m       | 10/12/2011        | 10/12/2011           | ●   |

A planned Enhanced Track Replacement (ETR) closure for August was cancelled, the current planned closure date is now December 2011. The impact of this change is that the milestone date has changed to period 13 pending formal closure approval.

In Quarter 1, the 2011/12 targets were set. Productivity levels were broadly on target for all works in the track programme, with the following totals completed in the quarter:

- 1,390m of re rail
- 157m of tube reconditioning
- 29 pit block renewals
- 427 sleeper interventions
- 707m of scrap rail removal

## Tube Lines

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### *Tube Lines Civils*

| Spend to end Q1<br>2010/11 £m | EFC to 2014/15<br>£m |
|-------------------------------|----------------------|
| 2.3                           | 90.2                 |

| Milestones                                 | Current Plan Date | Actual/Forecast Date | RAG |
|--|-------------------|----------------------|-----|
| JNP drainage renewal, complete 1,000m      | 17/09/2011        | 17/09/2011           | ●   |
| JNP drainage renewal, complete 2,400m      | 31/03/2012        | 31/03/2012           | ●   |
| JNP earth structure renewal, complete 300m | 17/09/2011        | 17/09/2011           | ●   |
| JNP earth structure renewal, complete 600m | 31/03/2012        | 31/03/2012           | ●   |

Earth Structure Remediation (ESR) works at site 40a and 40d Canons Park to Queensbury: construction works were delayed due to site access issues with Barnet football club. Agreement has been reached and construction will commence in period 5.

On the Bond Street to Baker Street tunnel project, an independent expert has been appointed to review engineering options.

## Tube Lines

### Tube Lines Jubilee and Northern Line Upgrade Works

| Spend to end Q1 2011/12 £m | EFC £m |
|----------------------------|--------|
| 172.5                      | 734.5  |

| Milestones  | Current Plan Date | Actual/Forecast Date | RAG       |
|---|-------------------|----------------------|-----------|
| Northern line – complete negotiations with Thales to enable placing of new Supplemental Agreement or Propose new strategy | 30/04/2011        | 30/04/2011           | Completed |
| Jubilee line – J5 section commissioned and revenue service started  | 15/04/2010        | 25/06/2011           | Completed |
| Ready for Revenue Service (High Barnet area)  | 15/10/2013        | 15/10/2013           | ●         |
| Ready for Revenue Service (Camden Junction area)  | 30/6/2014         | 30/6/2014            | ●         |
| Northern Line Upgrade complete, delivering 20% increase in capacity ( <b>Annex B: 2014</b> )                              | 31/12/2014        | 31/12/2014           | ●         |

This project will provide a significant increase in passenger capacity, faster journey times and reduced waiting time at platforms for the Jubilee and Northern lines.

#### Jubilee line

On 26 June 2011, the first Jubilee line Train-Based Transmission Control (TBTC) train in passenger service left Stanmore for Stratford. This was a significant milestone in the Jubilee line upgrade, with the successful commissioning of TBTC passenger service end-to-end from Stratford to Stanmore.

The strengthening plan works continued to support the planned introduction of Working Time Table (WTT) 11 on 31 July 2011. The plan includes further software improvements that are designed to remove underlying problems and improve TBTC reliability.

The critical issues list and reporting was updated to incorporate J5, with J5 issues now discussed and progressed on a daily basis by the “One Team” made up of Tube Lines, Thales and LU staff.

#### Northern line

Signage design items were agreed in principle, subject to final document submissions. Updates to the Works Information were progressed with meetings held with Thales to agree the changes for the removal of redundant equipment on both Northern line and Jubilee line.

Thales progressed the bookwiring deliverables and installed enabling scope, such as cable loops and axle counters.

## Tube Lines

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The critical technical area for the delivery strategy remains systems testing in engineering hours and operation of performance monitoring. The high level strategy is established and the next level of detail is being worked through by Tube Lines and Thales in Canada.

