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The Cambridge South East Transport Order

Cambridgeshire County Council

Transport and Works Act 1992

Transport and Works (Inquiries Procedure) Rules 2004

Inquiry into:

THE CAMBRIDGE SOUTH EAST TRANSPORT ORDER

PROOF OF EVIDENCE of

Tali Diamant

of AtkinsRéalis

In respect of the Business Case

On behalf of Cambridgeshire County Council

10th November 2026

Planning Inspectorate Reference: DPI/E0535/25/7

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1. INTRODUCTION

1.1.1 Greater Cambridgeshire Partnership (GCP), on behalf of Cambridgeshire County Council (CCC) (the Applicant), is applying to the Secretary of State (SoS) for Transport for a Transport and Works Act Order (TWAO) to authorise the construction, operation and maintenance of a guided busway to the South East of Cambridge, namely the Cambridge South East Transport Phase 2 (CSET2), hereafter referred to as 'the Scheme'.

1.1.2 The Scheme enables significant housing and employment growth in Cambridgeshire and is designed to provide a dedicated Guided Busway from the Cambridge Biomedical Campus (CBC) to a new Travel Hub located near the A1307/A11/A505 road junction, south-east of the village of Babraham. The route will connect to the existing guided busway at the CBC and will include three intermediate bus stops at Great Shelford, Stapleford and Sawston. It is expected that in the order of up to 8 Services per hour in each direction will operate between Cambridge City Centre and the Travel Hub, with 2 of the 8 services continuing beyond the Travel Hub to serve Linton and Haverhill.

1.1.3 A path for walkers, cyclists and horse riders will run alongside the Guided Busway. The Travel Hub will provide a Park & Ride facility for journeys to and from Cambridge city centre and the CBC. Bus services using the Guided Busway will continue beyond the Scheme infrastructure to serve Cambridge, the CBC and surrounding villages. A fuller description of the scope of the Scheme is provided in the Applicant's Statement of Case **[CD3-01, page 11]**.

1.2 Qualifications and Experience

1.2.1 My name is Tali Diamant. I am an Associate Director for Economics and Business Case with AtkinsRéalis. I have a Master's Degree in Economics, I am a Member of the Institute of Economic Development; an Accredited Practitioner: UK Treasury Better Business Cases; a Member of the Department for Transport's (DfT) Shadow Joint Analysis Development Panel and the Chair of the Transport Economist Group.

1.2.2 I am a transportation business case specialist with 24 years professional experience including in economic impact analysis, delivering business cases and providing policy development advice and strategic analysis for major infrastructure investment.

1.2.3 I have extensive experience developing business cases for road and public transport schemes in the UK including schemes in Cambridgeshire such as the early Strategic Outline Business Case for the A428 Cambourne to Cambridge Better Bus Journeys Scheme; the Outline Business Case for the Cambridge Southwest Travel Hub and the Full Business Cases for a number of Cambridge Greenway schemes.

1.2.4 I am providing this evidence in my capacity as a senior Business Case specialist at AtkinsRéalis instructed by GCP, on behalf of CCC, in relation to this Inquiry.

1.3 Scope of Evidence

1.3.1 The scope of my evidence covers the business case for the Scheme and option assessment and appraisal.

1.3.2 My evidence covers the selection of the preferred option for the Scheme and the Value for Money the Scheme delivers as reported in the Outline Business Case **[CD1-19],** Strategic Case Refresh **[CD1-20]**, Business Case addendums **[CD1-21 to CD1-24]** and the 2026 Economic Appraisal Refresh **[CD21-20]**. Other relevant documents are the Option Appraisal Report **[CD1-15.02]**, the On Road Alternative Option Technical Note **[CD12-12]** and the Applicant's Statement of Case (SoC) **[CD3-01]**.

1.3.3 The evidence I have presented in my Proof of Evidence (PoE) does not unnecessarily replicate the technical information presented in these documents. Where other information is replicated or quoted a Core Document (CD) reference is provided.

1.3.4 My evidence demonstrates that the preferred option is the optimal option for achieving the Scheme's objectives under constraints and that the preferred option meets strategic objectives and delivers Value for Money.

