

The National Audit Office. The Public Accounts Committee and the HS2 Project

National Audit Office: Session 2022 -23,
Report HC 1201

London Euston Station and HS2 Limited

18th June 2023

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Analysis and Commentary

Contents

The National Audit Office. The Public Accounts Committee and the HS2 Project.....	
Preface.....	3
The National Audit Office. The Public Accounts Committee and the HS2 Project.....	3
The Authors' intentions.....	3
INTRODUCTION.....	4
National Audit Office: Session 2022 -23, Report HC 1201: The Report	4
The Report: Criteria.....	4
Framework to review programmes – elements.....	4
Analysis and Commentary	6
Structure and Content.....	6
Period of Analysis and Commentary: October 2015 to April 2023	6
THE REPORT: ANALYSIS AND COMMENTARY.....	7
Part One: pages 1 – 20	7
Key facts, page 4	7
Summary, page 5	7
Key findings, page 7.....	8
Conclusion, page 12.....	8
Recommendations, pages 13 and 14.....	9
Background	10
Background to Euston station.....	10
Part Two	13
The Report: pages 21 – 30.....	13
Part Three.....	20
The Report: pages 31 – 38.....	20
The Oakervee Review (Oakervee).....	20
Appendix One.....	25
National Audit Office (NAO) audit approach.....	25
THE REPORT CONCLUSION – ELEMENTS OF REVIEWING CRITERIA.....	27
Introduction to this section	27
Methodology	27
Reconciliation with reviewing criteria	27
Purpose	27
Value.....	27
Set up	28

Delivery and variation management.....	28
Overall analysis and conclusion	28
Executive Summary	29
Analysis and commentary findings	29
Purpose	29
Value.....	29
Set-up	29
Delivery and variation management	29

Preface

The National Audit Office. The Public Accounts Committee and the HS2 Project

The Authors' intentions

The National Audit Office and the Public Accounts Committee of the House of Commons have repeatedly reported on the project of the High-Speed Two (HS2) project without appearing to act in a consistent, co-ordinated manner to identify and expose the escalating problems with cost and dates for project delivery and reconcile them with the approvals given by Parliament.

In this ***Analysis and Commentary***, we attempt address these shortcomings in a way, which will help , both bodies and Parliament, review the future of the project in line with published guidelines.

In publishing our ***Analysis and Commentary***, we make it clear that we do not criticize public investment in major infrastructure projects, but to draw attention, in the public interest to this small part of a major project, with is illustrative of the lack of project management and controls.

INTRODUCTION

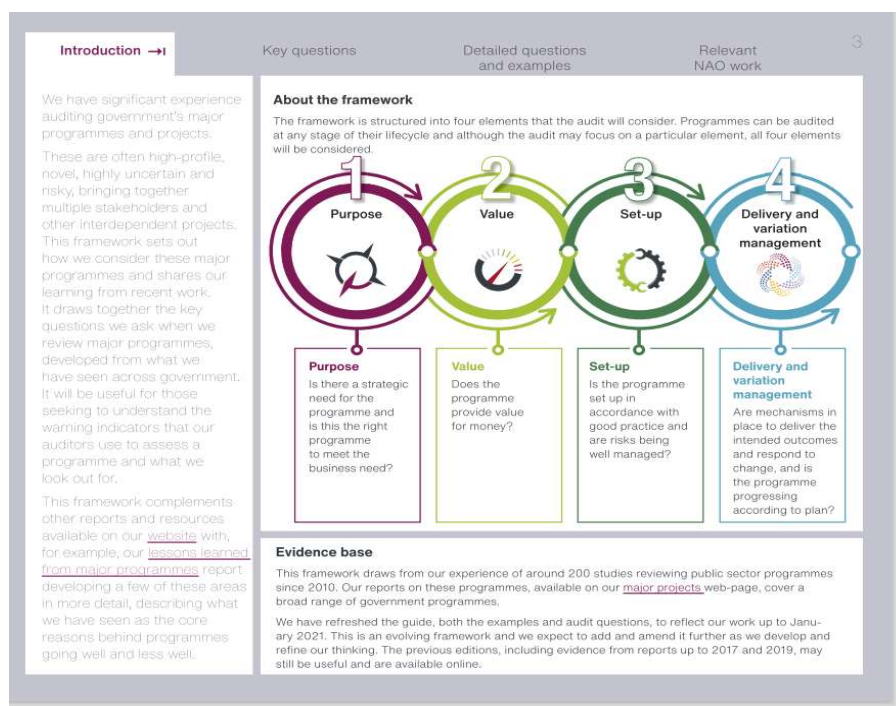
National Audit Office: Session 2022 -23, Report HC 1201: The Report

- a. On 27th March 2023, The National Audit Office (NAO), published report, HC 1201, High Speed Two: Euston, Department for Transport, High Speed Two Ltd.
- b. The Report covers the period between January 2020 and April 2023, although the problems with the development at London Euston began prior to the Royal Assent for High-Speed Two (HS2), the London to West Midlands Railway on 23rd February 2017.

The Report: Criteria

Framework to review programmes – elements.

- c. On page 40 of The Report, under the heading, **“Developing our audit questions”**, states that “In developing our audit questions, we draw on our April 2021 guidance, **“Framework to review programmes”**”, which includes in its introduction, the framework structure, which is reproduced below.



- d. The findings in the Report, pages 7 – 12 are neither defined by the element shown above nor do the recommendations address shortcoming related to the elements the Report should consider.

¹ National Audit Office, *Framework to Review programmes*, April 2021

- e. There now follows a Commentary on the Report and analysis aligned to the review elements.

Analysis and Commentary

Structure and Content

- a. The analysis and commentary is set out in the order of the sections of The Report.
- b. The analysis takes account of evidence provided to the NAO and reconciles it with evidence given to Select Committees of the House of Commons and the House of Lords by other parties including petitions against the proposals at London Euston Station.
- c. Where the commentary makes reference to other documents, they are cited in footnotes on each page.
- d. The commentary refers to the elements recommended for use in the *Framework to Review programmes*” (ibid)
- e. Where there are matters that should have been challenged during the Public Accounts Committee (PAC) Hearing on 24th April 2023, they are highlighted in the Commentary

Period of Analysis and Commentary: October 2015 to April 2023

- f. The period covered by my commentary and analysis is from October 2015, when I first received instructions from clients petitioning against High Speed Two Limited (HS2) proposals for the high-speed railway from London to the West Midlands and against HS2’s proposals for the redevelopment of London Euston Station, until the present, 30th April 2023.
- g. The period covered by this commentary begins before the period covered by The Report to include events that created the current situation.