## London Rail

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### *East London Line Phase 2*

| Spend to end Q1<br>2011/12 £m | EFC £m |
|-------------------------------|--------|
| 14.3                          | 72.6   |

| Milestones                                      | Current Plan Date | Actual/Forecast Date | RAG |
|---|-------------------|----------------------|-----|
| Network Rail Work Package 2 track modifications | 24/09/2011        | 24/09/2011           | ●   |
| Commence permanent way construction             | 15/01/2012        | 15/01/2012           | ●   |
| Commence passenger services                     | 09/12/2012        | 09/12/2012           | ●   |

East London Line (ELL) Phase 2 will provide an additional four trains per hour on the core ELL. These trains will run to Clapham Junction via a new chord that leaves the ELL Phase 1 route to the south of Surrey Quays and joins the South London Line to the north of Queens Road (Peckham).

During the quarter, the main civils contractor Birse Metro mobilised and has commenced work on site. Network Rail delivered part of the works, a track slew was carried out and surveys of Clapham Junction are being carried out ahead of mobilisation at that site.

Three four-car 378 units have been ordered and are due for delivery at the end of 2011. There is an opportunity that this rolling stock will be used for increased service provision on the core route and in the future for additional Games services, prior to being used on Phase 2.



## London Rail

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### *North London Railway Infrastructure Project*

| Spend to end Q1<br>2011/12 £m | EFC £m |
|-------------------------------|--------|
| 252.2                         | 252.2  |

| Milestones         | Current Plan Date | Actual/Forecast Date | RAG       |
|--------------------|-------------------|----------------------|-----------|
| Project completion | 26/04/2011        | 26/04/2011           | Completed |

The project is substantially complete, with all major scope items delivered. Network Rail has applied for practical completion and no objections have been submitted by London Rail. The works are in service and delivering a timetable in excess of ODA requirements. Some minor items remain, such as removal of insulated block joints and small communications works at Latchmere.

This project will be removed from the report in Quarter 2.

### *DLR Three-Car Infrastructure*

|                               |        |
|-------------------------------|--------|
| Spend to end Q1<br>2011/12 £m | EFC £m |
| 290.2                         | 290.7  |

| Milestones  | Current Plan Date | Actual/Forecast Date | RAG       |
|---|-------------------|----------------------|-----------|
| East route – service operational for Olympic test     | 30/05/2011        | 09/05/2011           | Completed |
| East route – three-car operational capacity available | 31/05/2011        | 09/05/2011           | Completed |

This project delivers the structural works necessary for three-car operation on the Docklands Light Railway (DLR). This includes platform extensions, track realignment and viaduct strengthening. The project includes three-car works on the Bank to Lewisham section, Delta Junction, the Poplar to Stratford Route, Poplar to Woolwich, Tower Gateway, Games station capacity (East route) and West route resilience.

All construction work is complete on the Three Car project, including the East route and the new infrastructure is fully operational. The final account has been agreed with the contractor. This project will be removed from the report in Quarter 2.

## London Rail

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### *DLR Stratford International Extension*

| Spend to end Q1<br>2011/12 £m | EFC £m |
|-------------------------------|--------|
| 173.7                         | 180.5  |

| Milestones                                      | Current Plan Date | Actual/Forecast Date | RAG |
|---|-------------------|----------------------|-----|
| Complete conversion of North London line to DLR | 22/06/2011        | 31/07/2011           | ▲   |
| Service operational                             | 04/07/2011        | 31/08/2011           | ▲   |

This project covers the extension of the DLR from Canning Town to Stratford International, using the existing North London Line alignment as far as Stratford.

Package 8 (Network Rail platforms at Stratford) is complete. On Package 6 (conversion of NLL to DLR) work is ongoing to clear a large number of snags following practical completion. A significant number of snags are likely to remain to be cleared after opening.