1.3.5 My evidence is set out in the following sections:

- Section 2 reflects the Statement of Matters dated 19 October
- Section 2.2 discusses the aims and objectives and the need for the Scheme
- Section 4 discusses the evolution of the optioneering process resulting in the preferred option for the Scheme. My proof provides an explanation of the process of options development from Draft Concepts to Preferred Options.
- Section 5 discusses the 2024 Outline Business Case update for the Scheme.
- Section 6 discusses the On-Road Option Technical Note **[CD12-12]** produced in August 2025 to directly compare the on-road option and the Scheme.
- Section 7 presents the 2026 appraisal update of the Scheme and refers to the 2026 Economic Appraisal Refresh **[CD21-20]**.
- Section 8 sets out my response to objections and representations relevant to business case and option development related issues.
- Section 9 sets out my conclusions.

2. MAIN ISSUES / STATEMENT OF MATTERS

2.1.1 Table 1 sets out the Statement of Matters dated 19 October relevant to my evidence and identifies where these matters are addressed in my Proof of Evidence.

Table 1 - Coverage of matters in this Proof of Evidence as set out in the Statement of Matters dated 19 October

Statement Of Matters Item	Statement of Matters dated 19 October Text	Coverage through Proof of Evidence	Coverage through Proofs of Evidence of others
1	The aims and objectives of, and the need for, the Scheme.	I summarise the evidence relating to the aims and objectives of the Scheme and the need for intervention. In Section 5 I discuss the case for change established through the Outline Business Case **[CD1-19]** and subsequently reviewed through the Strategic Dimension Refresh **[CD1-20]**.	Mr. Baker **[CD27-01 APP-W2-01]** explains the background to the Scheme including governance and the policy context within which it sits. Ms McDade **[CD27-01 APP-W10-01]** provides further details on the various planning policies which prevail. Mr. Shipley **[CD27-01 APP-W4-01]** summarises the transport modelling undertaken to support the economic assessment of the Scheme and summarises the model outputs that are relevant to the objectives of the Scheme and summarises how the Scheme performs against these

			objectives in terms of the transport modelling
3	The main alternative options considered by CCC and the reasons for choosing the preferred option set out in the Order. The cost of the scheme and overall benefits.	I summarise the business case assessment and appraisal of the alternatives considered, the evidence that informed the identification of the preferred option, and the evidence relating to the Scheme cost, overall benefits and Value for Money, referring to Options Appraisal Report **[CD1-15.02]**; Outline Business Case **[CD1-19]**; Strategic Dimension Refresh **[CD1-20]**; Economic, Financial, Commercial and Management Dimension Addendums **[CD1-21 to CD1-24]**; On-Road Option Technical Note **[CD12-12]**.	Mr. Baker **[CD27-01 APP-W2-01]** summarises the option selection process and the main factors leading to the preferred option, and the process followed in the development and consideration of alternatives. Mr Connelly **[CD27-01 APP-W9-01]** describes the BW4B alternative option Mr Parsons **[CD27-01 APP-W7-01]** describes the relevant impact of the Preferred and BW4B options. Mr. Shipley **[CD27-01 APP-W4-01]** summarise the transport modelling undertaken with regards to the On Road Option
4c	The potential disruption to, and effects on the safety and wellbeing of users of, non-motorised routes such as cycleways, footpaths and bridleways.	I discuss the benefits to walkers and cyclists with reference to the Options Appraisal Report **[CD1-15.02]**; Outline Business Case **[CD1-19]**; Strategic Dimension Refresh **[CD1-20]**; Economic, Financial, Commercial and Management Dimension Addendums **[CD1-21 to CD1-24]**; On-Road Option Technical Note **[CD12-12]** and the 2026 Economic Appraisal Refresh **[CD21-20]**	Mr Baker **[CD27-01 APP-W2-01]** sets this issue in the context of wider policy across the County. Mr Connelly **[CD27-01 APP-W9-01]** addresses the specific safety of users of non-motorised routes.

2.1.2 In relation to matters 1 and 3 and 4c I demonstrate that the Scheme was developed carefully over time to address the need for sustainable transport in support of significant growth in the South Cambridgeshire region.

