



**CROSSRAIL BOARD**

**Minutes of the Meeting of the Board of Directors of Crossrail Limited  
Held on Thursday 20 June 2019 at 11:00  
10Boardroom01, 5 Endeavour Square, Stratford, London E20 1JN**

<b>Members:</b>	<b>In Attendance:</b>	<b>Apologies:</b>
Tony Meggs <i>CRL Chair</i>	Funmi Amusu <i>Assistant Company Secretary</i>	Sarah Atkins <i>Non-executive Director</i>
Phil Gaffney <i>Non-executive Director</i>	Susan Beadles <i>Head of Legal Services &amp; Company Secretary</i>	
David Hendry <i>Chief Finance Officer</i>	Nisrine Chartouny <i>Head of Commercial</i>	
Anne McMeel (part of the meeting) <i>Non-executive Director</i>	Lucy Findlay <i>Chief of Staff</i>	
Nelson Ogunshakin <i>Non-executive Director</i>	[REDACTED] <i>Project Representative (PRep)</i>	
Andy Pitt (via conference call) <i>Non-executive Director</i>	Peter Henderson <i>Programme Director</i>	
Nick Raynsford (part of the meeting) <i>Deputy CRL Chair</i>	Simon Kirby (part of the meeting) <i>Crossrail Advisory Panel</i>	
Chris Sexton <i>Deputy CEO</i>	Howard Smith <i>Chief Operating Officer</i>	
Mark Wild <i>Chief Executive Officer</i>	Mark Cooper (Items 4,5,7&8 only) <i>Programme Controls Director</i>	
	Harriet Glen (Items 4,5,7&8 only) <i>Head of Programme Business Management</i>	
	Jim Haynes (Items 4,5,7&8 only) <i>Deputy Programme Director</i>	
	Pradeep Vasudev (Items 4,5,7&8) <i>Head of Systems Integration</i>	
	Mike Brown (Item 19 only) <i>TfL</i>	
	David Hughes (Item 19 only) <i>TfL</i>	
	Simon Kilonback (Item 19 only) <i>TfL</i>	
	Matt Lodge (Item 19 only) <i>DfT</i>	
	Polly Payne (Item 19 only) <i>DfT</i>	

The meeting was quorate.

	<p>The Chairman welcomed Board members and attendees.</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>
--	---

	There were no interests declared in relation to the business of the meeting.
<b>BD MIN 190513 &amp; 190521</b>	<p><b>Minutes of the Meetings of the Board held on 13 and 21 May 2019</b></p> <p>The Board <b>APPROVED</b> the minutes of the meetings held on 13 and 21 May 2019 for signature.</p>
<b>BD AC 190521</b>	<p><b>Actions</b></p> <p><b>19.145 – Reserved matters</b> – the Board <b>NOTED</b> that a member of the TfL Remuneration Committee would be invited to join and participate in the CRL Remuneration and Nomination Committee (Rem/NomCo). It was <b>NOTED</b> that confirmation from TfL that this arrangement was acceptable was pending.</p> <p><b>20.007 – Discussions with contractors on working hours and fatigue</b> – it was <b>NOTED</b> that this would be discussed at the upcoming SHEL T meeting along with other risks on the programme and as part of an overall strategy to address these risks.</p> <p><b>20.008 – H&amp;S training for Board members</b> – the Board <b>NOTED</b> that the training for Board members to engage in safety conversations with the work force would likely entail a half day of training and practice on a site and would be arranged for a suitable time for Board members.</p> <p><b>20.011</b> [REDACTED] the Board <b>AGREED</b> that this item should be deferred to the next Board meeting on 18 July 2019 and <b>REQUESTED</b> that the paper on this should be circulated to the Board beforehand, to give them adequate time to read it before the meeting.</p> <p><b>Action:</b> Nisrine Chartouny/ Susan Beadles</p> <p><b>20.016 – Scenario Planning</b> – it was <b>NOTED</b> that the CRL Chief Finance Officer (CFO) had met with the TfL CFO to discuss this on Monday 17 June 2019 and that scenarios were being developed in the event that the AF CDC potentially were to exceed the current funding for the project.</p> <p><b>20.020 – Romford control centre</b> – the meeting <b>NOTED</b> that a deep dive to develop the commissioning plan for the Romford control centre was scheduled for 24 June 2019 and that the meeting would include members of the Executive team. The Board considered that MTR Hong Kong's world class control room expertise should be utilised and that MTR should be included in the deep dive. The meeting <b>NOTED</b> that the readiness of the Romford control centre was key to the transition to ROGS and would be included in the Delivery Control Schedule and <b>REQUESTED</b> evidence that this issue had been resolved by the next Board meeting on 18 July 2019.</p> <p><b>Action:</b> Peter Henderson</p> <p>The Board <b>NOTED</b> that the other 'due' actions were either complete or covered by the agenda for the day's meeting.</p>
<b>Verbal</b>	<p><b>Board Vis Update on Key Milestones</b></p> <p>The Board <b>NOTED</b> the vis update on the key milestones.</p>
<b>22/20</b>	<p><b>CRLB 22/20 – Delivery Control Schedule 1.0</b></p> <p>The Board received a paper providing an update on the Delivery Control</p>

