



Crossrail Project Representative

Crossrail Joint Sponsor Team

Sponsor Summary

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Note: This report relies on the information set out in CRL's Period 8 reports augmented by more current information received by PRep during the course of our routine discussions with CRL since the Period close on 14 November 2020. Note that information emerging after the close of Period 8 is subject to formal confirmation by CRL in its Period 8 reports. This report is supplemented by our weekly reports to Sponsors (DfT and TfL) and regular meetings with Sponsors staff.

Document History and Status

Revision	Date	Description	By	Review	Approved
1	7 December 2020	PSR 144 Period 8 FY 2020-21 Sponsor Summary v1.5 – Draft	[REDACTED]	[REDACTED]	[REDACTED]
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1 Sponsor Summary

1.1 Key Observations in the Period

CRL has completed all its Safety Justifications (SJs) and has received RAB(C) endorsement of the COS SJ; this document is a significant component of the overall safety case for the railway. With the operation of 6 trains in the Central Section, these are positive signs across the Programme. However, this period has continued with schedule pressures and evaluation of measures to recover schedule to early target dates for Trial Running. The following highlight our key concerns in the Period.

The schedule to reach acceptance on Dependencies and submit RfLI's safety case is aggressive, with concurrency issues, an assumption on right-first-time, and short document turn-around times indicating zero float. Agreement between CRL and RfLI on the principles for this next and crucial stage of assurance will be key for success. The Dependency closure rate is demanding and both parties will need to consider robustness of data, to facilitate a step-change in the rate of approvals, as well as a change in culture. We are concerned that these factors are beginning to manifest in slippage of [REDACTED] and have the potential to cause further slippage.

The coming periods will be demanding, as CRL pushes to recover Trial Running to [REDACTED]. Recruitment is needed for many in-demand specialists to complete the Organisation for Trial Running, with timely decisions balanced against commercial implications. The transition to Trial Running will be a significant undertaking for all organisations involved, including completion of works, operations in a new regulatory environment and with a new infrastructure manager. We are pleased to see dedicated leadership lead this transition, although significant effort and focus will be needed to transition and integrate the team to the challenges it faces in planning, implementing and training the considerable team required to operate in the new railway environment.

Farringdon Station's approach for commissioning is well developed and sets clear objectives for integration into the Control Centre. The Farringdon Station commissioning dry-run started in December 2020, to test the principles, logic and give an indication of any unidentified issues. However, with only two Station plans completed so far, we are concerned with the overall lack of progress. Commissioning teams are currently substantially under-resourced; CRL will either have to recruit for the desired additional teams, or an already over-stretched labour force allocated on a prioritisation basis. This, with pending concurrency of delivery, represent significant challenges to commission the Stations.

CRL previously identified to Sponsors, the greatest opportunity to reduce the final outturn cost is to protect the risk monies. However, at [REDACTED] risk drawdown this is circa [REDACTED] of periodic spend over the last 3 periods, we are concerned that such a drawdown rate is not sustainable. This may also be compounded by CRL's intent to fund contract close-out incentives from the risk monies.

Based on our Period 8 status report, we recommend that the following questions are considered by Sponsors and the CRL Leadership Team:

1. [REDACTED], what measures are CRL Leadership taking to ensure the Programme's position is fully developed, and a culture of over-optimism does not prevail?
2. What evidence can CRL demonstrate for the active steps it is taking to protect utilisation of risk monies?
3. What is CRL's timeline for fulfilling all resource requirements and finalising the associated costs?

1.2 Health and Safety

In Period 8, there were no Lost Time Cases, no RIDDOR incidents but four High Potential Near Misses. The Safety Performance Indicator increased slightly, but overall indicators remain within those set by the Programme.

The Covid-19 second wave is resulting in positive cases and self-isolation of resources across the Programme, causing CRL to maintain a heightened state of awareness. CRL's focus has been on ensuring the safety and resilience of nearly 400 key people and protecting crucial physical assets for continuing operations.