The project went into trial operations in early August 2011, with full revenue service commencing on 31 August 2011.

## London Rail

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### Cable Car

| Spend to end Q1<br>2011/12 £m | EFC £m |
|-------------------------------|--------|
| 10.7                          | 62.6   |

| Milestones                        | Current Plan Date | Actual/Forecast Date | RAG       |
|-----------------------------------|-------------------|----------------------|-----------|
| Award contract                    | 30/04/2011        | 18/04/2011           | Completed |
| Guide rope install via helicopter | 10/03/2012        | 03/03/2012           | ●         |
| Commence trial operations         | 01/05/2012        | 01/05/2012           | ●         |
| Revenue operation commences       | 01/06/2012        | 01/06/2012           | ●         |

The cable car will stretch 1.1 km across the Thames between North Greenwich and Royal Victoria; the 34 gondola cabins will carry up to 2,500 people per hour.

Piling works have commenced at the station and tower locations. The design of the structures and the design and manufacture of the cabins are underway and progressing well.

## Surface Transport

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### *Congestion Charging Re-Let*

| Spend to end Q1<br>2010/11 £m | EFC £m |
|-------------------------------|--------|
| 94.0                          | 94.0   |

| Milestones  | Current Plan Date | Actual/Forecast Date | RAG       |
|---|-------------------|----------------------|-----------|
| IBM functionality complete                                | 31/08/2010        | 06/11/2010           | Completed |
| Release 2 – go live of automated payment account charging | 31/12/2010        | 29/12/2010           | Completed |
| Project close approved                                    | 30/06/2011        | 12/07/2011           | ▲         |

The Congestion Charging Re-Let project is to deliver new, more effective contracts to operate and manage the Congestion Charging and Low Emission Zone. The Re-Let will also incorporate more flexible and varied charging options.

The Congestion Charging 'Auto Pay' automated payment account charging functionality went live successfully on 29 December 2010, with the service launched to the public on 4 January 2011 as planned. Changes to the Congestion Charge fee and to some discounts and exemptions also came into effect on 4 January 2011. The Auto Pay public information campaign completed March 2011.

To date, 140,000 customers have registered for the new payment channel with over 2.4m journeys assigned to Auto Pay accounts since the service was launched.

The project is continuing to close, handing over operations into business-as-usual activities. Formal authority to close the project was approved on 12 July 2011, the project will be removed from the report Quarter 2.

## Surface Transport

### TLRN Capital Renewals Programme

The annual budget for the Transport for London Road Network (TLRN) Capital Renewals Programme is based on long-term asset investment modelling and an objective, risk-based assessment of the renewals required to deliver a safe and serviceable network.

| Spend to end Q1<br>2011/12 £m | 2011/12 EFC £m |
|-------------------------------|----------------|
| 8.4                           | 49.0           |

| Description of works              | Units          | 2011/12<br>annual target | 2011/12<br>achieved to<br>date |
|-----------------------------------|----------------|--------------------------|--------------------------------|
| Area of carriageway resurfaced    | m <sup>2</sup> | 470,000                  | 79,436                         |
| Area of footways resurfaced       | m <sup>2</sup> | 45,000                   | 2,248                          |
| Number of lighting units replaced | No.            | 950                      | 20                             |

Capital Renewals is an annualised programme of schemes that maintain the physical infrastructure of the TLRN, including carriageways, footways, structures, tunnels, lighting, drainage, green estate and street furniture. The programme consists of schemes that lengthen the useful life of an asset, either by replacing it with a new one, or by some other intervention such as reconstruction or refurbishment.

Schemes are identified, prioritised and programmed (assigned to an appropriate year) using a risk-based approach. Typically an additional ten per cent of schemes are identified to act as reserves. The reserves creates flexibility that caters for unplanned scheme deferrals, caused by factors such as severe winter weather, refusal of permits on congestion grounds and other events.