2.1.3 After setting out the objectives of the Scheme I present the optioneering history to highlight the selection of the preferred option (the Scheme) was a result of rigorous analysis as well as

consultation, after which I demonstrate the Scheme provides Value for Money to taxpayers and the public purse.

2.2 Matter 1: The aims and objectives of, and the need for, the Scheme

2.2.1 In relation to Matter 1, I summarise the business case evidence relating to the aims and objectives of the Scheme and the need for intervention. I explain the case for change established through the Outline Business Case **[CD1-19]** and subsequently reviewed through the Strategic Dimension Refresh **[CD1-20]**, including the relationship between the identified need for intervention and the five Scheme objectives set out in Section 3.1 of my evidence. This is discussed further in Section 5.

2.2.2 Mr Baker's evidence addresses the wider background to the Scheme, including its governance and the transport strategy, policy and economic context within which it has been developed **[CD27-01 APP-W2-01]**.

2.3 Matter 3: The main alternative options considered by CCC and the reasons for choosing the preferred option set out in the Order. The cost of the Scheme and overall benefits

2.3.1 In relation to Matter 3, I explain the business case assessment and appraisal of the alternatives considered and the evidence that informed the identification of the preferred option. I also address the subsequent assessment of the on-road alternative. These matters are discussed further in sections 4,5 and 6 of my Proof.

2.3.2 My evidence addresses the Scheme cost, its treatment within the economic appraisal, the benefits assessed through the business case and economic appraisal, and the resulting Value for Money assessment. The latest economic appraisal results relied upon in my evidence are presented in the 2026 Economic Appraisal Refresh **[CD21-20]** and considered by me in Section 7.

2.3.3 Mr Baker's evidence addresses the wider history of the Scheme's development, including consultation, governance and the associated decision-making process **[CD27-01 APP-W2-01]**.

3. THE AIMS AND OBJECTIVES OF, AND THE NEED FOR, THE PROPOSED CAMBRIDGE SOUTH EAST TRANSPORT ("THE SCHEME")

3.1 Aims and objectives

3.1.1 The objectives of the Scheme are as set out in the Outline Business Case **[CD1-19, page 127]**, and confirmed in the Strategic Dimension Refresh **[CD1-20, page 78]**. The aims and objectives are also set out in the Applicant's Statement of Case **[CD3-01, pages 30-31]**.

3.1.2 The objectives of the Scheme are:

- Objective 1 - Improve connectivity to employment sites in South East Cambridge and central Cambridge
- Objective 2 - Support the continued growth of Cambridge and South Cambridge's economy
- Objective 3- Improve road safety for all users of the A1307 corridor
- Objective 4 - Relieve congestion and improve air quality in South East Cambridge
- Objective 5 - Improve active travel infrastructure and public transport provision in South East Cambridge

3.1.3 My Evidence demonstrates that the Scheme has been designed to meet these objectives.

3.1.4 The wider transport strategy, policy and economic context within which the Scheme sits, and which has guided its development and objectives, is addressed in Section 5.1 of the Applicant's Statement of Case **[CD3-01, page 21]** and in the Proof of Evidence of Mr. Baker **[CD27-01 APP-W2-01]**. In my Evidence, I consider how the Scheme objectives informed the assessment of the alternative options and the identification of the preferred option.

3.2 Need for and Purpose of the Scheme

3.2.1 The overall need for intervention is set out in Section 5.4 of the Applicant's Statement of Case **[CD3-01, pages 27-28]** while the wider purpose of the Scheme is set out in Section 6.1 **[CD3-01, pages 28-31]**.

3.2.2 There is a need to sustainably accommodate significant growth in population, planned and potential employment and housing in Cambridge and South Cambridgeshire through improvement in public transport accessibility and connectivity.

3.2.3 Along with three other corridor projects, namely Cambridge Eastern Access, Cambourne to Cambridge and Waterbeach to Cambridge as well as local and regional sustainable transport programmes such as East West Rail (EWR), Cambridge South Station and Cambridge Greenways, the Scheme is crucial in the plan to provide sustainable transport connectivity between South Cambridgeshire and Cambridge including for walkers, cyclists and horse riders. The Scheme will help allay forecast future congestion, delay and road safety concerns; improve access to employment, education, services and leisure opportunities by alternatives to the private car for growing communities around Cambridge; improve bus journey times and reliability; and futureproof the transport network to support sustainable growth.