Schedule (DCS) 1.0 and the five critical 'tightening' issues that may impact it.

The Board **NOTED** the following:

- An interim lock down of the DCS was carried out on 31 May 2019, with the DCS aligned to the 4 key documents that form the basis of the programme – Systems Integration migration plan; Entry/ Exit criteria for each of trial running and trial operations; EOP Strategy (interventions list); and EOP Stations configuration (SC1, SC2 and SC3);
- Against the Stage 3 deterministic date of [REDACTED], 2 schedule constraints (pre-mitigation) were evident – Bond Street station SC1 was constrained at [REDACTED] [REDACTED]; and Plumstead Sidings was constrained as only being required for trial operations;
- [REDACTED]  
[REDACTED]  
[REDACTED]
- Following a review of the DCS on 5 June 2019, 9 major areas were identified which required immediate attention before the final lock down of the DCS on 19 June 2019. All these areas were closed out and 5 critical issues identified that would impact the overall programme, with tightening workstreams actioned to address these issues – (i) Siemens C620 software functionality/ programme and resources to support the convergence of the Siemens and BT software; (ii) Bond Street SC1 programme; (iii) Tier 2/3 critical resources availability; (iv) Handover and Assurance; and (v) Testing and Commissioning plan;

- [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

**Action:** Colin Brown/ Pradeep Vasudev

- [REDACTED]  
[REDACTED]
- The assumptions in the schedule in relation to Bond Street station option 3, Siemens and BT convergence of software and the T-Minus countdown on shafts and portals were highlighted in the paper as areas of concern and the Board **NOTED** that there was particular challenge in relation to the latter, which, if not resolved, could present a risk to the schedule. It was important for centralised engineering resources to be made available to all projects to enable them to meet their milestones;

*The 5 tightening issues*

- *Siemens C620 software functionality/ programme and resources* – to be discussed under a separate agenda item at this meeting;
- *Bond Street SC1 programme* – to be discussed under a