THE REPORT: ANALYSIS AND COMMENTARY

Part One: pages 1 – 20

Key facts, page 4

Costs

- a. The sums quoted at the head of the report are misleading and incorrect. After The Oakervee Review, DfT, advised by KPMG, which reconciled HS2 Limited estimate for Euston Station was £5.1 bn, exclusive of land take. The costs were at 4th Quarter 2015 prices not 4th Quarter 2019 prices.
- b. At 4th Quarter 2019 prices, the independently assessed cost of the HS2 Station at Euston was £5.61 bn.²
- c. The cost of land take (land acquisition) required by the scheme approved by Parliament in January 2017 for the HS2 project at Euston, is £1.81 bn.
- d. According to industry sources, consultants and contractors, the amount spent by HS2 Limited at Euston for the land take including land take, passed £3.25 bn at the end of 2022.
- e. February 2020, The Oakervee Review; PAC did not address the detailed findings of the review.
- f. Autumn 2021, The Department of Transport decision over the extent of the oversight development was not addressed by the PAC.
- g. £106 million on design work, which has not been taken forward, is at odds with reports in the professional trade press over the past three years, since Oakervee, the “lost costs” have been reported to be as high as £800 million.
- h. March 2023, pausing construction work at the HS2 Euston Station; no indication is given nor did the PAC press for the costs of the pause nor its effects on work to the Network Rail side of the station, which is adversely affected by the HS2 project.

Purpose	Value	Set-up	Delivery

Summary, page 5

² Independent measured approximate estimate using the structure set out in the Rail Method of Measurement (“RMMI”)

- a. Paragraph 4, page 6, the NAO report does not reconcile the costs and the cost effects of the revised approaches to the “Key facts” set out at the start of the report; the PAC did not pursue the matter at the hearing on Monday 24th April 2023.
- b. Scope of the Report, page 6, is unsatisfactory as, without a review of the rest of the HS2 programme including what, realistically, it will deliver, any objective review of the situation at Euston is meaningless.
- c. Fieldwork and affordability; the NAO did not examine the steps taken by HS2 Limited and DfT to manage the affordability of the wider HS2 programme and its impact on the Euston Station; PAC did not challenge this approach.
- d. The costs of the reconciliation carried out by KPMG for DfT during The Oakervee Review, reported costs at 4th Quarter 2015 prices, not 4th Quarter 2019. Using the “All Construction Index” published by The National Audit Office, prices rose by 9.96% during the period between these dates; The PAC does not appear to have been made aware of this error, nor did it challenge the cost base.

Key findings, page 7

- e. Paragraphs 7 and 8, on pages 7 and 8, neither reconcile the budgets with the original estimates for the HS2 project, as approved by Parliament nor do they qualify the “ambitions for Over Site Development” work, with the need to provide adequate foundations, which must be completed during the redevelopment of the station.
- f. Paragraphs 10, page 8, to paragraph 12 on page 9, do not reconcile the budgets with the comprehensive Scope or Work, including foundations and the need to accommodate Crossrail and improved access to the Tube and Sub-surface lines in Euston Road; the PAC does not appear to have been adequately briefed on this subject, so it did not challenge HS2 Limited or DfT at the hearing.
- g. Paragraph 17, page 11, Integration of the HS2 Station and the Network Rail Station; without a comprehensive approach to the entire station development, the layout, including the enhanced foundation work, the Over Site Development cannot proceed, with renders HS2 Limited work to date, its project programme and its estimates of cost meaningless; the PAC does not appear to have been adequately briefed on this subject, so it did not challenge HS2 Limited or DfT at the hearing.

Purpose	Value	Set-up	Delivery

Conclusion, page 12

- h. Paragraph 19, affordable scope; we know, and the NAO has been advised that HS2 Limited’s estimate of costs, approved by Parliament in 2017, of £23.5 bn for Phase 1, was NOT supported by its detailed in house-estimates, which totalled £47.1 bn, at 4th Quarter 2015 prices. Consequently, HS2 Limited and DfT have no possibility of developing an integrated,

affordable scope; the PAC does not appear to have been adequately briefed on this subject, so it did not challenge HS2 Limited or DfT at the hearing.

- a. Paragraph 20, Value for money; without an accurately defined scope of works, including preparing for the Over Site Development and a comprehensive estimate of cost, reconciled with the funds allocated to the project, assessing Value for Money is impossible; The NAO report does not offer its conclusions in the form prescribed on page 3 of the *Framework to review programmes* (ibid); without this analysis, the PAC does not appear to have been adequately briefed on this subject, so it did not challenge HS2 Limited or DfT at the hearing.

Purpose	Value	Set-up	Delivery

Recommendations, pages 13 and 14

- b. Learning from other projects, page 13, HS2 Limited and DfT have been offered data and assistance from many other projects, national and internationally, which it has declined to accept or use. It is not helped by its decision to discount its estimates of cost, without sound reason, by 50.11% (£47.10 bn to £23.50 bn) in 2017; the NAO report does not attempt to reconcile the costs offered by HS2 Limited with the Estimate of Expenses presented to Parliament in 2017 nor did provide any evidence of the detailed estimate, prepared by HS2 Limited, on which the Estimate of expenses was based; the PAC does not appear to have been adequately briefed on this subject, so it did not challenge HS2 Limited or DfT at the hearing.
- c. Collaborative work, paragraph b; we know from our experiences of petitioning lobbying since 2015, HS2 Limited has no interest in working in partnership with any other stakeholder, that it has “gone-it alone” has creating mess we have today.
- d. Other stations, including the HS2 Manchester station, paragraph c, page 13; HS2 Limited is at odds with Transport for Greater Manchester over the basic layout of the Manchester station, preferring a terminus to a through station; HS2 Limited has produced an extensive report³ to justify its position; the report published is in redacted form and is not based on professionally approved, industry accepted methods of analysis of cost nor does it compare the economic effects of its decision of the regional economy; the PAC does not appear to have been adequately briefed on this subject, so it did not challenge HS2 Limited or DfT at the hearing.
- e. HS2 Euston Station and Network Rail Euston Station, integration, paragraph d, page 14; several petitioners drew the attention of both House of Commons and House of Lords Select Committees’ to the lack of integration in the proposals offered by HS2 Limited prior to January 2017; these Committees and HS2 Limited, supported by DfT, ignored all warnings; the PAC does not appear to have been adequately briefed on this subject, so it did not challenge HS2 Limited or DfT at the hearing.