3.2.4 Without intervention, transport infrastructure in Cambridge would remain inadequate to meet current and future travel demand. Congestion and delays would persist and worsen, while limited public transport options from the south-east of Cambridge would continue to constrain access to employment, education and leisure opportunities. Without significant improvements to existing public transport provision, it would also be challenging to achieve a meaningful shift away from private vehicle use and overcome the high level of car dependency in the area.

3.2.5 Mr Baker addresses the detailed transport, policy and economic context underpinning the need for the Scheme in his Proof of Evidence **[CD27-01 APP-W2-01]**. For the purposes of my evidence, the identified need and Scheme objectives establish the strategic basis against which the alternative options were assessed through the business case. Section 4 demonstrates how the option development and selection process was underpinned by the need for a sustainable transport solution with the agreed objectives leading to the identification of the preferred option. Section 7 of my proof draws on the 2026 appraisal results from the 2026 Economic Appraisal Refresh **[CD21-20]** and demonstrates that the Scheme meets the objectives.

4. THE OPTIONEERING PROCESS AND THE IDENTIFICATION AND SELECTION OF THE PREFERRED OPTION (THE SCHEME)

4.1 The Options Development Process

4.1.1 The development of the Scheme has been underpinned by a comprehensive options assessment process. The assessment of alternatives which led to the preferred option for the Scheme that forms the basis of this application has been subject to several rounds of optioneering, interlinked with public consultation activities to help reinforce the decisions made throughout the process. Mr. Baker discusses the option development and consultation process and the various consultations as well as the relevant approvals in his proof **[CD27-01 APP-W2-01 Section 6].**

4.2 Early Engagement Consultation (2015)

4.2.1 In July 2015, GCP held a series of workshops with stakeholders (invited local businesses, local councillors and other interest groups in Granta Park, Linton Village Hall and Babraham Research Campus). A separate workshop was held at Addenbrooke's Hospital / Cambridge Biomedical Campus (CBC). These workshops led to the identification of issues to be addressed/considered **[CD12-13, page 21]**.

4.2.2 The issues which were identified by stakeholders in the workshops included:

- High car dependency for commuter trips from Haverhill.
- Poor pedestrian/cycle infrastructure between Cambridge and Babraham Research Campus.

- Inefficient/unreliable public transport provision, with high levels of congestion/delays related to bus services between Haverhill and Cambridge.
- Safety concerns along the A1307 corridor associated with traffic collisions at Hinton Way, Haverhill Road and Granta Park junction.
- Traffic congestion along the A1307.
- Inadequate equestrian infrastructure.

4.2.3 Associated preliminary technical work was developed by GCP, based on the issues raised in these workshops, which led to the emergence of early options as discussed in the draft concepts report **[CD12-13]**.

4.3 Draft Concepts Report (Jan 2016) [CD12-13]

4.3.1 In response to the issues identified along the A1307 corridor (detailed in paragraph 4.2.2 above), early optioneering was undertaken and options were developed by a consultancy, WSP, on behalf of CCC and Greater Cambridge City Deal (which later became GCP) to address these issues. The A1307 Haverhill to Cambridge Corridor Draft Concepts Report **[CD12-13]** was published in 2016 and presented the long list of options. It covered a wide range of potential interventions including a Park & Ride, Bus Rapid Transit and Active Travel proposals. These formed the basis for the initial sifting of options prior to further refinement in later stages.

4.3.2 To refine the long list, WSP carried out a high-level assessment of the major strategic concepts identified in the Draft Concepts Report **[CD12-13, page 9]**. This initial assessment considered factors such as deliverability, cost, value for money and alignment with City Deal objectives, which aimed at unlocking major growth and economic potential in the greater Cambridge area. To ensure alignment with the project objectives and the City Deal criteria, this Report outlined the key outcomes of the proposals required for the corridor, including improving journey time reliability, enhancing safety for all users, delivering substantial improvements to active travel and public transport, increasing capacity for sustainable trips to support growth, managing traffic demand, and improving air quality. The report recommended discounting several whole corridor concepts including reopening the former Haverhill-Cambridge railway, full length Bus Rapid Transit proposals and major highway widening because they delivered poor value for money or could not be delivered within City Deal timescales **[CD12-13, pages 21-24]**.