1.3 In-Period Progress Overview

The Routeway Construction Blockade commenced on 21 November 2020, to complete outstanding trace-dependent routeway works and any outstanding assurance works from the August Blockade.

Recovery Plan and Schedule

CRL continues to adopt the Period 4 DCS v1.1 [REDACTED] to measure Programme performance. A fully-assured baseline schedule is outstanding, with areas of weakness on resources and station commissioning plans to be validated.

The Critical Path to Trial Running remains within the safety assurance process, driven by RfLI's development of RCACs and CRL's close-out of Dependencies. CRL delivered all its SJs to sustain its assurance mitigation plan, as well as achieving endorsement of the COS SJ from RAB(C). Greater granularity is now evident for the work to close the circa 500 open Dependencies arising from the SJs Endorsed to date. The timely transfer of assurance outputs from the November Blockade, into eB, to support Dependency closure, will be critical.

CRL has maintained its focus on Farringdon, Paddington and Tottenham Court Road Stations to drive the start of Trial Operations. All Stations are targeting SC1 Enactment by the end of December 2020, which is crucial to enable commencement of Trial Running. Similarly, work continues towards the SC3 milestone, with Paddington Station declaring its SC3, just after this reporting period end. This allows a phased demobilisation of the Tier 1 contractor, and the completion of commissioning. Farringdon Station started its T-12 process to ROGS handover on 27 November 2020, on schedule.

Handover Delivery and Assurance

Eleanor Street Shaft completed Handover on 10 November 2020. Limmo and Stepney Green Shafts remain on target for Handover completion on 9 and 16 December 2020, respectively. Plumstead Depot was targeting a pre-Christmas Handover, but mid-January 2021 is now more likely, due to outstanding SJ Dependencies.

SIDT, Dynamic Testing, Trial Running and Trial Operations

TR2 testing was completed. Tests that did not pass, but are required for entering Trial Running, have agreed mitigations in place. The one exception will require a software fix update in January 2021. SIDT is on schedule to start on 3 December 2020.

It is positive that CRL and RfLI have reached agreement on the Trial Running Railway Configuration; the Trial Operations Configuration is still under development.

The process to secure an assured safety case is causing significant pressure to the Trial Running date and has resulted in a slippage [REDACTED]. While CRL is evaluating mitigation plans to recover this date, the risk of further slippage to this date is high.

Organisation Transition

Review of CRL's resource requirements has indicated a reduction to circa 133 total vacancies¹. While this is an improved position, further improvement may be derived through additional rigour, challenge and change management. CRL has paused the recruitment process through TfL and has engaged its supply chain to fill the immediate gap in Technical and Assurance roles. Despite funding uncertainty in the Period, CRL has extended resources to March 2021 to support Trial Running.

Development of the Trial Running organisational structure², has identified 164 critical roles required through to revenue service, of which 32 require recruitment, with the balance to be filled by RfLI, CRL and its supply chain. CRL plans to complete its review of this commercial impact by end of Period 9. CRL is adopting TfL's new Talent Management Strategy to identify critical roles for, training, development and succession planning.

1.4 Ongoing Concerns

[REDACTED], yet to be ratified, with all other locations to submit reports to the Local Authorities. However, closure of EOWs with evidence related to the August Blockade has remained poor. Our wider concerns with the delivery of the Elizabeth Line are set out below.

Stage 2B Operations

A key software release was implemented in early December 2020 for FLUs operating on the GWML. This should reduce ETCS resets although, to fully complete this, other software releases are also likely to be required. If successful, the number of FLUs in passenger service can be increased, allowing RLUs to be converted to FLUs to support Stage 4A, albeit the schedule is now compressed.

Stage 3 – SIDT, Trial Running, Reliability Growth and Trial Operations

It is evident that SIDT will now be compromised by the impact of re-planned tests for Dynamic Testing and construction requirements. The SIDT period is now congested with zero float. With tests completing just before March 2021, we are concerned that completion of such tests and timely provision of evidence may impact assurance for Trial Running. Late performance of a number of tests, puts at risk COS SJ acceptance and the Trial Running CESAC, and some tests may require deferment to Trial Operations. Identification and sequencing of critical tests to complete the assurance process will be a key factor to achieving Trial Running.