³ Manchester Piccadilly High Speed Station Design of an Alternative Underground Station Options Assessment - Sift Level 2 Appraisal – redacted; 27th June 2022.

- a. Resetting budgets to 2023 prices, paragraph f, page 14; resetting budgets to 2023 prices is a good idea but the Government Funding Envelope should also be revised and approved by Parliament; the NAO is silent on the latter issue.

Purpose	Value	Set-up	Delivery

Background

- b. The High Speed Two programme connectivity, page 15; if the prospects of delivering a station at Euston is in serious doubt, then so is the entire programme as no reasonable alternatives for a southern terminus are offered at Old Oak Common by the report; the PAC neither addressed this issue nor challenged the report; to allow the PAC to adequately challenge HS2 Limited and the DfT on this issue, the NAO must investigate the problem thoroughly and report to Parliament.
- c. HS2 Euston station, complexity, page 15; the complexity was known prior to Royal Assent for Phase 1 and reflected in HS2 Limited's own internal estimates and forecasts; by discounting the Estimate of Expenses, by 50.11% (£47.10 bn to £23.50 bn) the issue and the difficulties resolving it have been "swept under the carpet" by HS2 Limited and DfT; we also pointed out all of these issues with Sam Price's petition⁴ heard on 11th October 2016; the PAC neither addressed this issue nor challenged the report.

Purpose	Value	Set-up	Delivery

Background to Euston station

- c. The background makes no mention of the need to accommodate Crossrail 2 and improve access to the Victoria and Northern Underground lines nor the plan to make a direct connection to the Metropolitan, District and Circle (SSL) line station at Euston Square, all of which was included in the approval given by Parliament in 2017.
- d. In the description of the Over Site Development, there is no mention of the major works required to provide the foundation require for the development.

Purpose	Value	Set-up	Delivery

Figure 1 – Map of the Euston site and approach route for High Speed Two (HS2)

- e. The HS2 approach to Euston is still shown as the route from the tunnels beneath Park Village East, for which HS2 Limited has no viable, safe, or affordable scheme.

⁴ Samuel Price petition HoL-00691, 11th October 2016.

- a. The direct connection to Euston Square Station is omitted.

Purpose	Value	Set-up	Delivery

Figure 2 – Major projects and existing transport infrastructure at Euston

- b. The enabling works, enhanced foundations are not shown on the section drawing.
- c. Crossrail 2 and its relationship to Euston is omitted; *this is an important issue as the Chief Executive of Crossrail 2, Michele Dix, told the Oakervee Review, that, the business case for Crossrail 2 was wholly dependent on HS2 reaching London Euston station.*

Purpose	Value	Set-up	Delivery

Background – paragraphs 1.4 – 1.6

- d. There has been no evidence offered to suggest that any of these recommendations have been addressed by HS2 Limited or DfT
- e. If the statement made in paragraph 1.5 – “*the existing design, first proposed in 2015, was not satisfactory, added unnecessary cost and did not meet the aspirations of the stakeholders.....*” is correct then the PAC did not challenge either HS2 Limited or DfT at the hearing.
- f. Given the importance of the Over Site Development on the design of foundations and their impact on the design of the whole station, Lendlease should have been summoned to give evidence on the progress the design for the OSD.

Purpose	Value	Set-up	Delivery

Figure 3 – Key organisations at Euston

- g. Lendlease is described as the master development partner so why did the PAC fail to call the company to the hearing to give evidence of its progress.
- h. Crossrail 2 is a major organisation, which it is so why did the PAC fail to call the company to the hearing to give evidence of its progress; *the status of the Crossrail 2 project is confused; any assessment of HS2 Limited’s plans for London Euston Station, can only be made once its status is clarified.*

Purpose	Value	Set-up	Delivery

Figure 4 – Timeline of events at Euston 2020 to 2023.

- a. There is no mention of how the integration of London Underground connections and access to Crossrail 2 to the Euston partnership.
- b. The events of October 2020 and April 2021, “Red Team” reviews have never been published; PAC unable to comprehensively question HS2 Limited and DfT; The NAO must ask for a copy of this review and report, only then can the PAC address the issue with HS2 Limited and DfT
- c. The identify of the members of the “Red Team” reviews not disclosed; PAC unable to comprehensively question members of the “Red Team”; the identity of the parties forming the “Red Team” must be disclosed to the NAO for inclusion in its report, only then can the PAC address the issue with HS2 Limited and DfT

Purpose	Value	Set-up	Delivery

Part Two

The Report: pages 21 – 30

The station redesign and affordability challenge

- a. What documents were provided to the NAO from The Oakervee Review.
- b. Bearing in mind, KPMG, on behalf of DfT were unable to reconcile the costs stated in the then Chairman's Stocktake Report (August 2019) with the scope of the HS2 project works. What evidence was provided to the NAO of HS2 Limited/DfT efforts to stay within budget including providing evidence of how the budget was set; *(at the HS2 Costs Roundtable on 2nd October 2019, Messrs Bradley [formerly Chief Financial Officer, HS2 Limited], Dorans [formerly Project Controls Director, HS2 Limited] and Smart [Director HS2 Limited] were unable or unwilling to provide Oakervee with a copy of HS2 Limited internal estimates for the project.)*
- c. Wider inflationary pressures, did NAO consider the exceptional inflation caused to the UK construction industry by the HS2 project alone?

Purpose	Value	Set-up	Delivery

The budget for Euston Station

- a. DfT budget for Phase I of £44.6 bn, paragraph 2.2, ignores the finding of the Oakervee Review, which was advised by KPMG on behalf of DfT that HS2 Limited estimate for Phase I was £55.995 bn; included in that total was the cost of a complete redevelopment of London Euston Station for HS2 Limited and Network Rail, estimated at £7.40 bn; All costs are at 4th Quarter 2015 prices.
- b. HS2 Limited budget, paragraph 2.3, according to internal documents provided by “Whistle-blowers” was never £3.0 bn and took no account of the cost of accommodating Network Rail or the provision of adequate foundations to support the Over Site Development.
- c. Complex scope of HS2 Euston Station, paragraph 2.4, the complexity of the project was outlined to DfT and HS2 Limited in very considerable details between October 2015 and 2016 and detailed estimates of cost were given by the Euston Express team, who also priced HS2 Limited proposals and shared them with HS2 Limited and DfT; the advice and costs were ignored by HS2 Limited and DfT, who kept the Estimate of Expense for the Phase I Hybrid Bill at £23.5 bn; this figure included £3.69 bn for all of the stations on the Phase I; however the estimated cost of Euston (HS2/NR) in this discounted figure was 1.80 bn including all HS2 Limited allowance for risk and the DfT contingencies; the costs were not underestimated but purposely understated; refer to the summary of costs provided by HS2 Limited and DfT to the meeting held on 18th January 2017, chaired by Lord Ahmad of Wimbledon, attended by Lord Berkeley and M H Byng.
- d. HS2 Limited allocated risk contingency, paragraph 2.5, according to the cost summary provided on 18th January 2017, was £3.52 bn for the whole of Phase I; The proportion for

Euston station was £373 million; from the cost summary, the balance of contingency held by DfT was £5.92 bn, of which £628 million was the proportion allocated to Euston Station.

