

# Crossrail Sponsor Board Meeting No. 120B

Thursday 2 July 2020, 1000-11:30

Microsoft Teams

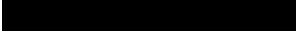
## Sponsor Board Members

Ruth Hannant*	Chair, DfT, Director General of Rail
Shashi Verma*	TfL, Director of Strategy and Chief Technology Officer
Nicola Cox**	TfL, Head of Corporate Finance
Alex Luke**	DfT, Crossrail Project Director
Alison Munro	Independent Member

## In attendance

Kenny Laird	Technical Advisor to Sponsors
Alexandra Batey	TfL, Director of Investment Delivery Planning
Simon Adams	Head of Joint Sponsor Team (JST)
Andrew Wallace	JST
	JST, Secretariat
	JST
Mark Wild	Project Representative
Rachel McLean	Project Representative
Howard Smith	Crossrail Limited (CRL), Chief Executive Officer
Angela Williams	CRL, Chief Finance Officer
Hannah Quince	CRL, Chief Operations Officer
	CRL, Chief People Officer
	CRL, Chief of Staff

## Apologies

Simon Kilonback*	TfL, Chief Finance Officer
Matthew Lodge*	DfT, Director for Rail Infrastructure – South
Jim Crawford	CRL, Chief Programme Officer
	HM Treasury

(\*Voting Members)

(\*\*Alternate Voting Members)

## 1. Safety Moment

CRL stated there has been positive safety engagement in the period and highlighted site safety tours had recommenced. A recent tour of Tottenham Court Road station included a review of the social distancing arrangements in place. CRL stated that as the programme moves through Dynamic Testing and progresses to more complex staging, they will maintain heightened safety awareness, ensure a shared understanding of the objectives by all staff and promote clear communication, using consistent terminology and clear accountabilities.

## 2. Minutes and Actions of Meeting 119b

The minutes and actions for meeting number 119b were discussed and agreed as final, subject to minor amendments.

A progress update was provided on the open actions arising from previous Sponsor Board meetings, as summarised in the Part B action tracker.

### 3. Analysis of current performance trends and issues

#### *Schedule*

Sponsors asked CRL for an update on Period 2 milestones that have been achieved against plan. CRL stated 7 out of the 10 Shafts & Portals had been handed over using the Staged Completion for Familiarisation (SCF) process. Plumstead portal and Eleanor street would achieve SCF in July and Stepney Green would follow in August. CRL also stated that the T+8 deliverables to Handover are being actively tracked.

Sponsors enquired about progress with Dynamic Testing (DT). CRL explained that DT is a highly integrated mode with joint working between Siemens and Bombardier. There are 20 tests to complete to delivery of software v11.4. CRL stated progress with TR2 is on track and it is on rig in Chippenham and 68% complete on signal testing. In addition, 2 out of 4 Final Design Overviews (FDO) have been done. Staged Completion 1 (SC1) has been achieved for all stations except Bond Street.

Sponsors asked for an update on Bond Street and CRL confirmed that a negotiated commercial settlement was reached with the Tier 1 contractor, CSJV. A 90-day plan to deliver SC1 at Bond Street has been established, to complete the 140 EOWs remaining. CRL also confirmed they now have direct control of the Tier 2/3 contractors and plan to establish a delivery plan for the next key milestone after SC1 which is SC2.

Sponsors enquired if there were any key learnings from the handovers achieved to date. CRL stated that an increased focus will be applied to the production of the Operations & Maintenance (O&M) manuals, collation of asset data and the Health & Safety files. CRL stated they will track progress on these areas of focus through the Trial Running Mobilisation Board (TRMB).

#### *Costs*

Sponsors asked CRL to outline deliverables achieved in Period 2, across the principal categories of expenditure. CRL confirmed the spend in period of [REDACTED] was to progress the niche works with 503 of the works mobilised in the period and 281 completed. Costs were also expended on dynamic testing, production of the assurance paperwork and successful completion of the planned Bismarck tests. CRL stated that as the programme progresses, the forward run rate on costs would increase, aligned with the step up in construction activities. CRL mentioned the request they had sent to Sponsors, seeking approval to [REDACTED]. Sponsors confirmed receipt of the CRL request and agreed to respond to CRL's request for [REDACTED] **(Action 120b/01)**.