	<p>separate agenda item at this meeting;</p> <ul style="list-style-type: none"> <li>○ <i>Tier 2/3 critical resources availability</i> – the Board <b>NOTED</b> that the critical resources needed were also being utilised on other projects and that it would be helpful for the Board to ask the Sponsors for these resources to be prioritised to Crossrail;</li> <li>○ <i>Handover &amp; Assurance</i> – it was <b>NOTED</b> that this was the most critical of the tightening issues;</li> <li>○ <i>Testing &amp; Commissioning plan</i> – it was <b>NOTED</b> that the stations routeway end to end strategy would be presented to the Board on 18 July 2019. The Board also <b>NOTED</b> that a new Testing &amp; Commissioning resource was scheduled to begin in the following week.</li> </ul> <ul style="list-style-type: none"> <li>● It was <b>NOTED</b> that there was still a lot of work to do in getting the DCS costed and an update on the developed programme level AF CDC would be provided at the Board meeting on 18 July 2019.</li> </ul>
<p>23/20</p>	<p>[REDACTED]</p>
<p>24/20</p>	<p><b>CRLB 24/20 – Bond Street – Step Change in Delivery</b></p> <p>Following on from a request by the Board to review the critical issues at Bond Street station, the Board was presented with a holistic plan for delivering a step change in performance at Bond Street and <b>NOTED</b> the following:</p> <ul style="list-style-type: none"> <li>● The changes made since the last presentation to the Board on 25 April 2019 including the new leadership introduced by CRL, consisting of a new Senior Project Manager, Senior Commercial Manager and Senior Construction Manager. In addition, a Principal Delivery Engineer was scheduled to start on 24 June 2019. Costain had also appointed a new CEO. The Board <b>NOTED</b> that further change in leadership within</li> </ul>

	<p>CSJV was necessary and expected. An Enabling Board had also been established to facilitate progress and remove challenges. Other changes had also been made to address concerns around productivity, project controls and to respond to escalated issues;</p> <ul style="list-style-type: none"> <li>• The short-term solution that will be proposed to the London Fire Brigade Channel 5 radio installation issue and the longer-term Bond Street station turnaround plan;</li> <li>• [REDACTED]</li> <li>• [REDACTED]</li> </ul>
<p>25/20</p>	<p><b>CRLB 25/20 – Siemens and BT Programme</b></p> <p>Following on from a request by the Board to review the Siemens and BT programme, the Board was presented with the basis of the DCS with respect to Siemens’ delivery of CBTC and BT’s delivery of on-board train software, including the underlying risks in the DCS plan, an overview of the migration plan, software configuration management, assurance, residual risks and further detail of the collaborative working initiative.</p> <p>The Board <b>NOTED</b> the following:</p> <ul style="list-style-type: none"> <li>• The baselining of the high-level migration plan, which identified the key milestones and the interrelationship with these milestones, was all included in the DCS;</li> <li>• [REDACTED] and</li> <li>• The Board highlighted the need for sufficient CBTC and technical engineering resources to monitor the work of Siemens in Paris, Braunschweig and Chippenham and again, <b>NOTED</b> the need to raise the matter of the deployment of dedicated key resources from TfL to CRL when the Sponsors joined the meeting later in the day.</li> </ul>
<p><b>BD CBR 190620</b></p>	<p><b>Crossrail Board Report Period 2 including Safety Update</b></p> <p>The Board <b>NOTED</b> the Board Report for Period 2.</p> <p>The Board discussed and <b>NOTED</b> the following:</p> <ul style="list-style-type: none"> <li>• CRL’s Health and Safety Stepping Up Week of activities had been successful;</li> <li>• There had been an incident on 19 June 2019 which set off the fire evacuation procedure at the Fisher Street shaft. The incident was well managed by the person on call, however, this had highlighted the need for a refresh of the emergency safety procedure. The Board questioned how they would be kept informed in the event of an</li> </ul>