- a. From late 2019, HS2 Limited began reporting cost pressures, paragraph 2.6, the increase in cost did NOT reflect the immaturity of the original design but stemmed from the purposely discounted Estimate of Expenses, with the Hybrid Bill, and the omission of the costs for providing adequate foundations for the Over Site Development.
- b. Paragraphs 2.1 to 2.5, was the NAO made aware of all these estimates of costs? Without them the PAC was unable to challenge any of the statements made by DfT and HS2 Limited at the Hearing on 24th April 2023.

Purpose	Value	Set-up	Delivery

The HS2 Euston station design

- c. The Oakervee Review, paragraph 2.7, the cost of all of the options to simplify and improve the efficiency of Euston as one station for HS2 and Network Rail, were included in the revised HS2 Phase 1 budget, £55.995 bn; details of a solution had been presented to the House of Lords Select Committee on 11th October 2016 by the Euston Express proposal (Sam Price, petition HoL-00691, 11th October 2016); the Euston Express proposal considered the needs of HS2 and Network Rail as well as London Underground and Crossrail 2; did NAO consider this evidence, without which, the PAC would have been unable to challenge any of the statements made by DfT and HS2 Limited at the Hearing on 24th April 2023.
- d. DfT instructed HS2 Limited to assess four options of the design, paragraph 2.8; there is no evidence that DfT or HS2 Limited considered the Euston Express proposal, which had been commended by HS2 Limited at the Select Committee Hearing on 11th October 2016; were the details of the review of the four options shown in Figure 5 shared with the NAO? Without them, the PAC was unable to challenge any of the statements made by DfT and HS2 Limited at the Hearing on 24th April 2023.
- e. DfT option of a 10-platform station, paragraph 2.9; were the details of the DfT decision shared with the NAO, without which the PAC would have been unable to challenge any of the statements made by DfT and HS2 Limited at the Hearing on 24th April 2023?

Purpose	Value	Set-up	Delivery

Figure 5 – page 23

- a. Of the four options mentioned, have they been shared with the public for scrutiny, is there a schedule available comparing the construction cost of each and the period for delivery with the budget (Government Funding Envelope) for the project as approved in February 2017?
- b. Without the details set out in notes (i) and (ii) above, the PAC would be unable to challenge any of the statements made by DfT and HS2 Limited at the Hearing on 24th April 2023.

Purpose	Value	Set-up	Delivery

Euston station, uncertainty and effect on supply chain confidence, paragraph 2.10 – page 23

- c. What explanation did HS2 Limited offer for being unable to establish a baseline from which to plan the delivery of the works: Note in October 2016, HS2 Limited and DfT assured the House of Lords Select Committee hearing the Euston Express proposal (Sam Price, petition HoL-00691, that although they commended the proposal with the petition, they wished to proceed with the plans deposited with the Hybrid Bill as they were easier to deliver and with budget”.
- d. Given the statement made on 11th October 2016, the damage to the supply chain confidence was entirely of HS2 Limited’s making.
- e. Was the PAC made aware of the background to this statement as without it, the PAC would be unable to challenge any of the statements made by DfT and HS2 Limited at the Hearing on 24th April 2023?
- f. Paragraph 2.11 – page 24, according to press releases over the past two years, 2020 to 2022, the amount of money written off by HS2 Limited in respect of Euston design works is £800 million; is this figure or the figure of £105.6 million correct and did HS2 Limited provide the NAO with details of these lost costs?
- g. Paragraph 2.11, the options available to HS2 Limited; these were available to HS2 Limited from the inception of the project, the SRO study was unnecessary, as the need to integrate the HS2 and Network Rail stations was discussed from 2015 onwards; integration of the design and construction of the stations allows the comprehensive enhanced Over Site Development to proceed, providing the maximum benefit to the station and to the surrounding areas.’; however the budget of £483 million for enabling works, which are not defined but presumably covers the cost of the foundations for the OSD, is wholly inadequate. The independently estimated cost of these works is £2.2 bn, at 4th Quarter 2015 prices.
- h. Paragraph 2.12 – page 24 - Enhanced Over Site Development was proposed as early as 2008, with the co-ordination of works to protect the station working and associated costs of enhanced foundations being assessed at 4th Quarter 2015 prices, at £2.2 bn.
- a. Paragraph 2.13 – page 24 - Additional funding for the OSD, had HS2 Limited’s Estimate of Expenses, included with the Phase I Hybrid Bill not been purposely discounted by 50.11%, there would have been no need for additional funding and the enabling works could have been

designed with a comprehensive OSD, as proposed from 2008 onwards; the piecemeal funding of the OSD would have been avoided with a proposal from a professional experienced developer.

- b. Paragraph 2.14 – page 24 - OSD limited scope; why was the scope reduced? Lack of available funding in HS2 Limited's discounted Estimate of Expenses or due to the planning constraints imposed by the May of London and the Borough of Camden; if the reduced scope came from planning constraints, these were known prior to Royal Assent for Phase I of project but do not appear to have been acted upon.
- c. Paragraph 2.25 – page 25; contains the first admission in the report that the additional cost of the OSD spending was omitted from HS2 Limited estimates; were the results of the affordability reviews shared with the NAO? Without them, the PAC would be unable to challenge any of the statements made by DfT and HS2 Limited at the Hearing on 24th April 2023.
- d. Paragraph 2.16 – page 25 - no evidence that HS2 Limited's reported estimate were likely to fall within budget; as HS2 Limited Estimate of Expenses with the Hybrid Bill was purposely discounted, without reason. This situation has been apparent since 2017 so why has the NAO not taken stronger action to draw this problem to Parliament's attention; had NAO done so, then the PAC would have been able to challenge any of the statements made by DfT and HS2 Limited at the Hearing on 24th April 2023.
- e. Paragraph 2.17 – page 25 – HS2 Limited revised commercial incentives; these initiatives were unlikely to succeed as HS2 Limited's Estimate of Expenses with the Hybrid Bill was purposely discounted, without reason. Why did the NAO not request that HS2 Limited's estimates be subject to an independent challenge; had NAO done this, the PAC would have been able to challenge any of the statements made by DfT and HS2 Limited at the Hearing on 24th April 2023.
- f. Paragraph 2.18 – page 25 – DfT instructed HS2 Limited to do further work....(pursuant to paragraph 2.17), this exercise was futile as the accurate scope of works was included in the scheme placed before Parliament; for reasons set out above, it was unlikely to succeed as HS2 Limited's Estimate of Expenses with the Hybrid Bill was purposely discounted, without reason.