4.3.3 The remaining options formed a refined long list, which WSP then appraised using DfT's Early Assessment and Sifting Tool (EAST) framework **[CD13-14]**. The EAST framework provides a structured multi-criteria assessment across the five cases of the transport business case (Strategic, Economic, Financial, Commercial, and Management), enabling a consistent comparison of performance and feasibility.

4.3.4 The EAST assessment showed a clear differentiation between options **[CD12-13, page 25]**. Options that demonstrated strong performance, meaning scoring well on strategic fit, deliverability, public acceptability, environmental benefits and economic performance included:

- Park & Ride concepts (1A and 1B), which supported demand management and contributed to reduced car trips into Cambridge;
- Rapid Transit concepts (2A–2E) – segregated off-highway options, which offered the greatest journey time savings, reliability and opportunity for future growth led public transport improvements;
- Cycling and walking concepts (3A–3D) that filled gaps in the corridor's active travel network and delivered strong strategic and environmental benefits; and
- Bus priority schemes (notably Linton Bus Priority, Concept 2C), which addressed key congestion pinch points.

4.3.5 Low-scoring concepts (including Corridor-wide road widening, Dualling of the A1307, and a Full-length Bus Rapid Transit on the disused railway corridor) were found to deliver poor value for money, involved major engineering and land take constraints, or were incompatible with City Deal funding timescales **[CD12-13, pages 24-25]**.

4.3.6 Overall, the EAST assessment produced the concept option shortlist, consisting of a balanced package of public transport, Park & Ride, active travel and safety options identified as most capable of addressing the corridor's problems while supporting anticipated economic and housing growth. This shortlist was subsequently packaged into 11 initial high-level concept options – covering a range of on-highway and off-highway public transport measures, Park & Ride proposals, and cycling and walking improvements, with the intention to reflect the realistic intervention types that could be taken forward on the A1307 corridor. These were then brought to the Three Campuses Consultation in June - August 2016, discussed in section 4.4.

4.4 Three Campuses Consultation (June - August 2016)

4.4.1 Following the publishing of the Draft Concept Report in January 2016 **[CD12-13]** and the subsequent shortlisting of 11 high-level concept options, the Three Campuses to Cambridge Consultation was held between 16 June and 1 August 2016. This was the first round of formal public consultation on the Cambridge South East Transport Study **[CD1-05.01]**. It sought feedback on the 11 initial high-level concept options for bus, cycling, and walking improvements across the Cambridge South East corridor. The aim was to understand the public's views on the interventions identified and gather feedback regarding deliverability, environmental sensitivity and transport needs across the A1307 corridor. Of the corridor options presented, three were identified as having been already discounted **[CD1-05.01, page 28]**. These were:

- The re-instatement of the former Haverhill to Cambridge railway line (including the Shelford/Stapleford alignment)
- A bus rapid transit corridor re-using the former railway corridor as an off-road route
- The dualling of the A1307.

4.4.2 These options were discounted due to it not being feasible to complete them within agreed City Deal timescales, or because they provided a poor return on investment or were unaffordable, with the capital cost exceeding the funding available. Appendix B of the A1307 Haverhill to Cambridge Corridor Draft Concepts Report provided a Draft Rail Viability Technical Note **[CD12-13(Appendix B) page 52]**, which details the constraints associated with reinstating the former railway line by section which are summarised in the report and include extensive land acquisition and deviations from the historic alignment along with significant new structures and refurbishment of disused / existing structures **[CD12-13 (Appendix B Section 3) pages 66]**.

4.4.3 The consultation findings, as reported in the 2016 Consultation Report **[CD1-05.01, pages 43-44]**, indicated a general preference for solutions that could be delivered within the existing public highway boundary, before considering additional land acquisition due to concerns about environmental impacts. This engagement helped to shape subsequent option development, including the Local Liaison Forum (LLF) led work in 2017 and the formulation of the three high-level strategies consulted on in 2018.

