



Crossrail Project Representative

Crossrail Joint Sponsor Team

Sponsor Summary

Project Status Report 142

Period 6 FY2020-21

23 August 2020 – 19 September 2020

Document No. B2387600/142/1.10

15 October 2020



Official ~ Sensitive Commercial

Sponsor Summary PSR 142

Project no: B2387600
 Document title: Sponsor Summary for PSR 142
 Document No.: B2387600/141/1.10
 Date: 15 October 2020
 Client name: Crossrail Joint Sponsor Team
 Client no: RM 3730
 Author: [REDACTED]
 File name:

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Note: This report relies on the information set out in CRL's Period 6 reports augmented by more current information received by PRep during the course of our routine discussions with CRL since the Period close on 19 September 2020. Note that information emerging after the close of Period 6 is subject to formal confirmation by CRL in its Period 6 reports. This report is supplemented by our weekly reports to JST and regular meetings with JST staff.

Document History and Status

Revision	Date	Description	By	Review	Approved
1	12 October 2020	PSR 142 Period 6 FY 2020-21 Sponsor Summary v1.9 - Draft	[REDACTED]	[REDACTED]	[REDACTED]
2	15 October 2020	PSR 142 Period 6 FY 2020-21 Sponsor Summary v1.10 - Final	[REDACTED]	[REDACTED]	[REDACTED]

1 Sponsor Summary

1.1 Health and Safety

In Period 6, there were 2 Lost Time Cases, 1 RIDDOR incident and 3 High Potential Near Misses¹. While the Safety Performance Indicator increased slightly, overall indicators remain within those set by the Programme.

A trend of increasing incidents involving electrical issues, working from height, slips/trips and procedural irregularities, continued across the Programme in the Period. Despite an increase in leadership visits to sites and issues raised at SHELTS 95, sites are yet to achieve full presence of site management teams.

An updated plan is expected in Period 7 to address the threat of a second wave of Covid-19.

1.2 In Period Progress Overview

The Construction Blockade successfully completed on 17 September 2020, achieving a greater than planned productivity of 96%. Focus now is the close-out in eB of all the associated EOWs, ACs and Hazards, ahead of finalising the Routeway assurance. Planning will commence for a second smaller Blockade in November 2020, to complete outstanding works for the Routeway, prior to Systems Integration Dynamic Testing (SIDT).

Recovery Plan and Schedule

In the Period, Period 4 DCS v1.1 [REDACTED], was adopted for performance management across the Programme. CRL received schedules on the stations scope from its supply chain in mid-September 2020, and is working to establish an assured baseline schedule; to date PRep has not had visibility of this.

The Critical Path to Trial Running remains within the Routeway Recovery Plan. Activities on the Critical Path include Asset Data delivery, completion of ACs, clearance of Earthing & Bonding SJ dependencies, approval of the COS SJ and, ultimately, CESAC approval.

The start of Trial Operations is driven by the Stations Recovery Plan. CRL management will focus effort on three Stations, Farringdon, Paddington and Tottenham Court Road, to achieve the SC3 milestone. This key milestone assumes the contractors to have completed all assurance evidence, and countdown to ROGS handover. Crucial to achieving this will be establishing a definitive baseline scope of safety critical works-to-go, together with an appropriate change control process. In parallel, Station integration, testing and commissioning between the SORs, RCC and Communications and Control systems is required; Plateau 2 Team has been established as the 'guiding mind' for this.

Cost

Period 6 AFCD at £15,880m has not changed since Period 4, when it was reported to be an emerging mid-point estimate under review and subject to further change. In the absence of an assured schedule, reported AFC cost pressures have been offset by a reduction in programme risks and provisions. Risk as a percentage of Cost to Go is increasing; while significant at this stage of the project, it is difficult to give a level of confidence the risk provision provides.

¹ Executive Programme Performance Review Period 6 2020/21, meeting 6 Oct 2020
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Delivery and Assurance

Handover delivery continued, with Stepney Green Shaft starting its SCF process on 17 September 2020; all Shafts are now in the final stages of formal handover. In the next period one Portal and one Shaft are forecast to complete handover, with two to complete. CRL has engaged with its supply chain to resolve the electrical Single Point of Failure issue. Planned completion dates and costs for this work are still to be confirmed.

Novation of sub-contracts for Bond Street Station was completed; the design to complete SC2 is [REDACTED]. A validated baseline schedule for the remaining Station works, supported by the supply chain, is expected by end of October 2020².

SIDT, Dynamic Testing and Trial Running

Dynamic Testing continued with TR2 in the period; the tests were generally completed to plan, albeit with one or two unforeseen emerging issues. The Trials, Testing and Commissioning (TT&C) team focused on the planning for SIDT, [REDACTED].

The Trial Running [REDACTED] continues to be held in the period, though signs are that this is coming under increasing pressure.