Sponsors asked CRL for an update on the Programme-wide initiatives underway to help reduce costs, including indirect costs. CRL explained that tactical interventions to reduce indirect costs are in progress, but the work initiated on the CRL Target Operation Model has been paused while management is focussed on delivery of the recovery plan. Sponsors noted the update and asked CRL to provide an update on the Target Operating Model and effect on indirect costs after the blockade **(Action 120b/02)**.

Sponsors asked CRL to provide an update on the cost forecasts and underpinning assumptions. CRL explained that the forecast remains an emerging view as work is still ongoing to address the findings from CRL Second Line of Defence (LoD2) reviews. They need to better understand scope uncertainty, implications of staging logic and supply chain buy-in to the plan. CRL stated that once all the work is completed, they will provide a report

to CRL Board detailing the basis and assumptions of the recovery plan and an updated AFDCD aligned with the plan by the end of July. Sponsors noted the status and asked CRL to circulate the report being prepared for CRL Board, including granular detail on the basis and assumptions of the DCS v1.1 and the Quantitative Schedule Risk Analysis (QSRA).

**(Action 120b/03).**

Sponsors challenged CRL on the extent to which the cost forecast will be aligned to the plan and CRL stated that the cost profile and the recovery plan would be fully aligned. Sponsors requested that CRL provide cost information, including the cost expenditure profile, highlighting when the £750m loan facility will be fully utilised, the AFDCD forecasts -

██████████ and provide details on when the current investment authority will be expended and when additional authority will be required **(Action 120b/04).**

CRL stated that they will need to request a short-term uplift to investment authority and will do so. Sponsors noted the request and agreed to respond accordingly **(Action 120b/05).**

#### **4. COVID-19 - Crossrail Recovery Plan update**

##### *DCS Planning*

Sponsors asked CRL to explain the expected level of maturity the DCS v1.1 and cost forecast to be presented to the CRL Board in July. CRL explained that ██████████

██████████ In addition, by the end of blockade, the programme will have TR2 ready for regression testing, complete 32% of signalling testing required and be ready to start final assurance glide path. The use of Structured Engineering Judgements will be key. Sponsors asked JST to follow up with CRL the use of Structured Engineering judgements as an intervention, to hold the critical path **(Action 120b/06).**

Sponsors challenged CRL on the key areas of risk or uncertainty. CRL explained that they need to ensure the blockade is focussed on addressing the critical scope, completing the scope in the allotted time with adequate capacity of competent, critical resources and the programme must have sufficient time to achieve reliability growth. CRL flagged that there are some resource constraints (e.g. MEP, fire engineers, certification engineers). CRL stated they were undertaking a comprehensive resource gap analysis exercise to identify capability gaps and manage accordingly. Sponsors asked CRL what mitigations had been considered including viable options to deliver the programme within the existing funding envelope and achieve commencement of Stages 4 and 5b as early as possible. CRL stated that the two main interventions planned are the application of Structured Engineering Judgements ██████████ ██████████, to support the assurance glide path and smooth the resource demand and the potential for prioritising the sequencing of stations to de-risk the programme. Sponsors noted the update and asked CRL provide an update on the resource capability gap analysis and steps to mitigate the impact of critical resource constraints from TfL, CRL or the supply chain, including how it will be addressed in DCS when presented **(Action 120b/07).** Sponsors agreed that CRL should revert to Sponsors with the options, evidence and decisions required to support CRL in de-risking the forward programme **(Action 120b/08).**

##### *Construction Blockade*

CRL highlighted that there 450 hazards that need to be addressed by the construction blockade which is planned for 5 weeks duration, with an additional 2 weeks of contingency

available if required. Sponsors enquired about the level of CRL assurance that will have been completed and CRL stated that a T minus 4 review of the readiness for the blockade would be undertaken and led by Simon Kirby, a member of the CRL Advisory Panel. Sponsors asked CRL to update Sponsors on the outcomes from the T minus 4 review (**Action 120b/09**).

Sponsors asked CRL, if supply chain buy-in to the CRL objectives, scope and milestones for the construction blockade had been achieved. CRL stated that they had top level buy-in and commitment from the supply chain, but the exercise was not yet complete. Sponsors noted the progress and asked CRL to confirm the level of supply chain commitment to DCS when presented to CRL Board in July (**Action 120b/10**).

Sponsors asked CRL to circulate success criteria/KPIs that will be established to monitor the recovery plan and explain how they will be monitored and reported going forward (**Action 120b/11**). In addition, Sponsors asked CRL to prepare an assessment of blockade outputs, when concluded, including achieved versus planned outputs and any remediation plans that may be required (**Action 120b/12**).