The budget approved for the Capital Renewals 2011/12 is £47.2m, which comprises £24.9m for carriageways, £4.5m for footways and £3.4m for lighting, £9.2m for Structures and £6.2m for others.

### Carriageway resurfacing

By the end of Quarter 1, 79,436m<sup>2</sup> of carriageway was resurfaced against a forecast output of 82,936m<sup>2</sup> for the year to date. The variance was due to a delay caused by a cycle lane being introduced on the A243 Hook Road, Kingston-upon-Thames in 2010/11 and a current evaluation of additional works requirements. This scheme is being deferred to 2012/13 to coordinate with any future works identified by the cycle lane monitoring.

### Footways resurfacing

By the end of Quarter 1, 2,248m<sup>2</sup> of footway was resurfaced against a forecast output of 4,888m<sup>2</sup> for the year to date. The variance was due to three schemes not completing as forecast: A10 Bishopsgate, A205 Christchurch Road, and A23, Addington Street.

## Surface Transport

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### Lighting column replacements

By the end of Quarter 1, 20 lighting columns were replaced against a forecast output of 42 for the year to date. The variance was due to the non-completion of the A3 Kingston Road scheme.

## Surface Transport

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### A406 Bounds Green

| Spend to end Q1<br>2011/12 £m | EFC £m |
|-------------------------------|--------|
| 38.6                          | 52.7   |

| Milestones                                   | Current Plan Date | Actual/Forecast Date | RAG       |
|--|-------------------|----------------------|-----------|
| Completion of advance statutory works        | 19/04/2010        | 19/04/2010           | Completed |
| Commence main works                          | 31/05/2010        | 19/04/2010           | Completed |
| Complete protection structure for LUL bridge | 31/03/2011        | 21/03/2011           | Completed |
| Wilmer Way junction opening                  | 07/08/2011        | 15/06/2011           | Completed |
| Completion of main works                     | 05/06/2012        | 28/02/2012           | ●         |

The section of the A406 between Bounds Green Road and Green Lanes suffers from congestion and has a poor accident record. The project will create a predominantly two-lane dual carriageway with improved traffic flows at junctions, improved pedestrian crossing facilities, a dedicated cycleway, improved bus journey reliability, and improvements to the local street scene.

Wilmer Way was successfully opened on 15 June 2011, following completion and opening of the new footbridge in the previous quarter. The majority of utility diversion works have now been completed. Construction works are 60 per cent complete and structural works are 85 per cent complete.

The Powys Lane junction, which has been closed for 12 weeks, is expected to be completed next quarter, allowing more capacity on the network and reducing congestion through the works. Completion of main works remains on schedule for February 2012.



## Surface Transport

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### *Blackwall Tunnel Northbound Refurbishment*

| Spend to end Q1<br>2011/12 £m | EFC £m |
|-------------------------------|--------|
| 60.2                          | 65.8   |

| Milestones                   | Current Plan Date | Actual/Forecast Date | RAG       |
|------------------------------|-------------------|----------------------|-----------|
| Mobilisation Period complete | 03/05/2010        | 03/05/2010           | Completed |
| Shaft 2 complete             | 18/03/2011        | 16/02/2011           | Completed |
| Construction complete        | 31/12/2012        | 31/12/2011           | ●         |

This project will bring the Northbound tunnel to European best practice standards. Work includes: shaft alterations, ventilation upgrades, lighting, drainage, signage and public address system works and upgrades to the emergency points and fire detection and fighting systems. The project is being delivered during night time and occasional weekend possessions.

New roofs at shafts 1 and 4 have now been completed, with installation work in the tunnel continuing to progress to plan. Commissioning of new equipment has now commenced. The final two weekend closures have been cancelled and confirmation received that no further weekend closures will be required.

The project remains on schedule to complete construction by 31 December 2011, following earlier acceleration and excellent progress, ensuring completion in advance of the London 2012 Games.

