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Dear Alison,

Further to my previous update, we continue to build on the strong start to the year with significant progress being made across the programme in the last month. We remain on track to commence Trial Running this spring and subsequently commence passenger services in the central section of the railway in the first half of 2022.

We are currently in the final countdown to Trial Running and the programme's transition from construction to an operational railway. Entering into intensive operational testing will mark a pivotal milestone for the programme, during which the focus will be on building reliability in our systems, signalling and trains. Trial Running will also provide an opportunity for us to identify and mitigate any issues in our systems ahead of the Elizabeth line's opening and everyone is working hard to ensure we enter this phase of the programme at the earliest opportunity. Crossrail and TfL continue to work collaboratively to complete the asset assurance and Safety Justification process in advance of Trial Running. Whilst there is a lot to do, we are confident that these issues will be resolved so that we can commence intensive operations.

The past month has also seen significant progress in our efforts to complete and handover our newly built central section stations, with Farringdon becoming the first of our central London stations to transfer to Transport for London (TfL) on 5 March 2021.

Safety

There has been a good period of health and safety performance across the project with no reportable or lost time accidents on Crossrail. However, since the beginning of February there have been five High Potential Near Misses (HPNM). The reporting of HPNMs is encouraged and is important in our learning and continuous improvement safety culture.

On 2 February, at the reception road of the Plumstead head shunt area, the leading trailer of an engineering train derailed at the points, which were set against the slow speed move. On 3 February, at Bond Street, operatives were stopped by a supervisor while using a reciprocating saw in an unsafe manner to cut Heras fence panels. On 8 February, at Paddington, an operative cut an incorrect cable that was fortunately not live at the time. On 9 February, a platform screen door at Paddington was found three quarters open without a 'Closed and Locked' signal. On 25 February, during Dynamic Testing (DT), a test train was given the wrong movement authority and proceeded to travel westwards out of Plumstead Siding One. Whilst no harm was caused in any of these

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incidents, we continue to treat HPNMs with utmost seriousness and all incidents are investigated, with lessons learnt implemented to limit re-occurrence.

Crossrail has successfully launched the Entry into Trial Running Health and Safety Campaign. This is an extensive briefing campaign being disseminated across the whole programme, including the supply chain, stakeholders and infrastructure managers. The objective is to ensure everyone understands the changes to the rules and ways of working as TfL. The campaign briefings will continue up to Trial Running.

Trial Running plans have also been evaluated by the Silver Response Team to ensure suitable coronavirus pandemic mitigation measures will continue to be implemented. This has confirmed that arrangements, such as those at the critical Route Control Centre, are sufficient to protect all staff who are required to enable a seamless transfer from Crossrail to the infrastructure manager.

Central Section Progress

Trial Running is vital to unlocking the pathway to passenger service. It involves multiple trains operating in the central operating section to demonstrate that the railway is capable of reliably meeting the capacity and other requirements, whilst the final works to the stations are completed.

The initial phase of Trial Running will see a limited number of trains in operation on the central operating section to allow the infrastructure manager, TfL to undertake a number of activities to achieve full readiness. The number of trains will gradually increase before further activities such as timetable operation, timetable demonstrations and integration testing can be undertaken.

Outstanding works have been scheduled into the programme and will take place during the Trial Running period. These works include a combination of project maintenance, snagging and enhancements and some testing and commissioning activity.

There will also be four train and signalling software upgrades during Trial Running and time has been allocated in the Trial Running programme for each to be tested as appropriate and deployed.

There is now a full complement of central section stations having reached the Staged Completion 1 (SC1) Enactment state after Paddington station achieved this milestone last month. This means all central section stations now have their assets assured and certified as ready to support Trial Running.

Reliability continues to be built and mileage accumulated through System Integration Dynamic Testing (SIDT) in the central operating section. The upgraded software, which will be used for Trial Running, has been uploaded and is currently in use. No significant issues have been identified during testing that cannot be incorporated into future software updates, however, it is only in Trial Running that the system will be tested with a full-service frequency running in the central section.

On 5 March 2021, Farringdon station became the second of the new Elizabeth line stations to be handed over to TfL and the first to LU as infrastructure manager, following the successful completion of testing and integration work. Working with the station's completion team, the experience and knowledge gained of the process from Farringdon station will be implemented and applied to the remaining stations. Custom House was the first Elizabeth line station to be handed over to TfL last year.

Tottenham Court Road and Paddington stations are both less than 12 weeks away from being handed over to TfL, with Tottenham Court Road expected to be handed over in early May. This follows both stations achieving their T-12 landmark in February. As a result, works at the stations are now primarily focussed on the extensive testing and commissioning of systems ahead of the



Elizabeth line opening. Reaching this important milestone allows the contractor to commence demobilisation across the site and enables Crossrail to start the process of handing the station over to TfL.