## **5. CRL Assurance of Recovery Plan**

Sponsors asked CRL to explain how they plan to assure the Recovery Plan and provide confidence that they understand the underlying reasons for previous performance issues and will address them going forward. CRL explained they would undertake assurance of the recovery plan contemporaneously, with input from the Advisory panel and Project Representative, while also addressing the items flagged in the LoD2 reviews. CRL stated they plan to undertake a deep dive to answer the key questions related to scope of the blockade, adequacy of plans to mitigate resource constraints, productivity levels planned versus achievable, entry and exit criteria for the blockade, durations for Trial Running and Trial Operations, adequacy of the Operator and maintainer support to receive staged railway and confirm there is clarity on the stations commissioning plan. Sponsors noted the CRL deep dives and asked CRL to consider adding 'level of supply chain commitment' and 'culture and leadership' to the scope of the deep dive (**Action 120b/13**). CRL to circulate the details of the focus areas for the deep dives, which they identified from the root cause analysis they have undertaken (**Action 120b/14**).

## **6. AOB**

Sponsors enquired about stage 2b, including Class 345 Full Length Units (FLU) withdrawal and CRL's contingency options. CRL summarised the software problem that arose during the dynamic testing of the train protection system, which flagged the potential for the trains to not fail safe when required. As a result, the Class 345 Full Length Unit (FLU) fleet were withdrawn and replaced with Reduced Length Units (RLUs) and Class 360 units. CRL stated that the withdrawal had not impacted on passenger services and reliability levels had been maintained. Bombardier have produced a software patch and are going through safety approvals, which should be achieved by 10 July. Trains should return to service in later part of July.

Sponsors asked for an update on the plan for reintroducing Class 345 FLUs to passenger service and the planned timescales for the commencement of Stage 2b services (**Action 120b/15**).

**Summary of actions:**

No.	Action	Lead	Target and Update
120b/01	Sponsors to respond to CRL request for [REDACTED]	Alex Luke & Simon Adams	July 2020
120b/02	CRL to provide an update on the Target Operating Model and effect on indirect costs after the blockade	Rachel McLean	October 2020
120b/03	CRL to circulate report to be prepared for CRL Board providing granular detail on the basis and assumptions of the DCS v1.1 when available	Rachel McLean	July 2020
120b/04	CRL to provide cost information, including: <ul style="list-style-type: none"> <li>- Cost expenditure profile, including when £750m loan facility will be fully used;</li> <li>- AFDCDC forecasts - [REDACTED];</li> <li>- Details on when current investment authority will be expended and when additional authority will be required.</li> </ul>	Rachel McLean	July 2020
120b/05	CRL to request a short-term uplift to investment authority	Rachel McLean	July 2020
120b/06	JST to follow up with CRL the use of Structured Engineering judgements as an intervention, to hold the critical path	JST	July 2020
120b/07	CRL to update Sponsors on the resource gap analysis and steps to mitigate the impact of critical resource constraints – TfL, CRL or supply chain and how it will be addressed in DCS when presented and impact of constraints	Angela Williams	July 2020
120b/08	CRL to revert to Sponsors with the options, evidence and decisions required to support CRL and de-risk the forward programme	Mark Wild	July 2020
120b/09	CRL to update Sponsors on the Simon Kirby led T minus 4 review of the planned blockade	Mark Wild	w/e 6 July 2020
120b/10	CRL to confirm the level of supply chain commitment to DCS when presented to CRL Board	Mark Wild	July 2020

120b/11	CRL to provide details on KPIs and key milestones to monitor progress and outcomes from the blockade	Mark Wild	July 2020
120b/12	CRL to provide Sponsors with an assessment of blockade outputs, including achieved versus planned outputs and any remediation plans that may be required	Jim Crawford	September 2020
120b/13	CRL to consider adding 'level of supply chain commitment' and 'culture and leadership' to deep dive of assurance activity	Mark Wild / Jim Crawford	July 2020
120b/14	CRL to circulate the details of the focus areas identified from the root cause analysis they have undertaken	Hannah Quince	July 2020
120b/15	RfL to confirm plan for reintroducing Class 345 FLUs to passenger service, and the planned timescales for the commencement of Stage 2b services	Howard Smith	July 2020