

Date: 17 May 2023

Item: Investment Programme Report – Quarter 4: 2022/23 Summary

This paper will be considered in public

1 Summary

- 1.1 The purpose of this paper is to update the Committee on the progress of specific achievements ahead of the full quarterly report to the meeting of the Committee in July 2023.
- 1.2 A paper is included on Part 2 of the agenda which contains exempt supplemental information that is exempt from publication by virtue of paragraph 3 of Schedule 12A of the Local Government Act 1972 in that it contains information relating to the business affairs of TfL. Any discussion of that exempt information must take place after the press and public have been excluded from this meeting.

2 Recommendation

- 2.1 **The Committee is asked to note the paper and the exempt supplementary information on Part 2 of the agenda.**

3 Major Projects

Four Lines Modernisation

We continue to make progress on the programme, which is delivered by progressively installing new signalling on sections of the railway called signal migration areas (SMAs).

Following our successful commissioning of the signalling section between Stepney Green to Becontree, SMA6, on 15 January, the signalling section between Dagenham East and Upminster, SMA7, went live on 19 March. This is another significant achievement for the programme as it extends the roll-out of the new signalling system on the District line, completes automatic running on the east of the railway, and connects the first depot to the network.

The area now operating under the new signalling contains 62 stations and four complex junctions, including the full Circle and Hammersmith & City lines. For comparison purposes, the Jubilee line has 27 stations. This means that two of the four sub-surface lines (and around 57 per cent of the Tube network in total) is now operated by an automatic signalling system.

Our focus is now moving to software development for future SMAs covering the Metropolitan line north of Finchley Road. Over the Easter weekend we undertook successful testing of the new signalling between Finchley Road and Preston Road (SMA8).

Silvertown Tunnel

The Tunnel Boring Machine (TBM) reached the rotation chamber in the Greenwich site on 15 February 2023, completing the tunnelling of the first bore, which was a significant milestone for the project. Work is now underway to rotate the TBM within the rotation chamber, which is an innovative and complex process. This will lead to the commencement of the tunnelling of the second bore in June 2023.

Bank Station Capacity Upgrade

The new street-level entrance on Cannon Street was officially opened by the Mayor of London on 27 February. This includes six further escalators between street level and the Northern line platform level, step-free access to the Northern line for the first time and improved step-free access to the DLR via new lifts. This completes the transformation of Bank Station which is a significant milestone.

DLR rolling stock replacement programme and systems integration (includes Housing Infrastructure Fund)

Beckton depot and network infrastructure

At Beckton, critical works to complete the Northern Sidings works are underway with possessions to bring the sidings into use being planned for mid-2023.

The improvements at Beckton Depot are an integral part of the new DLR train programme. Improved maintenance facilities ensure a continued reliable service for customers.

Following the award of the contract for the maintenance facility building and southern sidings our contractor has now mobilised to site.

We have awarded the contract for the design and build for a second entrance at Blackwall station which is essential for unlocking the full fleet roll out.

- Additional stabling provides safe storage for a growing fleet of DLR trains
- Improvements at the depot form part of larger programme that will see 54 new, state-of-the-art trains start to enter service from 2024

These new, state-of-the-art trains will feature a walk-through design, latest audio and visual real-time travel information, air conditioning and mobile device charging points. Thirty-three of the new trains will replace some of oldest rolling stock, which are more than 30 years old and coming to the end of their design life, while 21 additional trains will boost capacity across the DLR network.

Housing Infrastructure Funding

We have received confirmation from the Government to activate an option to purchase eleven additional trains which are funded through the Housing

Infrastructure Fund. This will provide additional capacity and unlock further housing benefits in the Royal Docks and Isle of Dogs. We are currently finalising negotiations with the supplier for the delivery of these trains.

Piccadilly Line Upgrade

Rolling Stock

In January, Siemens Mobility completed all works at the test track in Wildenrath in Germany, including installation of third and fourth rail power upgrades and building of a platform for one-person operation. Testing will start on the track to ensure all upgrades are functioning correctly ahead of the first train arriving there for dynamic testing in the summer.

In March, the first-in-type driving motor car body shell was completed by Siemens. The car body is now ready to enter the painting process. This keeps us on target for the first train to be completed and transferred to the test centre in Wildenrath to start commissioning tests this autumn.

One Person Operation CCTV

In February we delivered 22 out of 44 power connections in the communication equipment room, a significant step towards enabling train and platform CCTV to be installed. This marks the completion of 50 per cent of planned installations. Once completed, this work will enable the one-person operation and off-train communications equipment to be installed. One person operation CCTV is a safety related system that allows the train operator to view passengers along the platform at the interface with the train.

Depots and stabling

Enabling works continue at Northfields and Cockfosters depots to prepare for the start of major upgrades to provide maintenance facilities for the new trains.

As outlined in our Investment Programme Report Quarter 3 2022/23, the depots concept designs had to be updated as the original wheel lathe design could not be delivered. The programme delays from this have caused knock-on impacts to the depot's migration plan with this now misaligned to the train introduction dates and migration strategy. The team are continuing to work through ways of potentially mitigating this issue and the resultant schedule and cost impacts.

4 London Underground

Train Systems

Key successes this quarter

Across all lines there has been sustained strong performance of routine works in track and fleet overhauls, delivering to plan and meeting strategic milestones. In addition, the Central Line Improvement Programme (CLIP) had a major success in achieving full design sign-off for the very complex multi-system renewals work. Our drive to reduce the environmental impact of our train systems continues; the CLIP design sign-off includes LED lighting and a new power system that reduces energy consumption, delivering regenerative energy back to the network. We have also

delivered LED lighting on 16 Bakerloo line trains, with further trains due to be completed in 2023/24.

Infrastructure Renewals

Key successes this quarter

Plaistow substation roof replacement project has installed the new roof to replace the old one containing asbestos and is 5 months ahead of programme due to strong project management. This was achieved within the agreed Project Authority and with a £200k saving to budget. We have also seen positive progress on the rolling renewals programmes, with communication systems renewals completed at King's Cross St. Pancras and two further Jubilee line escalator refurbishments delivered to plan. In addition, there has been significant progress on survey work to facilitate further delivery in 2023/24.

Enhancements

Step-free access

We have secured third-party funding to support the design of an improved step-free scheme at Hounslow West and delivery of additional step-free access to King's Cross St. Pancras station on the south side of Euston Road.

Following the publication of our step-free access consultation, we are continuing the process to develop a prioritised list of different step-free options, including which stations we carry forwards to feasibility. This takes into account the results of the consultation as well as funding considerations and complexity of schemes. This work will be delivered during 2023/24.

Colindale

Following the announcement in January that the GLA was successful in securing funding from the Government's Levelling Up Fund, we are undertaking a refresh of the project's business case for approval by the DfT to make this agreement unconditional. We are undertaking updates to the programme/closure requirements and the associated pre-construction and internal governance processes, ahead of getting project authority to proceed with letting the construction contract. Work is programmed to commence on site in early 2024.

Leyton

Following the announcement in January that the GLA was successful in securing funding from the Government's Levelling Up Fund, we are undertaking a refresh of the project's business case for approval by the DfT to make this agreement unconditional. The concept design has been accepted on time and to budget, and subsequently Stage Gate 3 approved. Contract award for detailed design with Early Contractor Involvement to deliver a construction ready scheme will be let in Q1 2023/24 with planned completion by Q4 2023/24.

List of appendices to this report:

Exempt supplementary information is included in a paper on Part 2 of the agenda.

List of Background Papers:

None

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