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22 October 2021

Dear Caroline,

It has been another important month for the project as we continue to remain on track to open the railway in the first half of 2022.

Trial Running of trains through the central tunnels has been in operation for a number of months now as part of the major railway trials taking place throughout this year, with 12 trains per hour (tph) in regular operation to build reliability and flush out any issues with our systems and signalling software. This has recently been paused for a two-week blockade, as planned, to allow for the vital commissioning of one of the last major configurations of the software.

The next phase of the programme will be Trial Operations, which involves testing more than 150 real-time scenarios to ensure the readiness of the railway. Work continues on completing the vital assurance work required for entry into this phase as well as ensuring that the central section stations are at the required state. Eight of the ten central section stations are now under the responsibility of Transport for London (TfL), and we are now focussed on the handover of Canary Wharf and the completion of the works at Bond Street. While it will be critical to analyse the performance of the latest software when we start running trains again after the current blockade, there is currently reason to believe that Trial Operations could commence in late November.

Safety

With the project in the final complex stages of delivering the railway, the focus remains on ensuring that it is completed safely, and the overall Health and Safety indicators remain within the parameters set by the programme. Since my last update, there has been a dedicated focus on safety at Bond Street following a small number of incidents at the station. Despite these incidents not causing any harm, they did warrant a review of the health and safety arrangements. This review is currently underway.

The number of COVID-19 cases across sites has generally remained constant and the situation remains closely and carefully monitored.

Trial Running

Trial Running has been positive and although there have been a number of expected settling-down issues encountered, the team has frequently delivered over 95% of the 12 tph mileage, which bodes well for the weeks after the current software commissioning period.

MOVING LONDON FORWARD



Commissioning of the software release, known as ELR100, has begun and for the duration of the works, Trial Running of 12 tph has been paused across the railway. The software will be one of the last major configurations before revenue service, and the assurance and commissioning will take two weeks to complete. It is expected that a number of the bugs identified by the project will be resolved with the new software. Following the commissioning of ELR100, Trial Running will resume, and the performance of the software will be assessed to determine the commencement of Trial Operations. Further reliability fixes have been identified and these will be accommodated during the Christmas period.

Alongside the commissioning of ELR100, the tunnel ventilation system will be updated and will almost be complete. Following this, there will be some final testing and software adjustments undertaken at Christmas to get the system to a level that can safely support passenger service.

The final railway integration tests to ensure all the components work together seamlessly have now been completed with the exception of the final integration of Bond Street. These tests covered the tunnel ventilation system, trains, software, signalling, platform screen doors and power systems. This testing is coming to an end and has been successful in generating the required assurance evidence and identifying the final modifications needed to complete the railway and get the right level of reliability for opening the Elizabeth line.

Trial Operations

The countdown process for Trial Operations is now underway and the programme is currently on course to commence the Trial Operations phase in line with the earliest possible forecasted date towards the end of November 2021. We will be undertaking a staged approach to Trial Operations to build greater resilience into the railway and to allow for the earliest commencement of passenger services next year.

Eight of the ten central section stations are now under the care of TfL and are ready to support Trial Operations. The next station to be handed over in the autumn is Canary Wharf where final modifications to the safety systems are being carried out. Bond Street has achieved Staged Completion 2 (SC2) and met its requirements to support Trial Operations. This means that the station is ready for full scale passenger evacuation and emergency intervention. This is the minimum requirement needed for the railway to enter into passenger service. Options to secure its completion and handover are currently being assessed.

With stations now in an advanced state, Tier 1 contractors on our sites are beginning to demobilise. To date, Tier 1 contractors from Farringdon, Tottenham Court Road and Woolwich stations have started the process and it is expected that those at Paddington and Liverpool Street stations will follow by the end of October.

Focus and Challenges

The closure of dependencies, which is outstanding assurance work, are being worked through. Crossrail has identified a number of dependencies that could be mitigated for entry into Trial Operations, if required, with final assurance evidence arriving after the current period for the commissioning of the ELR100 software. There is confidence in the project that all of the assurance work required to allow for the commencement of Trial Operations will be completed in the coming weeks.

Completion of the assurance activities related to the tunnel ventilation system is a key focus for the programme and therefore the project has a dedicated resource in place to support the production and the review of the tunnel ventilation system safety case. In addition to this stream of work, there are further planned changes to the tunnel ventilation system that are scheduled to take place before the end of the year.



With commissioning of the ELR100 software in the early stages and its successful implementation critical to entry into Trial Operations, it is being closely monitored by the Plateau 1 team and the leadership at Crossrail.

As the programme continues to make positive steps towards the opening of the Elizabeth line, there is a real focus on reliability growth across the railway to ensure that there is a safe and reliable service from the opening of the Elizabeth line.

Operational Readiness

The Public Performance Measure in period 6 was above target, achieving 95.6%, which is consistent with the previous period and compared favourably versus the rest of the industry. The Moving Annual Average (MAA) at 95.3% also remains above target.

The gradual transition of the Liverpool Street to Shenfield service to a full Full Length Unit (FLU) operation, will recommence after the commissioning of the ELR100 software, which will allow for the FLU fleet to run through unhindered to Old Oak Common depot for maintenance.

The Operations training and assessment programme 'end to end' process review has been completed with benefits including a reduction in training time of two weeks.

Surface Stations

Following the completion of station works at Hayes & Harlington last month, Network Rail's station enhancement works on the west are largely complete. Enhanced station upgrade works are progressing in the east at Ilford and Romford. The glass façade is now complete at Ilford and lift cars have also been installed at both sites. The target for entry into service of both the new station buildings is February 2022 and Network Rail continues to monitor this to drive performance.

TfL is carrying out improvement works at Langley and Burnham stations on the west, separate to the Network Rail works, and these related works should be completed in the new year.

I look forward to attending the London Assembly Transport Committee session next month to provide a further update on the railway's continued progress.

Kind Regards,



Mark Wild
CEO