TRANSPORT FOR LONDON

BRIEFING NOTE

Subject: Weekly Mayoral update on Crossrail / Elizabeth line

Date: 22 February 2018

1 Purpose

1.1 Weekly update to the Mayor outlining progress and challenges ahead of the launch of the Elizabeth line.

1.2 The Mayor is asked to NOTE this briefing.

2 Headlines

2.1 Crossrail Ltd (CRL) has now finalised its revised delivery schedule of the Master Operational Handover Schedule (MOHS) 2018. It has been developed with input from the project’s contractors, future infrastructure maintainers and includes a revised schedule from Bombardier Transportation (BT).

2.2 All partners are being asked to sign up to the MOHS to affirm the commitment to achieving the dates which set out delivery of the Elizabeth line Stage 3 in December 2018. An update on the key commitments and dates will be provided in next week’s note.

2.3 On 20 February the Mayor with Mike Brown and the Deputy Mayor met Pierre Beaudoin (Chairman of the Board of Bombardier), Laurent Troger (President, Chief Technology Officer and Chief Operating Officer, Transportation) and Per Allmer (President, Western Europe, Middle East & Africa, Transportation) to obtain Bombardier’s commitment to delivering the rolling stock, signalling integration and depot for the project.

2.4 TfL’s Programme and Investment Committee meeting on 21 February discussed the current status of the project from a cost and schedule perspective. A “deep dive” informal session for TfL Board members is being organised for early March by TfL Secretariat.

Manifesto commitment(s)

Not applicable

Draft Mayor’s Transport Strategy (MTS)

A good public transport experience

Proposal 57: The Mayor, through TfL, will work with the DfT to open the Elizabeth line in 2019, with services initially providing 24 trains per hour through central London and increasing in frequency during the 2020s as demand requires.
2.5 This week Bombardier is testing the European Train Control System (ETCS) -to-
Communications Based Train Control (CBTC) transition on their test track. Stopping
accuracy tests (to ensure the train stops in line with platform doors) continued at
Melton and the integration testing of information that feeds the drivers displays (the
‘DMI’) continued on the test rigs at Derby.

3 Costs

3.1 The cost position is formally calculated and communicated on a periodic (4-weekly)
cycle and so is unchanged this week. Discussions took place between CRL and
Sponsors (DfT and TfL) at the Crossrail Sponsor Board on 22 February, regarding the
quantum of additional funding (beyond the TfL contingency of £600m) likely to be
required to complete the project. The information collated from this discussion will be
reviewed and an update will be provided in next week’s note.

4 Programme and Schedule

4.1 Following the start of the energisation sequence of Zones 1&2 (eastern tunnel section)
on 1 February, energisation of the overhead line commenced on 14 February. Short
circuit testing between Abbey Wood and Plumstead is ongoing.

4.2 On 17 February a C345 was diesel-hauled through the tunnel to Abbey Wood to be
ready to commence dynamic testing in the eastern section on 25 February. In addition
a C345 was taken into Paddington on 19 February as part of testing for Stage 2 (May
2018).

4.3 CRL is actively examining the case for potential action it could take against

5 Industrial relations

5.1 Unite the Union has reconsidered its position on second tier payments and completion
bonuses, with regard to a dispute involving Balfour Beatty electricians working at
Woolwich. The strike action planned for 21 February was cancelled and a further
meeting between Balfour Beatty and Unite will take place on Friday 23 February. The
previous strike action on 10 January, 30 January and 7 February had some minor
impact on productivity.

6 Appendix

- Appendix A: Table of key risks and issues
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<table>
<thead>
<tr>
<th>Risk / Issue</th>
<th>Key date</th>
<th>Mitigation / Action</th>
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<tbody>
<tr>
<td><strong>Stage 2</strong></td>
<td></td>
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<tr>
<td>Issues arising from integration of on-board European Train Control System (ETCS) with infrastructure and associated delays to Regulatory Approvals</td>
<td>Initial ETCS integration testing started 12 Jan 2018</td>
<td>Revised BT programme was presented on 9 Jan 18. Weekly high-level dialogue with BT and dedicated CRL Stage 2 integration lead in place. Alternative (Class 360s) units secured - contract signed - to cover any delay.</td>
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<tr>
<td><strong>Stage 3</strong></td>
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<tr>
<td>Timely provision of design assurance information, asset data, key operations/maintenance information.</td>
<td>Handover 5 Aug 2018</td>
<td>Design assurance slowed in the period so will receive further focus at close out meetings delivery of asset information including O&amp;M requirements remains cause for concern. Escalation with Tier 1 contractors.</td>
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<td>Risk of delays to the Bombardier schedule for installation of the Class 345 on-board TCMS / CBTC (v 6.1.1 &amp; v7) impacts activities for Dynamic Testing.</td>
<td>Train tested &amp; delivered to central section 29 Jan 2018</td>
<td>CBTC Testing started at Old Dalby. Revised plans developed to continue testing to build contingency to start of testing in central section in February 2018.</td>
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<td>Risk of insufficient time to undertake trial operations activity.</td>
<td>Trial Ops 09 Sept 2018</td>
<td>Complete infrastructure and testing as early as possible to allow unimpeded trial operations. Prepare station handover plans.</td>
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<td>Risk of LU readiness being impacted by ongoing construction at stations, spares availability and completion of staff training.</td>
<td>Trial Ops 09 Sept 2018</td>
<td>LU Readiness Board overseeing this activity.</td>
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<td>Preferred delivery option and programme for wifi and 4G for passengers from stage opening and maintenance teams from handover.</td>
<td>Wi-Fi available to maintainers 5 Aug 2018, Wi-Fi for passengers 9 Dec 2018</td>
<td>Confirm programme and way forward. Scope and confirm funding.</td>
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