



### CROSSRAIL BOARD

**Minutes of the Meeting of the Board of Directors of Crossrail Limited  
Held on Thursday 21 June 2018 at 13:00  
28th Floor Boardroom, 25 Canada Square, Canary Wharf, London E14 5LQ**

<b>Members:</b>	<b>In Attendance:</b>	<b>Apologies:</b>
Terry Hill <i>Non-executive Director (Chair)</i>	Sarah Allen <i>Head of External Affairs</i>	Terry Morgan <i>Chair</i>
Pam Alexander <i>Non-executive Director</i>	Funmi Amusu <i>Assistant Company Secretary</i>	
Michael Cassidy <i>Non-executive Director</i>	Dawn Barker <i>Head of Human Resources</i>	
Mathew Duncan <i>Finance Director</i>	Susan Beadles <i>Head of Legal Services and Company Secretary</i>	
Phil Gaffney <i>Non-executive Director</i>	Lucy Findlay <i>Chief of Staff</i>	
Robert Jennings <i>Non-executive Director</i>	Paul Grammer <i>Commercial Director</i>	
Chris Sexton <i>Technical Director</i>	Anne McMeel <i>TfL</i>	
Mark Wild <i>Non-executive Director</i>	Andy Pitt <i>DfT</i>	
Simon Wright <i>Chief Executive</i>	Howard Smith <i>Operations Director</i>	

The meeting was quorate.

	<p>Terry Hill welcomed Board members and attendees and <b>NOTED</b> that best wishes were being sent to the CRL Chair, Terry Morgan, [REDACTED]</p> <p><b>Directors' Interests</b></p> <p>Members were reminded that any interests in a matter under discussion must be declared at the start of the meeting, or at the commencement of the item of business.</p> <p>There were no interests declared in relation to the business of the meeting.</p> <p><b>Informal Session</b></p> <p>It was <b>NOTED</b> that an informal session of the Board had been held earlier in the day which was attended by Anne McMeel – additional Transport for London (TfL) nominee Non-executive Director from 1 July 2018 and Andy Pitt – additional Department for Transport (DfT) nominee Non-executive Director from 1 July 2018.</p>
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	<p>The Board had received detailed briefings on the following topics:</p> <ul style="list-style-type: none"> <li>• <b>Schedule Overview</b> – progress across the programme including updates on readiness for Stage 3 opening, the MOHS 2018 strategy; dynamic testing; the Crossrail Integration Facility; RAB(C); preparations for Handover; and video footage of the platform screen doors being tested at Woolwich; and</li> <li>• <b>Close Out Organisation and Transition</b> – an update on close out works activity; the project completion process; the Crossrail integration project; and the close out organisation.</li> </ul> <p>The Board had <b>NOTED</b> that a proposal on the Close out organisation would be submitted to the next Board meeting.</p>
BD MIN 180524	<p><b>Minutes of the Meeting of the Board held on 24 May 2018</b></p> <p>The Board <b>APPROVED</b> the minutes of the meeting held on 24 May 2018 for signature.</p>
BD AC 180621	<p><b>Actions and Matters Arising</b></p> <p><b>19.019</b> – [REDACTED] – The Board <b>NOTED</b> that [REDACTED] products were used extensively across the project and [REDACTED]</p> <p>[REDACTED]</p> <p><b>19.023</b> – [REDACTED]</p> <p>[REDACTED]</p> <p><b>19.025 – Written Ministerial Statement (WMS)</b> – the Board <b>NOTED</b> the verbal update on the WMS and the possibility of this moving to the first week in July 2018.</p> <p><b>19.026 – New Deputy Mayor for Transport</b> – It was <b>NOTED</b> that Heidi Alexander had been taken on a site visit of Tottenham Court Road by Chris Sexton, in Terry Morgan's absence.</p> <p>The Board <b>NOTED</b> that all the other 'due' actions had either been completed or were covered by the agenda for the day's meeting.</p>
BD CBR 180621	<p><b>Crossrail Board Report Period 2</b></p> <p>Simon Wright introduced the Board Report for Period 2 highlighting that:</p> <ul style="list-style-type: none"> <li>• On 20 May 2018, the first TfL Rail Service departed from Paddington Station to Heathrow using the Class 360 units leased from Heathrow and on 21 May 2018, the first Class 345 unit departed from the same station towards Hayes and Harlington. The achievement of Stage 2 Phase 1 on time demonstrated that lessons were learned from Stage 1;</li> <li>• Testing in the tunnels continued in Zones 1 and 2 and the completion of physical works in Zones 3 and 4 progressed significantly in the Period,</li> </ul>

with the end-to-end energisation of the traction power system for the first time. With short circuit testing completed after the Period end, dynamic testing was successfully extended to Zones 3 and 4 on 11 June 2018 as planned;