The delivery of Signalling Asset Data continues to be the main concern related to completion of Handover documentation to finalise the ECHR. We anticipate a pragmatic resolution between CRL, its supplier and RfLI, will be achieved to avoid it becoming a protracted issue impacting Trial Running.

Following identification of TVS and PSD interaction issues, a detailed plan with completion dates for resolution is required. While the start of Trial Running may not be affected, if there is no timely resolution, there is potential for Trial Operations performance or Revenue Service, to be impacted.

Both CRL and RfLI must focus on the finalisation of scope within the Trial Running period. This includes developing a governance process focused on mobilisation, responding to issues within Trial

¹ Crossrail Weekly Dashboard, Period 8 Week 4 FY2020/21.

² Recommendations for Trial Running Strategy Group, 24 November 2020.
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Running and establishing criteria for effective completion of Trial Running, for entry to Trial Operations.

Stations Assurance and Commissioning for Trial Operations

Schedule adherence across all Stations has progressively improved in the period, with only Canary Wharf and Custom House Station below 60%. However, closure of EOWs and Assurance has not achieved this level of performance, which is currently at 50%.

Unknown scope continues to be identified, with an emerging issue of Custom House Station required to be at SC3 ROGS for Trial Running. This oversight, arising from a lack of integration between all interfacing parties, is likely to require a re-sequencing of Stations delivery in the Handover strategy. Consequently, we are concerned that this change in strategy will result in float erosion for Handover of other Stations (Tottenham Court Road, Paddington and Liverpool Street), and introduce further pressure on Station teams, with demands from concurrency issues.

A mounting concern is that work will be required to complete the Stations when the railway is in Trial Running and preparing for Trial Operations. This will require close integration between the Operator and project works teams, to ensure understanding of the new ROGS railway operating environment.

A recent spell of Covid19 outbreaks is expected to affect productivity at Bond Street Station.

Commercial and Risk

CRL is experiencing exceptional commercial pressure as a consequence of schedule, scope and delivery performance. This is compounded in the Period by unresolved funding issues, which impact its ability to remain in commercial governance. While Sponsors increased funding by £825m, on 1 December 2020, we expect this to take some time to flow into Investment Authority.

From the Period 8 reviews³, we had anticipated a Period 8 AFDC increase to £15,923m; an increase of £39m from the previous period forecast of £15,884m, and largely driven by the expected increase in Indirect staff costs. However, the Period 8 EPPR information is suggesting a reduction in the AFDC forecast by £6m to £15,878m, because of risk and contingency drawdown covering the in-period project cost pressures. The difference between the AFDC in our draft report and in CRL's ELDG reporting, is a direct result of the belated presentation of inconsistent data by CRL. The late change to CRL's commercial reporting position continues to be a concern, and is a trait repeated from previous periods. We are also concerned that CRL has indicated to Sponsors in the past, that 'savings' could be made against risk monies, through managed risk mitigation; however, we believe that CRL is having to draw-down risk monies to contain cost pressures and increases.

Organisation

We are encouraged to see proposed changes to the organisation structure to include identified operational leadership for the transition team to Trial Running. However, we observe across the Programme that timely decision-making has been poor and the processing of information to completion is taking a considerable time. This includes evidence close-out from the August Blockade to support the assurance process, implementation of Windows 10 software upgrades, resolution of TVS PSD issues and issues related to funding the RCC scope of works. Also, greater integration is required across the Programme, and particularly the Stations teams to support information flow on commissioning, assurance and Dependencies. With the recent appointment of two senior resources to CRL's management team, we anticipate these issues to be areas of focus for improvement.

³ Integrated Programme Review, 24 November 2020 and Executive Programme Performance Review, Period 8 2020/21, 1 December 2020.