	<p>emergency and <b>REQUESTED</b> that at a future Board meeting, a briefing on the procedure that is followed in the event of a safety emergency should be provided;</p> <p><b>Action:</b> Carole Bardell-Wise/ Chris Sexton</p> <ul style="list-style-type: none"> <li>• [REDACTED]</li> </ul> <ul style="list-style-type: none"> <li>• Close headway testing had commenced; and</li> <li>• The rate of production of PCCs and IRNs remained a concern. The Board <b>REQUESTED</b> a deep dive on Assurance and Approvals at the next Board meeting on 18 July 2019.</li> </ul> <p><b>Action:</b> Jeremy Bates</p>
26/20	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>
27/20	<p><b>CRLB 27/20 – Approval of Audited Financial Statements for the Year Ended 31 March 2019</b></p> <p>The Board received a paper seeking approval of CRL’s Annual Report and Financial Statements for the year ended 31 March 2019, having considered the results of Ernst &amp; Young’s audit work and the recommendation of the CRL Audit and Assurance Committee.</p> <p>The Board:</p> <ul style="list-style-type: none"> <li>• <b>REVIEWED</b> and <b>APPROVED</b> the Annual Report and Financial Statements for the year ended 31 March 2019;</li> <li>• <b>AUTHORISED</b> the CFO to sign the ‘Directors’ Report’, ‘Strategic Report’ and ‘Statement of Financial Position’;</li> <li>• <b>AUTHORISED</b> the CFO to sign the Representation Letter; and</li> <li>• <b>AUTHORISED</b> the CFO to make any necessary minor amendments.</li> </ul> <p>The Board <b>NOTED</b> that there was an issue around the valuation of the Railway Pension Scheme and that this did not impact on the Annual Report and Financial Statements being approved at this meeting, however, the issue would be looked into for the future.</p>
28/20	<p><b>CRLB 28/20 – Approval of Certified Information for Funding Drawdown Date of 19 July 2019</b></p> <p>The Board received a paper seeking approval of the CRL Certified Information required under clause 5.3 of the Supplemental Agreement with TfL and DfT relating to the provision of additional funding for the project and the</p>

