

## Appendix 1: New Critical Recommendations

Shown below are the critical issues raised and agreed with the respective project teams.

Project: Central Line Signalling & Control		
Raised by	Critical Issue	Management Response
Project Assurance	Business case must demonstrate the value for money of all elements of proposed scope and do minimum options and the resilience of the financial case against possible project changes e.g. cost increases or programme delays.	The business case will be updated with information on the cost and value of individual scope items and sensitivity testing to strengthen the financial case.

Project: Cycling Future Route 3		
Raised by	Critical Issue	Management Response
Project Assurance	The business case should be fully developed to ensure evidence-based conclusions are provided, notably against strategic and economic cases.	The recommendation is accepted, and the recommendations made by the external assurer have been reviewed and updates will be made to strengthen the evidence within the business case document. There is a strong strategic case for delivering this route, and that was acknowledged in the review meetings. This is based on the extensive work carried out as part of TfL's Strategic Cycling Analysis where this project was identified as one of the top 25 priorities across London for cycling investment. The route provides an important connection between the flagship Mini-Holland cycling network in Waltham Forest and Cycleway 1, which connects to central London. The economic case has been developed significantly since the previous assurance review in 2019. Benefits and dis-benefits have been quantified and monetised and a positive Benefit to Cost Ratio of 4.89:1 established.
Project Assurance	The cost estimate update, including London Borough of Hackney costs, should be concluded and independently assured, so that the affordability of the project can be assessed.	The cost estimate update has now been concluded by TfL Commercial. TfL Commercial has also provided independent assurance of Hackney's costs.

**Project: Proteus (Integrated Revenue Collection Contract Re-Let)**

<b>Raised by</b>	<b>Critical Issue</b>	<b>Management Response</b>
Project Assurance	Programme unaffordability must be addressed as part of Business Planning to make the project affordable.	This will be addressed as part of Tech and Data's Budget process.
Project Assurance	Estimated final cost does not include possible transition costs. Risk of this should be allocated at sub programme or business level.	Treatment of supplier transition costs will be presented as part of the Budget review process for agreement.

**Project: LU Track and Drainage**

<b>Raised by</b>	<b>Critical Issue</b>	<b>Management Response</b>
Project Assurance	In order to ensure delivery of the 2022/23 work programme the full extent and impacts of lack of design pipeline should be clearly set out to Directors. This should include a rectification plan including resource and cost loaded programmes. Opportunities to employ external resources should be considered.	Work to baseline the 2022/23 work bank is underway. An outline plan of volumes, presented in a paper elsewhere on the agenda for this meeting, is considered deliverable. A resource plan to meet designs associated with these volumes is considered achievable. The TfL Head of Profession will confirm design resource for 2022/23 in October 2021.

**Project: Rotherhithe Tunnel**

<b>Raised by</b>	<b>Critical Issue</b>	<b>Management Response</b>
IIPAG	A detailed risk based review of the design assumptions should be carried out to determine whether different design assumptions, in conjunction with aids to improve visibility during evacuation if necessary, could justify a ventilation system purely based on longitudinal ventilation.	<p>A review of the design assumptions has been completed.</p> <p>The tunnel ventilation solution has been derived from the feasibility study which was carried out by a competent third party designer (Atkins). A detailed risk assessment was carried out at the time which showed a significant difference in risk between a longitudinal and transverse ventilation with a marginal difference in cost and the transverse ventilation reducing risk to a tolerable level.</p> <p>Health and safety legislation states that TfL has to mitigate risk to a tolerable level</p>

**Project: Rotherhithe Tunnel**

Raised by	Critical Issue	Management Response
		<p>before considering cost. In discussion with counterparties in Wellington, New Zealand and Brisbane, Australia they operate under similar legislation and this benchmarking has provided no new insight into the design solution for the Rotherhithe Tunnel. Similarly, recent discussion with Highways England has demonstrated that the design process and assessment has been robust.</p>
IIPAG	<p>The procurement process should be reconsidered, based on an open tender for a single-stage contract, with pre-qualification weighted towards experience in tunnel ventilation works in both installation and design. Consideration should be given as to how value for money testing of the concept design, in terms of capital costs, whole-life costs and tunnel closures, can be introduced into the tendering process.</p>	<p>Based on the market engagement we have carried out with Surface Transport Infrastructure Construction framework contractors and external contractors, a single-stage contract would likely fail to attract sufficient competitive interest. A single stage contract is seen by the market as high risk, particularly for a project of this complexity, and given the current market conditions. There is a large volume of infrastructure opportunities for contractors in the UK, currently allowing them to be selective about the opportunities they bid for. Further, current supply market conditions affecting the procurement of materials and labour would mean a significant risk premium would be attached to a single stage contract price.</p>
Project Assurance	<p>The Estimated Final Cost (EFC) must be updated to reflect the whole range of 'most likely' options, not just one option so that decision makers are aware of the potential cost exposure to the project.</p>	<p>The midpoint EFC is based upon the assumption of an extended block closure for construction. However, four closure options have been considered and these ranges will be included in the approval request for authority at the end of Stage Gate 3 therefore reflecting the low, most likely and high points across the range of possible options.</p>