Works to achieve a number of additional, interim states of completion in order to support Trial Operations and entry into revenue service also continue, with five stations having achieved their Substantial Completion 3 (SC3), marking the substantial completion of construction works.

Focus and Challenges

There remains a huge focus and effort across the programme to progress the necessary assurance documentation and to close out the outstanding assurance work (dependencies) required for entry into Trial Running. The completion of this work is essential for the vital safety and assurance documentation to achieve 'accepted' status. There is significant work involved and it is not without challenge, but there is an agile, daily management process in place between the technical and delivery teams. The status of closure is formally reviewed in our readiness for Trial Running meetings – operated on a T-Minus basis – with clear requirements for required confidence in the closure programme for dependencies, and when actual closure is necessary. Entry into Trial Running is vital but must be completed diligently and to the highest safety standards.

Completion of this assurance work, culminating in the acceptance of the Safety Justification assurance documents for each asset, will enable the handover of the routeway assets to TfL when the railway transitions to an environment governed by the Railways and Other Guided Transport Systems (Safety) Regulations 2006 (ROGSs).

Work has commenced to refine and further strengthen the Delivery Control Schedule (DCS) which constitutes the Crossrail delivery plan we are managing to and reporting against. The DCS review will build upon the existing logic, enabling more granular information to be incorporated for upcoming phases and reflects on work that has been undertaken. This will further define the conditions required for effective delivery of Trial Running as well as successful transition into Trial Operations and Revenue Service. It will also provide an opportunity to consider lessons learnt in the build-up to Trial Running, strengthening previous planning assumptions on assurance processes. This will not be a full re-baseline of the schedule but instead a targeted refinement of components of the schedule where further information is now available. This review will also provide the opportunity to further assure the critical path and delivery of key dates for the remainder of the programme, providing the platform for robust performance tracking over the coming months.

The review of the DCS will take place over the course of the next few months. The DCS1.1 will remain the management and reporting baseline until such time as a refreshed DCS has been approved.

Operational Readiness

The Public Performance Measure (PPM) reported in the period between 10 January – 6 February was 95.7%, with the Moving Annual Average trend continuing to improve and now at 95.8%, the highest since TfL Rail took over operations in 2015.

The nine-car Full Length Units (FLU) introduced in December 2020 to the Reading route have seen the expected improvements in reliability during this latest period. The majority of the failures were software-related, predominantly within the on-train ETCS signalling system. The next reliability improving software, including improved ETCS performance, has been delivered and will be applied to the fleet during March 2021.

Training of operations and maintenance staff continues against a tight plan, but coronavirus remains the biggest risk to both trainers and trainees. Lateral flow Covid testing has been introduced on daily basis at the Tunnelling and Underground Construction Academy (TUCA) training facility and twice

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weekly at Romford Route Control Centre to bring an additional level of confidence to trainers and trainees.

Traffic Managers and Real Time Infrastructure Managers continue to gain experience during SIDT, benefits have included testing of the latest on-train software which will be used for the initial Trial Running period.

Collaboration amongst Crossrail project and TfL maintenance teams has reduced the impact around the issues of electrical isolations and impact on service provision for Trial Running from Plumstead Depot. During Trial Running there are significant requirements for access to the railway to complete project work. These will need to be managed alongside maintenance activities and will reduce the build-up of train mileage during Trial Running.

Network Rail

Network Rail's major upgrade works to surface stations on the eastern and western section of the railway continue with overall completion expected throughout 2021. Over the past month, the focus at Acton Main Line has been on snagging works for the new ticket hall and step-free access provided by lifts, as well as the completion of assurance and safety documentation. West Ealing and Ealing Broadway stations are also well advanced and at Southall, works continue to the new station building and platform steelwork. Network Rail is making progress with the installation of blockwork and screed for the new station building at Hayes & Harlington as well as the installation of passenger lifts to the platforms. Works at West Drayton have also focussed on the new station building as well as enabling works for the refurbishment of the canopy on platform 4/5. On the eastern section, Ilford and Romford stations have been undergoing station building works as well as lift machine room construction and platform information screen installation.

The progress we have seen over the past month, particularly at our central section stations, highlights the clear path we have towards completing the Elizabeth line and commencing passenger services in the first half of 2022. We have a highly motivated team who continue to work hard to get the job done and deliver this railway for both London and the UK as a whole.

Kind Regards,



Mark Wild
CEO