- There were further schedule challenges in Period 2. To ensure on time opening of the railway, the time required to complete the physical works, testing and commissioning and the associated impact on handover, trial running and trial operations had been actively reassessed. Consequently, the plan to deliver Stage 3 on time was modified. Starting in September 2018, the first phase (Pre-Trial Running) would provide assurance results in preparation for the Combined Elizabeth Line Trials, due to commence at the beginning of October 2018. These trials would run until the beginning of December 2018 before Passenger Services commenced in the Central Operating Section. This modified sequence was designed to allow more time to resolve any issues that arose during testing in addition to providing time for the train and signalling software to be developed to the required level;
- It continued to be challenging to manage the balance between testing and construction and a review of the current scope of testing was underway. There were also challenges in securing the required access on the east and west surface sections to undertake critical installation and testing activity of the transitions. Active support from the Sponsors had been requested;
- HSPI further increased to a new record high of 2.64 (compared to a target of 2.20). This showed a continuous improvement since Period 12;
- At the end of Period 2, the project was 93.2% complete against a plan of 94.7%;
- The AFCDC was at £12,723m, slightly up by £0.2m from Period 1. Discussions with the Sponsors continued with regard to funding of the project above IP2; and
- Crossrail was once again recognised for its high standards in innovation, design, construction and adding benefit to the community by winning the Greatest Contribution to London Award at the 2018 ICE London Civil Engineering Awards.

The Board **NOTED** that a review of the testing/ construction configuration including options and recommendations on schedule challenges and a re-working of the Stage 3 readiness checkpoints would be presented to the next Board meeting on 19 July 2018.

### **Are We Safe?**

It was **NOTED** that:

- All the 11 key contracts achieved a HSPI score of 2.20 or above with C412-Bond Street matching C405-Paddington's score of 2.94, the highest score ever achieved;
- The RIDDOR rate remained at 0.09 and the Lost Time Case (LTC) rate reduced to 0.16 (from 0.17 in Period 1);

- In the Period, there were 3 significant incidents – 1 RIDDOR 7+ Days and 2 High Potential Near Misses; and 15 injuries were sustained, the largest category (4 injuries) being slips, trips and falls.

### **Are We Within Funding?**

Mathew Duncan presented a summary of financial performance for the Period. It was **NOTED** that:

- The AFCDC in Period 2 was at £12,723m and £277m of risk was utilised to fund Delivery, Indirect and Property cost increases;
- Of the £178m QRA total, £165m was currently Programme risk not allocated to projects. URTs had decreased by £280m since last Period. If all £106m of URTs were approved, the QRA total would reduce to £72m;
- In the Period, CRL had spent £52.2m above the 2018/19 Business Plan. The Business Plan was set in Period 6 2017/18 and since then, there had been a significant increase to the AFCDC (£0.4bn) and delays to MOHS dates for the key contracts, therefore variances to the Business Plan were to be expected;
- The overspend in the Period was predominantly: [REDACTED]; [REDACTED]; due to lower than expected productivity, additional scope, access delays and cost increases for [REDACTED]; [REDACTED]; other net overspends [REDACTED]; offset by the earlier than forecast receipt of OSD income [REDACTED] and unspent Programme risk due to cost being reported in the Sectors (£14.1m); and
- The overall contingency budget of £292m was sufficient to cover the risk exposure of £178m by £114m.