Purpose	Value	Set-up	Delivery

Figure 8 – page 26

- g. The figure is incomplete as it does not include the work, allegedly, done by HS2 Limited prior to the approval of the Hybrid Bill and after Royal Assent on 23rd February 2017; this work should have included defining the scope of the works, accurately and completely, in the tender documents offered to Mace Dragados, which should also have been reconciled with HS2 Limited estimates, within the Government Funding Envelope; the problem arises as with the comments relating to paragraphs 2.16 to 2.18 inclusive, that HS2 Limited Estimate of Expenses with the Hybrid Bill was purposely discounted, without reason making the construction partner's task of working within it, whilst complying with the scope of the works impossible; all of these papers should have been disclosed to the NAO for its consideration and comment,

then the PAC would have been able to challenge any of the statements made by DfT and HS2 Limited at the Hearing on 24th April 2023.

- a. The figure makes no mention of the requirements to provide suitable, adequate foundations for the OSD; properly briefed, the PAC should have challenged all the statements made by DfT and HS2 Limited at the Hearing on 24th April 2023.
- b. Mention is made of an *independent* (“*should cost*”) estimating team, who is included in this team and why has its findings not been scrutinized by the NAO? Given the evidence offered by HS2 Limited to The Oakervee Review and the apology given to the Review by the then Chief Financial Officer of HS2 Limited, Mr. Michael Bradley, about the level of professional fees HS2 Limited had incurred, why was the “*should cost*” exercise confined to the delivery partner’s costs and why was an examination of HS2 Limited’s costs excluded from the exercise? All of these papers should have been disclosed to the NAO for its consideration and comment, then the PAC would have been able to challenge any of the statements made by DfT and HS2 Limited at the Hearing on 24th April 2023.
- c. Paragraph 2.19 – page 27 – all of the exercises described in this paragraph are, essentially, futile as HS2 Limited Estimate of Expenses with the Hybrid Bill was purposely discounted, without reason; any work done should have been reconciled with the realistic estimate of cost prepared internally for Phase 1, £47.1 bn at 4th Quarter 2015 prices, and details provided; all of these papers should have been disclosed to the NAO for its consideration and comment, then the PAC would have been able to challenge any of the statements made by DfT and HS2 Limited at the Hearing on 24th April 2023.

Purpose	Value	Set-up	Delivery

Inflationary pressures across DfT’s capital programmes

- d. Paragraph 2.20 – page 27 – inflationary cost pressures; HS2 as a dominant, major, resource-absorbing project, delivered in a market, railway-construction infrastructure, which is short of competent staff in sufficient quantities, was always going to attract its own exceptional inflation, in addition to normal construction inflation; this effect on major projects was foreseen and included in the “Rail Method of Measurement” (RMM suite) development by Network Rail and published in July 2012; The RMM suite is managed by an Industry development Group, members of which include HS2 Limited and its supply-chain partners; provision is made for “Exceptional Inflation” in Group Element 5.01 – Inflation and at component 5.01.02.02, Exceptional Inflation, which is defined as “*The additional costs of items or services that are in short supply or subject to abnormal market conditions shall be classed as exceptional inflation*”; HS2 Limited should have made allowances for exceptional inflation in its Estimate of Expenses but as HS2 Limited Estimate of Expenses with the Hybrid Bill was purposely discounted, without reason, no allowance appears to have been made.
- e. Paragraph 2.21 – page 27 – had HS2 Limited made an allowance for exceptional inflation in its Estimate of Expenses then it would have been better able to absorb inflationary pressure within its budget, thus complying with HM Treasury’s standard approach.
- a. Paragraph 2.22 – page 27 – Funding constraints – as with the issues raised by paragraph 2.21, had HS2 Limited made an allowance for exceptional inflation in its Estimate of Expenses then

it would have been able to demonstrate to HM Treasury how it had planned for inflation management and what steps it had taken to mitigate the problems of inflation.

- b. Paragraph 2.23 – page 29 – The size of the HS2 programme - it has been clear the HS2 programme was a dominant, major, resource-absorbing project, delivered in a market, railway-construction infrastructure, which is short of competent staff in sufficient quantities, so the problems should have been foreseen and the programme delivery dates and costs anticipated between the project received Royal Assent in February 2017; the problems now arising appear to be generated by inadequate and incomplete project cost and programme plan, prepared by HS2 Limited, which is showing itself incapable on managing the project; given the statement made by the NAO. In this paragraph, the PAC should have challenged all the statements made by DfT and HS2 Limited at the Hearing on 24th April 2023.
- c. Paragraph 2.24 – page 29 – the statements made in this paragraph by the NAO confirm that the project is out-of-control in respect of time and cost; that the DfT and HS2 Limited are considering reprogramming it, whilst accepting that there will be additional costs from the supply chain, suggests that the project should be suspended, whilst it is replanned and costs and placed in the hands of a competent delivery partner; when considering claims from HS2 Limited and its supply chain for additional costs arising from a suspension, **account should be taken that both HS2 Limited and the supply chain have known from the date of Royal Assent of Phase I of the problems, creating the need to suspend the project, so they should be asked to absorb a large proportion of the suspension and remobilization costs from their own resources.**
- d. Paragraph 2.25 – page 29 – DfT deferring work on Phase 2a and on Euston Station – as a result of this decision, the work on the entire Phase I project should be deferred as there is neither certainty that funds will be available for the project to be completed to provide its southern and northern destinations; during the period of suspension, DfT and HS2 Limited should be charged with providing a realistic, transparent scope of works, project programme and Estimate of Expenses to complete the project; using the “All Construction Indices” published by the NAO, the new, clear Estimate of Expenses should be fully reconciled with the Estimate of Expenses placed before Parliament for approval in 2017.