Organisation Transition

The new Organisation Transition Plan became effective on 1 October 2020 with CRL transitioning to within the TfL organisation. As TfL takes responsibility for Programme governance together with RfLI forming the Operator and Maintainer of the Elizabeth Line, the potential benefit is that decisions can be implemented quickly for the critical operational phase of the Programme ahead.

While the roll-out of the new Programme Directorate structure has been communicated across the Programme, its implementation has been delayed two weeks from 30 September 2020. The aim of this new structure will be to focus on Programme integration through to Trial Operations, and to clarify interfaces within CRL, as well as with Operations.

An important workstream that CRL will undertake over the next 2 months is the evaluation and planning for the Infrastructure Manager readiness for Trial Running. This will include organisation structure, roles, responsibilities, gaps and overall readiness to start Trial Running.

1.3 Ongoing Concerns

We are encouraged to see the formation of teams for Plateau 2 and TT&C, and the progress with planning for SIDT. While these are positive indicators, post-blockade works related to closure of Acceptance Certificate assurance activities may have stalled. Lack of an assured baseline schedule available to both PRep and CRL teams is a primary concern. Missed Cardinal Milestones, as well as slippage, are indicators of achieving less than assumed productivity, putting [REDACTED] Trial Running at risk. Outstanding Undertaking & Assurance issues and Potential Incident Reports related mainly to D25 noise issues must be resolved through Local Authority acceptance, prior to start Trial Running. Our wider concerns with the delivery of the Elizabeth Line are set out below.

Stage 2B Operations

A service to Heathrow with FLUs operating at 2 TPH started on 14 September 2020, which allows RfLI to surrender its lease of the Class 360 fleet. The 5 FLUs are currently limited on the GWML, due to train software control issues; these prevent services operating 4 TPH to Heathrow and serving

² Bond Street Steering Group Meeting 23 September 2020.
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Reading. The two software fixes needed for these issues have both slipped a month, meaning full deployment of FLU services on the GWML is likely to be delayed to mid-December 2020.

Stage 3 – SIDT, Trial Running and Reliability Growth

A below-expected TR2 test pass rate for Entry into Trial Running has been achieved, with even lower pass rates for tests necessary for the Trial Running period. There is a risk that additional restrictions for Trial Running will need to be implemented than were planned. Additional Dynamic Testing may also need to be carried-over into SIDT, which will add further risk to Reliability Growth in a potentially reduced SIDT period, moving additional risk into Trial Running. While there is no change to the SIDT start date, it is under pressure and strategies to minimise disruption have yet to be finalised.

There are concerns for the readiness and completion of Routeway Integration Testing, with all the allocated contingency now used up. Re-planning works are in progress to validate works that can be completed in the current Dynamic Testing phase.

CRL and RfLI are engaged to establish the functional configuration state of the railway, for both Trial Running and Trial Operations; gaps in the plan will need to be agreed in the next period. This will be important to ensure, that RfLI's Safety Assessment Report and operational organisation structure can be assessed by the AsBo in early December 2020 for Trial Running.

Other important factors for successful transition into Trial Running include the resolution of Rolling Stock/Signalling software integration issues and ensuring the integration assurance plan and Cardinal Milestones are accurately reflected in the DCS.

Routeway Recovery Plan

Since Period 4, when the DCS v1.1 for performance management was established, slippage has occurred against Safety Justification (SJ) assurance activities, such that all float has now been eroded, resulting in delays to planned RAB(C) meetings. Plumstead Depot and Sidings SJ is currently running late and delays to this will impact the COS SJ. Interventions have been implemented to recover the COS SJ November 2020 start date; including a two stage SJ process, and additional RAB(C) meetings. While benefits are yet to be realised, it is possible that emerging additional Dependencies may impact Trial Running. Meanwhile, significant pressure is on resources for assurance delivery.

The completion of the handover of Stepney Green and Limmo Shafts is dependent on completion of works to address the Single Point of Failure electrical issues; this is anticipated by end of 2020, with assurance documentation to follow. Close collaboration will be required between CRL and RfLI to ensure success. EOWL closure in the T+8 period is showing progressive signs of improvement, despite challenges with adherence to plan, and regular additional uncontrolled inclusion of EOWLS.

Stations Recovery Plan

The Stations Recovery Plan is still not fully matured. CRL management is focusing on implementing a 'blockade-style' approach to clear works to achieve SC3 for Farringdon, Paddington and Tottenham Court Road Stations. While this may have the effect of removing these Stations from the Critical Path, focus may be to the detriment to other Stations. Baseline scope for Stations SC3 is still to be concluded; regular reviews indicate schedule adherence is a challenge due to overstated productivity targets, right first time assumption, and delivery and controls functions misaligned.

Other Station issues that have potential to impact SIDT or Trial Running include a possible requirement for replacement of Platform End Doors at 2 Stations (Farringdon and Liverpool Street), incremental uncontrolled addition of EOWLS which will affect scope-to-go, and a balance of