### **Commercials Update**

Paul Grammer updated the Board on commercial performance in the Period. The Board **NOTED** that:

- CRL had been given the opportunity to comment on Jacob's final draft independent report on costs which was scheduled to be formally issued to the Sponsors on 25 June 2018. Extracts from the executive summary of the report were **NOTED**;
- The total gap between CRL's and its contractors' views of target had decreased by [REDACTED] and the total forecast gap in forecast defined cost increased by [REDACTED];
- There was evidence of some further cost pressures on some key contracts. [REDACTED] continued to increase in cost forecast as a result of pressure to complete works in time for the combined Elizabeth line trials in October 2018. [REDACTED]

[REDACTED] However, the full requirement needed to be reviewed, assessed

and managed through the trend process; and

- Discussions on final account settlements had also commenced with C530-Woolwich, C631-Platform Screen Doors and C360-Shafts and Portals. This was in addition to Bam, Ferrovial, Kier (BFK) for C435-Farringdon Station and Laing O'Rourke (LOR) for C422-Tottenham Court Road Station, C502-Liverpool Street Station and C520-Custom House.

#### **Network Rail On Network Works and Funding**

- The Forecast Final Outturn Cost (FFOC) remained at £2,376m reflecting the grand total cost position of £2,835.4m less the non-NR programme costs (£305.4m for accelerated renewals/ traction power/ other non-Crossrail related spend in addition to the £154m combined cash funding from the DfT, CRL and NR). CRL had assessed the grand total cost mid-point sensitivity to be +£73.5m;
- Total Funding secured remained at £2,835.4m. NR was seeking an additional £9.8m of recoveries in relation to other NR projects and tax/ insurance. NR's application for additional funding (£54m) from the NR Portfolio Board (CP5 contingency) was approved in principle and was currently awaiting formal confirmation from the DfT;
- NR cumulative (gross) spend (excluding adjustments for traction power/ accelerated renewals) was £2,675.4m and represented 95% complete. The Period 2 Cost of Work Done (COWD) was £11.5m – lower than forecast due to works being de-scoped from the Costain (Anglia Civils) contract;
- Tenders had been returned for both Packages 2 and 3 for the Enhanced Stations (West) and continued to be assessed by NR. [REDACTED] and, at present, NR was unable to proceed with awarding these packages. CRL was working closely with NR to ensure all options were considered and major activity planned during Christmas possessions could be undertaken and the December 2019 delivery achieved. In the meantime, the enabling works packages continued and to further mitigate potential schedule delay, NR had commenced procurement of essential long-lead items which would be 'free-issued' to suppliers upon contract award; and
- Additionally, NR was yet to secure the necessary access between December 2018 and May 2019 for construction works due to a dispute with Great Western Railway who had rejected the application for a 2-track Sunday service on the route. DfT assistance on these matters had been requested.

#### **Are We on Time?**

Simon Wright had presented an overview of delivery performance during the informal session held earlier in the day. The following current issues were **NOTED** by the Board:

- Progress of 0.6% was achieved in the Period against the plan of 0.8%;
- During the Period, 7 out of 9 anchor milestones were delivered (cumulatively 26 vs. a plan of 37) including C660 dark fibre handover in Zones 3 and 4; the energisation of the Westbourne Park ATS; completion

of the traction earthing and bonding in Zones 3 and 4; completion of reconfiguration of the optical fibre network in all zones; opening of Stage 2 Phase 1 (Heathrow to Paddington); completion of the draft COS Safety Case; and energisation of the traction power between Kensal Green to Westbourne Park;