Purpose	Value	Set-up	Delivery

HS2 Limited spend at Euston as at the end of December 2022

- e. Paragraph 2.26 – page 29 – HS2 Euston station spend (in cash terms) – according to “Whistle-blowers” within HS2 Limited and its supply chain, the construction spend at Euston is at least £1.18 bn at 3rd Quarter 2022; details of the summary provided in Figure 8 on page 30 should have been supplied to and published by the NAO in this report; had they been provided, the PAC could have challenged all of the statements made by DfT and HS2 Limited at the Hearing on 24th April 2023.
- a. Paragraph 2.27 – page 29 – additional costs spent at Euston for enabling works, land and property are said to be £1.5 billion; this not borne out or confirmed by “Whistle-blowers” within HS2 Limited and its supply chain, who argue that theses costs are nearer £3.50 bn;

details of the costs mentioned in this paragraph, should have been supplied to and published by the NAO in this report; had they been provided, the PAC could have challenged all of the statements made by DfT and HS2 Limited at the Hearing on 24th April 2023.

Purpose	Value	Set-up	Delivery

Figure 8 – High Speed Two Ltd.'s (HS2 Ltd.'s) spend on the High Speed 2 (HS2) Euston Station to December 2022

- b. Design costs – members of HS2 Limited supply chain claim that these costs are nearer £650 million, after considering abortive work between 2017 and 3rd Quarter 2022
- c. Preliminaries - members of HS2 Limited supply chain claims that these costs are nearer £205 million, after considering rework due to design changes and project delays, totalling three years, and abortive work between 2017 and 3rd Quarter 2022.
- d. Fees - members of HS2 Limited supply chain claims that these costs are nearer £72 million, after considering rework due to design changes and project delays, totalling three years, and abortive work between 2017 and 3rd Quarter 2022.
- e. Utilities - members of HS2 Limited supply chain claims that these costs are nearer £74 million, after considering rework due to design changes and project delays, totalling three years, and abortive work between 2017 and 3rd Quarter 2022.
- f. Demolition - members of HS2 Limited supply chain claims that these costs are nearer £36 million, after considering rework due to design changes and project delays, totalling three years, and abortive work between 2017 and 3rd Quarter 2022.
- g. Tunnels - members of HS2 Limited supply chain claims that these costs are nearer £27 million, after considering rework due to design changes and project delays, totalling three years, and abortive work between 2017 and 3rd Quarter 2022.
- h. HS2 Limited and DfT should have provided the NAO with full and complete details of the expenditure listed in Figure 8, and allowed time for independent, comprehensive scrutiny as part of the audit of cost; had they been provided, the PAC could have challenged all the statements made by DfT and HS2 Limited at the Hearing on 24th April 2023.

Purpose	Value	Set-up	Delivery

Part Three.

The Report: pages 31 – 38

The Oakervee Review (Oakervee)

Paragraph 3.1, page 31 – Agreed.

- a. It is difficult see whether either the NAO or the PAC have identified any positive changes in the delivery arrangements.

Paragraph 3.2 – page 31

- b. There is still no mention of the work required to provide adequate foundations for the Over Site Development.; The PAC did not question DfT or HS2 Limited about them.
- c. There is still no mention of the work required to provide connections to Crossrail 2 or better connections to the Victoria and Northern Lines now the proposed direct access to Euston Station SSL Station beneath Euston Road; I am unsure if the PAC even knew these works are in the project brief.
- d. Although High Speed Two Limited has been replaced as delivery partner, the Euston Partnership does not appear to be doing any better!

Paragraph 3.3 – pages 31 and 32

- e. It is difficult to dispute the statements made but the problems stem from a flawed Estimate of Expenses and the omission from the scope of works, the foundations required for the OSD.
- f. NAO does not consider this problem; therefore, the PAC could not challenge DfT or HS2 Limited at the Hearing on 24th April 2023.

Paragraph 3.4 – page 32

- g. The NAO makes no comment on the performance of the Interim Euston Partnership.
- h. The Euston Partnership should have been called as witnesses to the Hearing.
- i. In the absence of criticism from the NAO and the absence of The Euston Partnership from the Hearing, the PAC could not challenge DfT or HS2 Limited at the Hearing on 24th April 2023.

Paragraph 3.5 – page 32

- j. Notwithstanding DfT decision to reject the option of a separate legal body to avoid further delay, further delay has occurred and none of the witnesses were asked to justify their efforts since Oakervee.

- a. In the absence of criticism from the NAO and the absence of The Euston Partnership from the Hearing, the PAC could not challenge DfT or HS2 Limited at the Hearing on 24th April 2023.

Paragraph 3.6 – page 32

- b. The unincorporated joint venture model between HS2 Limited and Network Rail has failed to make much progress since February 2021 but none of the witnesses were asked to justify their efforts since that date.
- c. In the absence of criticism from the NAO, the PAC could not challenge DT or HS2 Limited at the Hearing on 24th April 2023.

Purpose	Value	Set-up	Delivery

The Euston Partnership and integration challenges – page 33

- d. Paragraph 3.7 – page 33; The statement, in the last sentence, “The Euston Partnership provides recommendations for DfT, HS2 Limited and Network Rail to agree and implement through their own internal governance processes” hardly provides any evidence of or confidence in decisive management to resolve the current programme and budgetary problems; NAO should have flagged the problem then the PAC could have challenged DfT or HS2 Limited at the Hearing on 24th April 2023.
- e. Paragraph 3.8 – page 33; The statement in the second line, “stakeholders still find it difficult to agree decisions”, highlights the weakness of the arrangement, which does not address the Oakervee recommendations.; furthermore the mention of the bus station, the taxi rank and the entrance to London Underground highlights major deficiencies in the programme that should have been resolved at the time of Royal Assent, 23rd February 2017; there is still no mention of either the foundations required for the OSD or the access for Crossrail 2; NAO should have flagged these problems then the PAC could have challenged DfT or HS2 Limited at the Hearing on 24th April 2023.
- f. Paragraph 3.9 – page 33; DfT involvement in the transfer of work between HS2 Limited and Network Rail provides further evidence of project management inefficiencies and the failure to address the Oakervee recommendations; NAO should have flagged the problem then the PAC could have challenged DfT or HS2 Limited at the Hearing on 24th April 2023.
- g. Paragraph 3.10 – page 33; Managing the integration of three projects at Euston; NAO highlights, once more the inefficiencies of the project and the failure to address Oakervee recommendations: the PAC should have challenged DfT or HS2 Limited at the Hearing on 24th April 2023.

