

Lessons Learned

Reflection allows us to learn from our experiences, either good or bad.

- If we don't take the time to reflect on our *Experience* of what did, or didn't go well, then we'll be bound to repeat mistakes or fail to repeat specific behaviours that lead to success.

Regular **Lesson Learned** Sessions have been undertaken from 2021 – 2023.

The following observations have been captured and distilled from all the sessions.

The lessons Learned sessions dealt with the following areas:

- Business and Strategic Case
- Procurement and Tender
- Post Contract and Delivery
 - Completion, Handover and Business as Usual (scheduled for 21/3/2023)

Lessons Learned

Lesson Learned Sessions undertaken annually from 2021 – 2023)

After: Project Improvement Plan (22 October 2020)

The key measures from the Project Improvement Plan (PIP) that had the greatest positive impact on the project: (May 2022 Lessons Learned Session)

Greater collaboration Change in NEC pm Making Thurrock aware of real reasons for overruns

PM Change - NEC savvy RACI and Org AECOM Commercial team

1. DoV reduced backlog of change. 2. More improved resourcing & inclusion of key roles such as a planner. 3. Opportunity to look forward rather than back.

A greater understanding of the expected role was obtained from the client. Appreciation of the scope of the works to be undertaken by AECOM. High level review across all parties to resolve and discuss issues.

Level of resource, capability of resource, better working processes.

-Better resource - experienced PM - DoV being agreed and signed

Changes in AECOM resourcing, positive collaboration between Employer and Contractor teams and the DoV agreement.

Clearer R&Rs Additional resource to manage the contract (management, programme and supervision)

Shared information on the original project, and its issues. Setting a baseline. Improved openness in the team.

From an outside perspective joining when the Project Improvement plan was implemented it was clear that greater site resource had been required and this had a positive effect on the on site works and providing a fresh set of eyes from both quality and safety perspectives. Additionally the new project manager with an outside perspective with the determination of working collaboratively with the contractor appeared to help.

Lessons Learned (Lesson Learned Sessions undertaken annually from 2021 – 2023)

Question to all participants:

- What are the key takeaways to take from this project and implement / influence in your next highways scheme or infrastructure project?

Clearer procurement strategy Competent NEC PM Drive collaboration into project at all stages

Project Setup period - Design + Consultant team Clarity on Skillsets and Experience Robust Governance and Change Control

1. Greater involvement in the procurement / tendering phase. 2. Clear contract documentation from the outset to minimise conflict. 3. Have a defined scope to reduce change.

Ensuring the scope of the works is fully understood by all parties. Ensuring that appropriate levels for discussion are maintained. A greater understanding of the stages that the scheme is to pass through.

Better coordination of procurement of different suppliers. Get the right level of resource capability. Agree contract management processes and reporting drumbeat.

- Have the right / good amount of resource from the start - where possible - Have a finished design (mainly if Option C) - Have a clear file storage system for all docs / original contracts

Better collaboration with Contractor, Suitable PM team for the scheme and design maturity.

Regular auditing early on in the project.

Fix scope, get right team doing the right things at right time by teamwork

RACI matrix/R&Rs Important of procurement strategy Level of design maturity required

Thorough checking process / gateways agreed up front. Clarity of scope.

Agree more robust ITP plans at the outset with greater responsibility on the contractor to notify inspections to the supervisors team with ramifications if they do not comply with this requirement. This could greatly decrease the number of defects. Collaborative working is the most important aspect of progressing works and any challenges with this aspect of the construction process should be ironed out and rectified where possible.

Lessons Learned *(Key Take aways)*

1. The Project original contract let sum did not take into account the level of change and risk residing within the scope at the time of appointing the Contractor, as captured in Lesson Learned sessions
2. The project was lacking in areas at time in terms of governance and behaviours. Addressed by intervention & measures implemented as demonstrated by the information within this pack
3. Covid-19 had a substantial impact on the scheme, not only in cost and programme, also in lack of experience for all parties (1st time event), exacerbating already troubled Project Team relationships
4. Once robust governance and controls were established, Regular audits and KPI's for reporting agreed, the controls and performance improved noticeably
5. Robust Gateways not evidenced in early stages (See
6. The scheme out turn cost would have been substantially higher if a scheme reset had not taken place (DoV - Dec 2020). This intervention yielded great benefits and off-set the potential lack of value gained due to lack of robust controls and governance prior to December 2019
7. The ultimate out turn cost is a fair representation of what the scheme value is, due to the many challenges, level of change and commercial shortcomings identified in the Lesson Learned sessions.
8. Ensure funding constraints don't lead to optimism bias / group think. Independent review required.