- The On Network Works were 95% complete. Activities noted in the Period included West inner stations DOO CCTV system handed over to RfL Engineering and Maintenance; Abbey Wood station building handed over to NR Route; and OLE works at Westbourne Park completed for interface with the central section;
- Following the MOHS rebaseline in February 2018, schedule pressures continued to be felt across most Stations contracts. Only 49 out of 76 measured project milestones were delivered. Although many of these missed milestones did not affect MOHS and the completion of dynamic testing, they still needed to be addressed;
- As at the end of Test Window 3, a total of 60 out of 646 tests were carried out. Of the 60 that were done, 28 were successfully completed, with 8 failures which would require additional rectification work to be carried out. In total, 32 were required to be retested. In readiness for Test Window 4, the software for the signalling infrastructure systems had been updated. The update included all functionality for Stage 3 operation (including for possession management, speed restrictions and yellow plant operation) and increased significantly the scope of tests that could be undertaken;
- The delivery of Siemens communications software continued to be very challenging and was a priority focus for the CRL Executive. Concerns around installation resources had materialised in the Period following isolated failures by Siemens to optimise available weekend works. The emphasis remained on the handover of assets by Stations and Systemwide to Siemens to allow them to maintain their schedule to completion;
- Energisation of the non-traction power supply across each of the sites remained critical and under the scrutiny of the CRL Executive;
- The overall production of Installation Release Notes (IRN) (as well as other key documents) to support handover of assets by the Tier 1 contractors remained critical. In addition to the resource challenge within the Tier 1 contractors to produce the evidence documentation, the slow progress of physical work had also resulted in slower production of IRNs. Close monitoring remained across all sites; and
- The provision of asset data, O&M manuals and training materials by contractors in time to meet the Infrastructure Managers' (IMs) needs remained critical. All parties continued to work to accelerate the production of asset data and to make best use of it progressively as it became available. Further attempts to prioritise those documents essential to opening the railway were being made. Additionally, the IMs were assisting in highlighting quality issues early, particularly in regard to asset data preparation, in order to ensure that the information could be properly loaded into the asset databases.

### **Operations**

Howard Smith provided an update on key operations matters, highlighting

	<p>some of the issues relating to current operations, Stage 2, Rolling Stock for Stage 3, Stage 3 Operational Readiness and Stages 4 and 5.</p> <p>The Board <b>NOTED</b> that RFLI had now received its Safety Authorisation from the Office of Rail and Road (ORR).</p> <p>The Board <b>REQUESTED</b> greater visibility on reliability growth/ forecasting.</p> <p><b>Action:</b> Howard Smith</p> <p>The Board also <b>REQUESTED</b> that MTR be invited to present on their confidence level in the staged delivery of the Elizabeth Line.</p> <p><b>Action:</b> Howard Smith</p> <p><b><i>Are We Ready for Closeout?</i></b></p> <ul style="list-style-type: none"> <li>• Transition and closeout assumptions had been updated against the current MOHS and where challenges were identified, they were being highlighted and managed;</li> <li>• Year of Engineering events had been scheduled – Farringdon (15 June 2018); Whitechapel (7 July 2018); and Tottenham Court Road (9 July 2018); and</li> <li>• Plans to transition External Affairs responsibilities, including Community Relations, Press Office and Digital Media to TfL were being finalised.</li> </ul> <p>The Board <b>NOTED</b> the Board Report for Period 2.</p>
13/19	<p><b>CRLB 13/19 – Scheme of Authorities and Financial Controls</b></p> <p>Mathew Duncan presented proposed changes to the Scheme of Authorities to the Board for approval. The Board had requested a review of the existing controls to determine whether these could be tightened given the current sensitive financial position of the project.</p> <p>The Board <b>NOTED</b> that as CRL moved into the final stages of the project, it was essential to demonstrate that its governance procedures provided the adequate controls and oversight necessary for the project, as the AFCDC had exceeded IP2.</p> <p>The Board <b>APPROVED</b> the proposed revision to the Scheme of Authorities.</p>
14/19	<p><b>CRLB 14/19 – Crossrail Ltd Gender Pay Gap</b></p> <p>Dawn Barker presented a paper which addressed a request from the Board to review the lessons learnt on the gender pay gap by providing an overview of what CRL could have done differently to achieve better results and setting out recommendations to other large projects.</p> <p>The Board <b>NOTED</b> the lessons learnt and recommendations and how these would be communicated to other large projects.</p>
15/19	<p><b>CRLB 15/19 – Approval of Audited Financial Statements for the year ended 31 March 2018</b></p> <p>The Board received a paper seeking approval of the CRL Annual Report and Financial Statements for the year ended 31 March 2018, having considered the results of Ernst &amp; Young’s (EY’s) audit work and the recommendation of</p>