Purpose	Value	Set-up	Delivery

Figure 9 – Governance arrangements for the three projects at the Euston site at December 2022 – page 34

- a. The organogram confirms the total inefficiency of the project management set-up, a series of Boards and Committee, none of which has overall authority or control of the project; add to that the comment made in Note 2 at the bottom of the page, “The Landowner’s Representative team within the Euston Partnership manages the contract with Lendlease on behalf of DfT and Network Rail” is astonishing; the success or failure of the design of the station, for both HS2 and Network Rail use is governed by the OSD and the party responsible for the OSD, is neither represented on these board nor does it have control of the process; NAO should have flagged the problem then the PAC could have challenged DfT or HS2 Limited at the Hearing on 24th April 2023.
- b. The PAC should have been briefed in detail about the risks of this arrangement and its likelihood to further jeopardise the programme and increase costs.

Purpose	Value	Set-up	Delivery

Figure 10 – The business case and design stage status of the three Euston projects at February 2023 – page 35

- c. As far as Parliament and the public were aware all these business case processes were complete on 23rd February 2017, Royal Assent for Phase 1; they clearly were not resolved but the absence of business case approval for any of these projects was withheld from the Oakervee Review; NAO should have flagged the problem then the PAC could have challenged DfT or HS2 Limited at the Hearing on 24th April 2023.
- d. The development of Euston station is a railway infrastructure construction project, the management process for which is GRIP (Governance for Railway Investment Projects) or its successor PACE (Project Acceleration in a Controlled Environment, The RIBA Plan of Work process is inappropriate for these projects; NAO should have flagged the problem then the PAC could have challenged DfT or HS2 Limited at the Hearing on 24th April 2023.
- e. The absence of an agreed Full Business Case Approval for the OSD is alarming; the OSD must have a business case before it can proceed; the reference to the OSD being up to RIBA Plan of Work Stage 3 is really putting “the cart before the horse” and is both misleading and irrelevant; NAO should have flagged these problems then the PAC could have challenged DfT or HS2 Limited at the Hearing on 24th April 2023.
- f. Note 2 stating that “HS2 Euston is in the business case for HS2 Phase 1” is a further cause of major concern as the Business Case for Phase 1 is already very weak; NAO should have flagged the problem then the PAC could have challenged DfT or HS2 Limited at the Hearing on 24th April 2023.

Purpose	Value	Set-up	Delivery

Paragraph 3.11 – page 35

- a. The statement “There is not yet a comprehensive and detailed integrated plan for the programme of works.....” is a damning indictment of the stage of the works at Euston; ; NAO should have flagged the problem then the PAC could have challenged DfT or HS2 Limited at the Hearing on 24th April 2023.
- b. The statement in the eighth line, “Work on plan has included making revisions following changes to the Network Rail station design.....”, demonstrates that the project design is still fluid, rendering accurate predictions of time for delivery, project cost and a review of the Full Business Case impossible.
- c. Both issues should have been flagged up by the NAO then the PAC could have challenged DfT or HS2 Limited at the Hearing on 24th April 2023.

Purpose	Value	Set-up	Delivery

Paragraph 3.12 – page 36

- d. The NAO report says in its first sentence; “The design of the Network Rail station is uncertain as the project’s next stage has not been approved by DfT and HM Treasury...”, which is another damning statement of the project’s future.; the design of both stations is dependent on the final approved design on the OSD, with its enhanced foundations so the resolution of this delay is unlikely in the near to medium future; A point that is emphasised in the final sentence, which confirms “Any significant change to the scope of the Network Rail project has potential implications for other projects”.
- e. This is one of the strongest statements made in the report so the PAC should have challenged DfT or HS2 Limited at the Hearing on 24th April 2023.

Purpose	Value	Set-up	Delivery

Paragraph 3.13 – page 36

- f. In the first sentence the report says “HS2 Limited has proceeded with its station design on the assumption that the Network Rail project will go ahead but it has made alternative plans in case the redevelopment of the conventional station is not approved”; the is an extraordinary admission by HS2 Limited, leading to a very strong statement from the NAO; to create and tolerate a situation, where the reconstruction of the London’s principal main line station to the Midlands, the North and Scotland is left in limbo for an indeterminate period of time is unacceptable.
- g. This concern is reinforced by the statement in the last sentence, “In October 2022, DfT asked HS2 to consider the design changes, cost and impact to the station, should the extent of the Network Rail project be reduced or entirely removed”. Does this statement imply that no provision could be made for NR trains at Euston. It is a question that the PAC should have asked DfT or HS2 Limited at the Hearing on 24th April 2023

- a. Adding to the economic disruption are the effects of these delays on the London Borough of Camden and its inhabitants, who face disruption for periods much greater than those stated in the Environmental Statements on which the period received Royal Assent from Parliament.
- b. This reinforces the statement made in paragraph 3.12, so the PAC should have further challenged DfT or HS2 Limited, strongly, at the Hearing on 24th April 2023.

Purpose	Value	Set-up	Delivery

Euston delivery model – page 36

- c. Paragraph 3.14 – page 36; DfT review, 2022, the management of the risks outlined in the first three bullet points, is addressed by the appointment of The Euston partnership to manage the project, although it does not have decision-making powers, see last bullet point.
- d. Paragraph 3.15 – page 37; proposed delivery model proposed by DfT; this is a statement hope rather than a decision; it adds to the uncertainty of the future development of Euston and to the successful delivery of the Phase I project.
- e. Paragraph 3.16 – page 37; further work on how the delivery model will work in practice, which take place over the next 18 months, see fourth line, this adds further delay and uncertainty and risk to the project.
- f. Each of these items is serious criticism by NAO on the project set-up, so the PAC should have challenged DfT or HS2 Limited at the Hearing on 24th April 2023.

Purpose	Value	Set-up	Delivery

Figure 11 – page 38 – Progress by the Department for Transport (DfT) and other bodies to improve governance and integration between the projects at Euston.

- g. According to the NAO analysis, none of issues identified by DfT in 2020, post Oakervee, have been addressed, further confirmation that the pct set-up is not fit for purpose.
- h. The findings of the NAO on the project set-up were clear to the PAC, which should have challenged DfT or HS2 Limited at the Hearing on 24th April 2023.

Purpose	Value	Set-up	Delivery

Appendix One

National Audit Office (NAO) audit approach

Paragraph 1 – page 39 – “Euston will be the London terminus station for the High-Speed Two (HS2) programme”.

- a. The Report produced does not comment on the effect of the failure to deliver the Euston project on the purpose of the programme or its business case, which is already very weak.