Lessons Learned (Key lessons to be implemented in future schemes)

Stage Gate / Gateway Reviews / Robust Gateways not evidenced in early stages. Recommended

#	Classification	Definition
1	Governance	Recommendations related to the oversight, structure and decision making of a project. This theme also includes recommendations relating to alignment with pan-government priorities, strategies and controls.
2	Stakeholder Management	Recommendations related to relationships with all parties with an interest in the outcome of the project, whether internal to the agency, internal to government or external.
3	Programme and Project Management	Recommendations related to all aspects of project, programme and portfolio management, but excludes recommendations on Risk, Issues and Dependency Management (Theme 9) and Resource Management (Theme 10)
4	Change Management & Transition	Recommendations related to the Management of Business Change – all the work required with and in the business and with the customer to make ready for the initiative, in terms of changes to business processes including: business continuity planning, changes to work processes and resourcing, changes to organisational structures and staffing to support transformational or process changes to business delivery to ensure a smooth transition to PAM. It does not include Technology Readiness for Services (Theme 12)
5	Financial Planning and Management	Recommendations related to financial planning, organising, directing and controlling of financial activities.
6	Benefits Management & Realisation	Recommendations related to the identification, ownership, measurement and realisation of benefits and dis-benefits. Benefits can be either financial or non-financial.
7	Commercial Strategy & Management	Recommendations related to the end-to-end procurement process including: Procurement strategy and planning, Approaches to the market, Contract negotiation and Contract management.
8	Context, Aim & Scope	Recommendations that are aimed at the clarity of the change to be implemented. It covers alignment to vision, strategy and policy; the purpose, objectives, justification and description of the change; and the determination of success and the necessary environment to ensure success.
9	Risk, Issues & Dependency Management	Recommendations related to the identification, analysis, impact assessment, response and the on-going review and management of Risks, Issues and Dependencies (i.e. outputs that are required by a project to succeed, but which will be delivered by parties not under the direct control of the project).
10	Resource & Skills Management	Recommendations related to all aspects of the identification, supply, optimisation, prioritisation and maintenance of resources and appropriate skills.
11	Knowledge Management	Recommendations related to the process of capturing, developing, sharing, and effectively using organizational knowledge. It includes sharing knowledge and experiences or Lessons Learnt.
12	Technology	Recommendations related to all technology issues, including the alignment of the technology solution to the technology and business strategy, the integration of one or more technology solutions, the operational readiness of the solution (including testing of the solution), and all aspects of security relating to the technology solution.
13	Other	To be used only when other classifications do not apply.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1002373/Guide_to_Preparing_an_Assurance_Review_Report_Version_1_2021_-_1_.docx

Lessons Learned (Key lessons to be implemented in future schemes)

1. Review *Lessons Learned* for EVERY stage (From Concept, Feasibility etc - A standing Agenda Item)
2. Early Site / Ground Investigations (risk is greatest below ground / utilities / environmental)
3. Design maturity to provide acceptable level of Cost Certainty at appropriate stage
4. Buildability risk & issues to be reviewed robustly, with appropriate contingency allowances
5. Scope / Works Information, Design fixity, Site Conditions and Constraints clearly defined
6. Earliest identification of expertise required in RACI, implement / develop robust governance
7. Develop robust Interface management plan (Utilities, services, clash detection, risk and mitigation)
8. Risk Register, Contingency and Optimism Bias factored in commercially as soon as possible
9. Procurement Strategy clear with route to market (i.e., Form of contract /appropriate risk allocation)
10. Planning / Briefing / Kick-off / Refresh Workshops throughout to manage stakeholder expectations
11. Adopt appropriate tools (collaborative administrative software) to manage information and reporting requirements and to facilitate more robust decisions. Online platform: 1 version of truth
12. Establish project drumbeat (clear meeting/s and reporting strategy for life of project)

Appendix C: Key Lessons Learnt

Clearer procurement strategy. Competent NEC PM Drive collaboration into project at all stages
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Ensuring the scope of the works is fully understood by all parties. Ensuring that appropriate levels for discussion are maintained. A greater understanding of the stages that the scheme is to pass through.
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Regular auditing early on in the project.
Fix scope, get right team doing the right things at right time by teamwork.
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Key Takeaways:

1. The Project original contract let sum did not consider the level of change and risk residing within the scope at the time of appointing the Contractor, as captured in Lesson Learnt sessions.
2. The project was lacking in areas at time in terms of governance and behaviours. Addressed by intervention & measures implemented.
3. Covid-19 had a substantial impact on the scheme, not only in cost and programme, also in lack of experience for all parties (1st time event), exacerbating already troubled Project Team relationships.
4. Once robust governance and controls were established, Regular audits and KPI's for reporting agreed, the controls and performance improved noticeably.
5. Robust Gateways not evidenced in early stages.
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