## Surface Transport

### Cycle Hire

| Spend to end Q1 2011/12 £m | EFC £m |
|----------------------------|--------|
| 76.6                       | 108.6  |

| Milestones                                      | Current Plan Date | Actual/Forecast Date | RAG       |
|---|-------------------|----------------------|-----------|
| Phase 1: go live #1 – website                   | Summer 2010       | 30/07/2010           | Completed |
| Phase 1: on street construction completed       | 30/06/2011        | 31/07/2011           | ▲         |
| Phase 1: systems integration end to end testing | 28/07/2010        | 31/12/2010           | Completed |
| Phase 1: go live #2 – on street                 | Summer 2010       | 30/07/2010           | Completed |
| Phase 2: expansion sites identified             | 28/02/2011        | 28/02/2011           | Completed |
| Phase 2: go live #4 – expansion area on street  | 02/03/2012        | 02/03/2012           | ●         |
| Phase 2: construction complete                  | 05/09/2012        | 05/09/2012           | ●         |

The Barclays Cycle Hire scheme launched successfully on 29 July 2010, to registered members. 54 per cent of registered users have opted for annual membership, which means they get access for 12 pence per day, and as the vast majority of trips are under 30 minutes, this is a low cost as well as convenient alternative for many travellers.

Barclays Cycle Hire will expand to the east of the city in 2012. When complete, the expanded scheme will cover 65km<sup>2</sup> of the Capital and around 8,000 hire bikes will be available from 14,400 docking points at hundreds of locations across central and eastern London.

Installation of the initial planned 400 docking stations was completed within the quarter with circa 6,000 cycles now available for hire. The phase one construction works were completed post quarter on 28 July 2011.

On Phase 2, existing docking stations suitable for expansion with additional docking points as part of Phase 2 have now been identified. Discussions continue with Serco to ensure the supply chain for cycles and docking points can support the planned delivery schedules, and the operations can be scaled to support the increased demand when Phase 2 launches.

Phase 2 launch remains on schedule for March 2012.

## Surface Transport

### Ten Cycle Superhighways

|                               |        |
|-------------------------------|--------|
| Spend to end Q1<br>2011/12 £m | EFC £m |
| 16.0                          | 105.7  |

| Milestones                            | Current Plan Date | Actual/Forecast Date | RAG       |
|---------------------------------------|-------------------|----------------------|-----------|
| Phase 1 detailed design completed     | 28/02/2011        | 25/02/2011           | Completed |
| Phase 1 complete (two routes total)   | 17/06/2011        | 04/07/2011           | ▲         |
| Phase 2 complete (four routes total)  | 31/05/2013        | 31/05/2013           | ●         |
| Phase 3 complete (six routes total)   | 30/09/2013        | 30/09/2013           | ●         |
| Phase 4 complete (eight routes total) | 30/04/2014        | 30/04/2014           | ●         |
| Phase 5 complete (ten routes total)   | 30/01/2015        | 30/01/2015           | ●         |

The Ten Cycle Superhighways scheme will deliver a further ten radial routes into central London following the pilot project. The ten routes will be delivered in five phases of two routes, annually from June 2011. The last route is expected to be delivered by January 2015.

On Phase 1 (Route 2 – Ilford to Aldgate, Route 8 – Wandsworth to Westminster), construction works were completed post quarter on 18 July 2011 and launched successfully on 19 July 2011.

On Phase 2 (Route 5 and Route 12), modelling design and consultation are all progressing to plan with detailed design on schedule to complete by the end of 2011. Construction is now planned to commence after the 2012 Games with completion expected by May 2013.

On Phase 3 (Route 9 and Route 11), the feasibility studies were completed in May 2011 with preliminary design in progress.