Paragraph 2 – page 39 – Previous reports on the HS2 programme

- b. There does not appear to be any planned link between this report and earlier reports.

Paragraph 3 – page 39 – Assessment whether DfT and HS2 Limited have addressed the issues identified by Oakervee and in 2020

- c. The scope of NAO assessment does not include the recommendation for an alternative development manager, should DfT and HS2 Limited failed to address the issues.

Paragraph 4 – page 39 – No examination by NAO of the wider progress of the HS2 programme and other projects

- d. This is unacceptable situation, which leaves the NAO audit in a position of only be able to offer negative comments and unable to make constructive suggestions for the future management of the Euston project as well as the remainder of Phase I.

Paragraph 5 – page 40 – NAO fieldwork predates DfT and HS2 decisions to manage wider inflationary cost pressures.

- e. Exceptional inflation brought about by the project should have been in the original Estimate of Expenses; similarly, NAO did not audit HS2 Limited and DfT efforts to manage the affordability of the HS2 programme; given the findings of its earlier reports on the HS2 programme, this is a serious omission.

Paragraph 6 – page 40 – “Developing our audit questions”.

- f. The evidence provided by the NAO report does not address specifically, the purpose of the Euston project and its impact on the wider HS2 programme), value, set up and delivery and variation management.

Paragraph 7 – page 40 - “Our evidence base”

- g. Which organisations or individuals did NAO consult prepare its report? There is no description of the sources of evidence, which suggests most of it came from within DfT or HS2 Limited and not from dissenting or critical sources.

Paragraphs 8 and 9 – page 40 – Interviews

- a. The NAO did not interview any body challenging the project, nor did it take any notes or, apparently, keep any records of the work on which the interviewees relied to answer questions.

Paragraph 10 – page 41 – Interviews with DfT and its bodies

- b. The NAO neither interviewed any body with dissenting views, no-one from The Oakervee Review nor any other body capable of delivering the Euston project, such as Sydney & London Properties Limited, which had a credible scheme for the comprehensive redevelopment of the station.

Document review – pages 41 and 42

- c. There is no evidence that NAO consulted any alternative documents including independent estimates of cost and programme, evidence given to House of Lords Select Committees by petitioners, such as Sam Price [HoL-00691, 11th October 2016]; the working papers supporting the cost estimate appear that prepared by HS2 Limited and covers the period 2020 to 2022; there is no evidence that NAO asked for documents to allow it to consider the cost estimates supporting the Estimate of Expenses at February 2017 and was, therefore unable to reconcile the Government Funding Envelope [financial approval] with the current estimate of cost.

Financial data analysis – page 42

- d. The NAO analysed data provided by HS2 Limited and no other body but the period 2020 to 2022; it also used the types of activities for analysis provided by HS2 Limited, it does not appear to have access to a structured estimate for the project or to the independent forensic resources to prepare one.
- e. The NAO should made PAC aware of the limitations on the sources of evidence and data for its report as well as the timescale it considered, 2020 to 2022; NAO should have made PAC aware that it had neither considered external nor analysed and reconciled the current cost with those provided by DfT and HS2 Limited to Parliament in 2017; there is no reason why NAO should have limited the source and scope of its report, bearing in mind it has audited HS2 Limited since 2013 and would have been well aware of the cost trends.

Paragraph 14 – Site visit

- f. The NAO visited the site with HS2 Limited; there does have ben anyone present to offer objective advice about the project and the impact of the proposed impracticable location of the tunnels from Old Oak Common on the station development.

THE REPORT CONCLUSION – ELEMENTS OF REVIEWING CRITERIA

Introduction to this section

Methodology

- The Report claims that it has followed the guidelines set out in “*The Framework to review programmes*” (*ibid*), however its findings are not set out in the form of the elements of that guideline.
- This paper attempts to reconcile its findings with the reviewing elements in the sections, which follow.
- Rather than setting out the results of the analysis in this section, the finding for each paragraph or paragraphs of the report have been included as a “red, amber, green” (RAG) summary of each section, where the values are as follows:-

Satisfying element	Improvement required	Fails to satisfy element

Reconciliation with reviewing criteria

Purpose

- The question set in the element is:-

“Purpose – is there a strategic need for the programme and is this right programme to meet the business need?”

- By mapping the findings of the Report with the elements in the guidelines, the conclusion is that the project does not demonstrate any **purpose** in the works under way at London Euston Station.

Purpose	Value	Set-up	Delivery

Value

- The question set in the element is:-

“Value – does the programme require value for money?”

- By mapping the findings of the Report with the elements in the guidelines, the conclusion is that the project does not demonstrate the **value** of the works under way at London Euston Station.

Purpose	Value	Set-up	Delivery

Set up

- a. The question set in the element is:-

Set-up – is the programme set up in accordance with good practice and are risks being well managed”.

- b. By mapping the findings of the Report with the elements in the guidelines, the conclusion is that despite repeated criticism of the project set up, it does not demonstrate that the **set up** the works under way at London Euston Station reflects good practice or that the project is being well managed.

Purpose	Value	Set-up	Delivery

Delivery and variation management

- c. The question set in the element is:-

Delivery and variation management – Are mechanisms in place to deliver the intended outcomes and respond to change and is the programme progressing according to plan?

- d. By mapping the findings of the Report with the elements in the guidelines, the conclusion, taken from the many sections in the report, which address these issues, is that they do not demonstrate that the **Delivery and variation management set up** the works under way at London Euston Station reflects good practice or that the project is being well managed, with a robust and valid change management process in place.

Purpose	Value	Set-up	Delivery

Overall analysis and conclusion

- e. When the Report considers all aspects of the project to redevelop London Euston Station and reconciles the current situation with the elements in the *Framework to review programmes*” guidelines, it should have reasonably concluded that the project satisfied none of the elements and that the PAC should have been advised before the the Public Accounts Committee (PAC) Hearing on 24th April 2023.

Purpose	Value	Set-up	Delivery

The Report, Analysis and Commentary ends.

Executive Summary

Analysis and commentary findings

Had the National Audit Office (NAO) reconciled its findings with the elements of its publication “*Framework to review programmes*”, then the results would have been, using the “Red, Amber, Green” (RAG), as follows:-

Purpose

Analysis result	Fails to satisfy element

Value

Analysis result	Fails to satisfy element

Set-up

Analysis result	Fails to satisfy element

Delivery and variation management

Analysis result	Fails to satisfy element

**Lord Berkeley,
House of Lords**

**Michael Byng
Coventry
18th June 2023**