

This paper will be considered in public

1 Summary

- 1.1 This paper provides an update on the status of the readiness of the Infrastructure Managers (IM) for the operations and maintenance of the Elizabeth line railway after handover from Crossrail and of the remaining work on the Crossrail project.
- 1.2 The Elizabeth line will launch in the first half of 2022 with a new passenger service between Paddington to Abbey Wood, through new tunnels under central London. The launch will bring immediate benefits to passengers travelling between these stations with 12 trains per hour operating in each direction.

2 Recommendation

- 2.1 **The Board is asked to note the paper.**

3 Elizabeth Line Operational Readiness

- 3.1 The second phase of Trial Operations commenced on 28 January 2022. This phase involves a range of organisations, including TfL and London Underground, MTR Elizabeth line (as the operator), and Network Rail collaborating on the response to trial scenarios along with thousands of staff volunteers. Emergency services including the British Transport Police, London Fire Brigade and London Ambulance Service are also involved, demonstrating how they would respond to incidents on the network and in stations.
- 3.2 The mass volunteer events have involved over 2,000 staff volunteers and have included the evacuation from a train at Custom House, evacuation from a train outside Farringdon station, and evacuation from a train into a tunnel via the emergency access shaft at Limmo Peninsula. The mass evacuations have been positive with all observations and learning informing subsequent exercises.
- 3.3 Following the completion of Trial Operations, there will be a period dedicated to timetabled running, closely mirroring the Elizabeth line service timetable. This will be the final stage before the railway will open and its duration will be determined by the ability to demonstrate improved reliability across the railway.
- 3.4 Performance has generally been positive following the completion of the tunnel ventilation system works and commissioning of ELR110 signalling software. Although some systemic issues remain, further improvements in performance are expected when the next software upgrades are rolled out.

- 3.5 TfL Rail delivered an improved Public Performance Measure of 94.3 per cent during period 11 (9 January – 5 February 2022). Performance on the east was 94.9 per cent, its highest since period 7, despite issues with the class 345 full-length trains experiencing emergency brake applications approaching Stratford. The west delivered 93.5 per cent and, while down on last period, still remains higher than previous performance. The overall Moving Annual Average trend at 94.6 per cent remains ahead of target.

4 Crossrail Update

- 4.1 With the project in the final complex stages of delivering the railway, the focus remains on ensuring that it is completed safely. The programme continues to manage the coronavirus pandemic risk with measures implemented by the supply chain remaining available to implement at short notice should there be a change to the risk profile and data.
- 4.2 During Trial Operations, necessary works have been undertaken including the commissioning of the tunnel ventilation system software upgrades before Christmas 2021, the latest signalling software update, the commissioning of the latest control and communications software and the replacement of voltage transformers.
- 4.3 There are further upgrades planned for the trains and signalling software over the 2022 Easter period, including the commissioning of the ELR200 software and Alstom 5.6 and 5.7 software upgrade. These upgrades are expected to provide increased operational reliability of the trains, routeway and signalling systems.
- 4.4 Work continues on completing the necessary final safety assurance documentation and relevant assurance activities to support Revenue Service. Progress is being monitored against the schedule on a weekly basis.
- 4.5 Bond Street, the remaining station to be transferred to TfL, has been decoupled from the opening of the railway. Good progress continues to be made at the station but it is unlikely that it will be fully operational until after the opening of Stage 3.
- 4.6 With the majority of central section stations now in an advanced state, Tier 1 contractors have demobilised from eight of the central section stations. Crossrail has been undertaking the role of Tier 1 contractor at Bond Street and will remain until works are substantially complete. Crossrail is also looking at the way it will continue to work on delivering the full capability of the railway, including reducing the size of the organisation that will deliver the final stages of the programme.
- 4.7 Network Rail enhanced station upgrade works on the East continue at Ilford and Romford. Ilford's entry into service is currently forecast for the summer, although this is under review pending the resolution of the structural issue in relation to the ticket hall slab. Romford station remains on track to enter service in the coming months. Network Rail continue to assess the programme for both stations and their entry into service.

List of Appendices:

None

List of Background Papers:

None

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