## Surface Transport

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### *Split Cycle Offset Optimisation Technique (SCOOT)*

| Spend to end Q1<br>2011/12 £m | EFC £m |
|-------------------------------|--------|
| 7.8                           | 24.1   |

| Milestones                                     | Current Plan Date | Actual/Forecast Date | RAG       |
|--|-------------------|----------------------|-----------|
| 634 sites installed                            | 31/03/2011        | 04/03/2011           | Completed |
| 885 sites installed                            | 31/03/2012        | 31/03/2012           | ●         |
| 1,000 sites installed ( <b>Annex B: 2015</b> ) | 31/03/2013        | 31/03/2013           | ●         |

The SCOOT programme will upgrade traffic signal technology to help meet the Mayoral objective of smoothing traffic flow. The programme has been added to this report to ensure that all milestones listed in Annex B of the Spending Review 2010 settlement letter are monitored on an ongoing basis. Costs shown are for the New SCOOT Investment project, which will deliver 528 sites of a planned 1,000 sites. The remaining sites are funded and delivered by business-as-usual activities across Surface Transport.

Under the New SCOOT Investment project, 240 sites are planned to be installed in the 2011/12 financial year, bringing the total to 413 sites of the 528 the project will contribute towards the planned 1,000 total.

In this quarter, civil works and installation of SCOOT detection loops have been completed at 32 sites with 4 sites commissioned. Detailed design work has been completed on 158 sites.

### Future Ticketing

| Spend to end Q1<br>2011/12 £m | EFC £m |
|-------------------------------|--------|
| 3.7                           | *      |

| Milestones  | Current Plan Date | Actual/Forecast Date | RAG |
|---|-------------------|----------------------|-----|
| Phase 1 – initial bus launch to be implemented, payment of the bus single fare by contactless bank card                     | Early 2012        | Early 2012           | ●   |
| Phase 2a – multi-modal daily travel and daily capping with contactless bank card to be implemented ( <b>Annex B: 2012</b> ) | 31/12/2012        | 31/12/2012           | ●   |
| Phase 2b – seven day capping to be implemented  | 31/12/2013        | 31/12/2013           | ●   |

The Future Ticketing Programme enables the acceptance as payment for travel of contactless cards issued on an EMV (Eurocard, Mastercard, Visa) platform both by banks and by TfL. To enable cost savings and acceptance of contactless cards, changes to the existing ticketing system and back office processes will be made.

On Phase 1, the supplier Cubic has started integration testing and the plan continues on target for delivery in Quarter 1 2012.

On Phase 2, Cubic and TfL have frozen the Concept of Operation document so that they can deliver a fixed price by the end of September 2011. Internal software developments continue, in addition to the build of a pre-production back office platform.

## Corporate

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### ITSO

| Spend to end Q1<br>2011/12 £m | EFC £m |
|-------------------------------|--------|
| 42.3                          | 58.3   |

| Milestones                                      | Current Plan Date | Actual/Forecast Date | RAG |
|---|-------------------|----------------------|-----|
| Head office processing system operational       | 19/06/2012        | 12/06/2012           | ●   |
| 3G communications software development complete | 15/08/2011        | 9/09/2011            | ▲   |
| Completion of changes to back-office systems    | 10/08/2011        | 5/12/2011            | ▲   |
| Completion of project                           | 31/12/2012        | 24/12/2012           | ●   |

ITSO (Integrated Transport Smartcard Organisation) is the name of the smartcard specification being mandated by the Department for Transport (DfT) for rail franchises and for the national bus concessionary scheme. Enabling the acceptance of ITSO specified tickets requires changes to TfL's ticketing systems, including a card reader capable of reading both Oyster and ITSO tickets, establishment of a head office processing system, new or upgraded communications links and other system changes. The project is being funded by the DfT, under an agreement with TfL dated 28 May 2009.

In Quarter 1, the main rollout of tri-card readers was started on the bus fleet. Testing was extended to cover all gate types and Passenger Operated Machines and Ticket Office Machines; performance continues to be monitored.

Over-the-Air communications development continues to schedule; early assurance activities have been undertaken and a testing deployment plan agreed.