	<p>corresponding Supporting Statement in relation to the 19 July 2019 funding drawdown.</p> <p>The Board:</p> <ul style="list-style-type: none"> <li>• <b>APPROVED</b> the Certified Information and Supporting Statement; and</li> <li>• <b>AUTHORISED</b> the CFO or other Director to sign the certified information and submit this along with the amended Supporting Statement to the Sponsors on 21 June 2019.</li> </ul>
29/20	<p><b>CRLB 29/20 – Corporate Objectives Framework FY2019/20</b></p> <p>The Board received a paper outlining the proposed framework for the Corporate Objectives for Financial Year 2019-2020. It was <b>NOTED</b> that the detailed objectives and achievement criteria would be submitted to the Board on 18 July 2018 for approval.</p> <p>The Board <b>AGREED</b> that the weighting of the objectives should be amended to reflect 40% against cost and 60% against the programme and that a measure on Stage 5a should be included within the programme objective.</p> <p><b>Action:</b> Chris Sexton</p> <p>The Board <b>REQUESTED</b> that the same headlines and definitions used in defining the cardinal milestones on the vis board should be used in describing the milestones for the objectives.</p> <p><b>Action:</b> Chris Sexton</p> <p>Subject to the amendments agreed at the meeting, the Board <b>APPROVED</b> the framework for the Corporate Objectives for Financial year 2019-2020.</p>
30/20	<p><b>CRLB 30/20 – Project Representative Reports for Periods 1 and 2</b></p> <p>The Board reviewed and <b>NOTED</b> the PRep Report for Period 1 and highlights of the Period 2 report.</p> <p>The Board also <b>NOTED</b> the following points raised by the PRep:</p> <ul style="list-style-type: none"> <li>• questions around the production rates for IRNs and PCCs which was at 60%, yet this did not seem to have an effect on the stage completion dates. There was a risk that targets and not forecasts were driving the dates;</li> <li>• the continued exhibition of ‘optimism bias’ by CRL; and</li> <li>• The risk management approach reinstated in January 2019 was still considered to be immature for this type of programme and at this stage of the delivery lifecycle. The Board considered that a more proactive approach to risk would be useful for the Board, in addition to the information on risk already contained within the Board Report. It was <b>AGREED</b> that the Head of Risk should be asked to attend regular Board meetings to provide an update on key risks.</li> </ul> <p><b>Action:</b> Chris Sexton</p>
	<p><b>Forward Planner</b></p> <p>The Board <b>NOTED</b> the forward planner.</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="368 248 1121 376"> <tr> <td data-bbox="368 248 850 286"><b>Executive Group</b></td> <td data-bbox="850 248 1121 286"><b>EG MIN 190514</b></td> </tr> <tr> <td data-bbox="368 286 850 324"></td> <td data-bbox="850 286 1121 324"><b>EG MIN 190528</b></td> </tr> <tr> <td data-bbox="368 324 850 376"><b>Audit and Assurance Committee</b></td> <td data-bbox="850 324 1121 376"><b>AAC MIN 190325</b></td> </tr> </table> <p><b>Verbal Update on Recent Board Committee meeting</b></p> <p>The Board <b>NOTED</b> the verbal update by Anne McMeel on the matters discussed at the Audit and Assurance Committee meeting on 12 June 2019.</p>	<b>Executive Group</b>	<b>EG MIN 190514</b>		<b>EG MIN 190528</b>	<b>Audit and Assurance Committee</b>	<b>AAC MIN 190325</b>
<b>Executive Group</b>	<b>EG MIN 190514</b>						
	<b>EG MIN 190528</b>						
<b>Audit and Assurance Committee</b>	<b>AAC MIN 190325</b>						
<b>AOB</b>	<p>The Board <b>NOTED</b> the following:</p> <ul style="list-style-type: none"> <li>• <i>Appointment of Independent Non-executive Directors (NEDs)</i></li> </ul> <p>At the Remuneration and Nominations Committee (Rem/NomCo) meeting that day, it was agreed that the number of independent NEDs on the Board should be increased, with a particular focus on project management expertise and network connections with London businesses. The Rem/NomCo agreed to recommend to the CRL Board the appointments of Steve Livingstone (with experience of major projects) and Baroness Jo Valentine (former CEO of London First, with extensive network connections) to the Board.</p> <p>The Board <b>APPROVED</b> the appointments of Steve Livingstone and Jo Valentine and <b>NOTED</b> that the CRL Chair would present these appointments to the Sponsors for approval.</p> <ul style="list-style-type: none"> <li>• <i>Crossrail Independent Advisory Panel (IAP)</i></li> </ul> <p>The membership and expertise of the members of the IAP was <b>NOTED</b>. The areas that the IAP would focus on initially included software configuration, supply management, readiness to operate a railway and the implication of staged opening, Bond Street station and the EOP. The IAP would provide an additional independent perspective and act as a resource for the Executive team and the Board, to provide insight on areas of critical concern. Jeff Clegg had been appointed the Panel Coordinator and to provide support to the IAP Chair, Simon Kirby. The Board <b>REQUESTED</b> that the Terms of Reference of the IAP, the list of its members and the contact details for the Panel Coordinator should be circulated to the Board.</p> <p><b>Action:</b> Chris Sexton</p> <ul style="list-style-type: none"> <li>• The Board members and attendees congratulated the CRL Chair on receiving the award of a CB.</li> </ul> <p>There was no other business.</p>						
<b>Verbal</b>	<p><b>De-brief Discussion with the Sponsors</b></p> <p>The Board provided the Sponsors with an overview of the matters that had been considered during the meeting, highlighting the following: the lock down of the DCS, alignment with the EOP and obtaining alignment with the contractors; Bond Street station and the work being done to address the issues including the appointment of new management [REDACTED] [REDACTED]</p>						



████████████████████; issues around ██████████ engineering capability; safety management; the need to improve on productivity, particularly with the production of IRNs, PCCs and PACs; Stage 5a plans; PRep's reports; risk management and assurance; Crossrail IAP and the attendance of the IAP Chair at Board meetings; extreme transparency by the executive team; monitoring of cost; consideration of the CRL Corporate Objectives Framework; the need for key resources to be made available to Crossrail as a priority; and the appointment of additional independent NEDs by the Board, following the recommendation of the Rem/NomCo.

The Sponsors recognised the difficulty in obtaining the key resources needed for the project and asked for clarity on the particular resources required and for how long, so that this could be raised in TfL. The Sponsors also expressed their readiness to use their influence with the contractors, to drive better performance. The Sponsors requested a more formal response from CRL to the PRep reports and highlighted a request for these reports to be placed on the public domain. The Sponsors also suggested holding a joint session on risk management with TfL to get a different perspective and share learning.

**Signed by:**  
**Tony Meggs**  
**Chair**

████████████████████