	<p>the CRL Audit Committee. The Board <b>NOTED</b> that [REDACTED].</p> <p>The Board considered [REDACTED].</p> <p><b>Action:</b> Mathew Duncan</p> <p>The Board discussed [REDACTED].</p> <p>[REDACTED] the Board:</p> <ul style="list-style-type: none"> <li>• <b>REVIEWED</b> the Annual Report and Financial Statements;</li> </ul> <p>Deferred decision on the steps below until the 19 July 2018 Board meeting and therefore:</p> <ul style="list-style-type: none"> <li>• <b>DID NOT APPROVE</b> the Annual Report and Financial Statements for the year ended 31 March 2018;</li> <li>• <b>DID NOT AUTHORISE</b> the Finance Director to sign the 'Directors' Report', 'Strategic Report' and 'Statement of Financial Position';</li> <li>• <b>DID NOT AUTHORISE</b> the Finance Director to sign the Representation Letter; and</li> <li>• <b>DID NOT AUTHORISE</b> the Finance Director to make any necessary minor amendments.</li> </ul>									
<p>16/19</p>	<p><b>CRLB 16/19 – Modern Slavery Statement 2018</b></p> <p>The Board was presented with a paper seeking approval of arrangements for compliance with the requirements of the Modern Slavery Act 2015.</p> <p>The Board <b>APPROVED</b> the publication of the 2018 modern slavery statement.</p>									
<p>17/19</p>	<p><b>CRLB 17/19 – Project Representative Report (P-Rep) Period 1</b></p> <p>The Board reviewed and <b>NOTED</b> the P-Rep Report for Period 1.</p> <p>Simon Wright provided a verbal summary of the issues that were expected to be raised in the Period 2 report which were <b>NOTED</b> by the Board. These included matters relating to: financials; Stage 2 Opening; Stage 3 Opening (Infrastructure &amp; Systems and Handover &amp; Operational Readiness); and Stages 4 and 5.</p>									
	<p><b>Minutes of Board Committees for Reference</b></p> <p>The Board received the following minutes for reference:</p> <table border="1" data-bbox="360 1760 1374 1899"> <tr> <td><b>Executive and Investment Committee</b></td> <td><b>EIC D 180516</b></td> <td>Simon Wright</td> </tr> <tr> <td><b>Audit Committee</b></td> <td><b>AUC MIN 180312</b></td> <td>Robert Jennings</td> </tr> </table> <p><b>Verbal Updates of Recent Board Committee meetings</b></p> <table border="1" data-bbox="360 1966 1374 2065"> <tr> <td><b>Executive and Investment Committee 13 June 2018</b> Matters covered by the Committee</td> <td><b>EIC D 180613</b></td> <td>Simon Wright</td> </tr> </table>	<b>Executive and Investment Committee</b>	<b>EIC D 180516</b>	Simon Wright	<b>Audit Committee</b>	<b>AUC MIN 180312</b>	Robert Jennings	<b>Executive and Investment Committee 13 June 2018</b> Matters covered by the Committee	<b>EIC D 180613</b>	Simon Wright
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	<p>were:</p> <p><b>Board agenda items:</b></p> <ul style="list-style-type: none"> <li>• Scheme of Authorities and Financial Controls</li> <li>• Close out Organisation and Transition Update</li> <li>• Modern Slavery Statement 2018</li> <li>• Approval of Audited Financial Statements for the year ended 31 March 2018</li> </ul> <p><b>Other items:</b></p> <ul style="list-style-type: none"> <li>• Crossrail Environment Management Review 2017/18</li> <li>• IT Requirements for the Close out Phase of Crossrail</li> </ul> <p><b>Audit Committee 08 June 2018</b></p> <p>Matters covered by the Committee were:</p> <ul style="list-style-type: none"> <li>• EY Audit Results Report</li> <li>• Crossrail Annual Report and Accounts</li> <li>• Crossrail Internal Audit Annual Report</li> <li>• Crossrail Audit and Assurance Update</li> <li>• Risk Management Presentation</li> <li>• Future Audit Committee Arrangements</li> </ul>	<p><b>AUC MIN 180608</b></p>	<p>Robert Jennings</p>
<p><b>AOB</b></p>	<p>The Board <b>NOTED</b> that it was Pam Alexander, Michael Cassidy and Terry Hill's last meeting and in Terry Morgan's absence, Simon Wright thanked them for their significant contribution to the project.</p> <p>The Board also thanked Sarah Allen who would also be leaving CRL shortly.</p>		
<p><b>NEDs Only Session</b></p>	<p>Non-executive Directors provided feedback on the day's meeting.</p>		

Signed by:

*Approved by the Board*

Terry Morgan  
Non-executive Chairman