4.5 Preferred Options Report & Local Liaison Forum (Feb 2017) [CD12-03]

4.5.1 The Preferred Option Report (February 2017) presented a refined set of feasibility design options for bus, cycling and walking improvements. The development of these options was informed by traffic modelling and engineering feasibility assessments.

4.5.2 The Preferred Options Report was accepted by the GCP Executive Board in March 2017, with the recommendation that further public consultation be delayed until workshops were held with the LLF, the role of this forum is discussed in further detail within Mr Baker's Proof of Evidence **[CD27-01 APP-W2-01, Section 6.5]**.

4.5.3 The LLF was convened in February of 2017, with several workshops held over the course of the year. These workshops were intended to identify any missing opportunities for sustainable transport interventions and support in the refinement of these identified opportunities. These forum engagement sessions refined ideas raised in the 2016 Three Campuses Consultation, concepts from earlier technical work, and additional proposals put forward by LLF members, ultimately

generating a total of 49 options for bus, cycling, walking and highway interventions **[CD12-04, Section 2.3, pages 16-17]**.

4.5.4 The LLF reviewed options identified during earlier engagement and reconsidered some that had been previously discounted following the A1307 Haverhill to Cambridge Corridor Draft Concepts Report **[CD12-13]** and the Three Campuses Consultation (June – August 2016) (see section 4.4.1-4.4.3)). This was to ensure no viable alternatives had been overlooked before refining the strategies. This included revisiting rail-based solutions and major highway schemes, which were discounted based on deliverability, cost, strategic fit and ability to meet scheme objectives following detailed discussion.

4.5.5 The remaining feasible options were retained and packaged into eight multi-modal packages of options under three overarching transport strategies further assessment **[CD12-04]**. These scenarios were tested by WSP on behalf of GCP using the Cambridge Sub-Regional Model (CSRM2) to understand the performance of the option in the context of public transport mode share, bus patronage, Park & Ride site entries and bus travel time **[CD12-04, Section 3, pages 23-26]**.

4.5.6 Final Strategies for public consultation prior to selection of a preferred option were reported in the Preferred Options Report Addendum **[CD12-04]**. These strategies were recommended by the LLF to be taken to public consultation prior to selection of a preferred option. They comprised of:

- **Strategy 1** - Busway Via Sawston with A11 Park & Ride (an off-road strategy);
- **Strategy 2** – On-Highway Bus Lanes with A11 Park & Ride Plus Bus Only Link to the CBC; and
- **Strategy 3** – On Highway Bus Lanes with A11 Park & Ride.

4.5.7 As is discussed in Mr. Baker's proof **[CD27-01 APP-W2-01 and CD5-06]** the GCP Joint Assembly and Executive Board approved the LLF's revised strategies in November 2017 and agreed to undertake the Cambridge South East Transport Study Consultation in early 2018.

4.6 Cambridge South East Transport Study Consultation (February – April 2018)

4.6.1 Public consultation was held between 9 February and 9 April 2018 **[CD1-05.06]**. The consultation presented the three strategies identified above in Paragraph 4.5.6. These three strategies were packaged into shorter term Phase 1 and longer-term Phase 2 interventions.

- Phase 1: 17 shorter-term proposals for bus priority, junction improvements, walking and cycling measures and road safety enhancements along the A1307 corridor.
- Phase 2 (the Scheme): longer-term interventions of public transport improvements as set out within the three strategies.

4.6.2 Feedback from this consultation indicated that Strategy 1 was the most supported, with 29.3% of respondents stating it would encourage them to switch from car to public transport **[CD1-05.06, page 113]**. Strategy 1 proposed a new segregated Mass Rapid Transit route from the A11 via Sawston to the CBC, with a new Park & Ride site near the A11/A505 junction. Respondents cited its potential to encourage mode-shift away from personal vehicles, be future proofed and integrated with future transport links as reasons for support **[CD1-05.06, pages 127–128]**. 29.3% of respondents answered that Strategy 1 would encourage them to switch transport as compared to 8.7% for Strategy 2 and 10.4% for Strategy 3 **[CD1-05.06, page 113]**.

4.6.3 Based on the results, the LLF's recommended Strategy 1 – an off-road strategy – was adopted by the GCP Executive Board on 11 October 2018 as the preferred strategic approach for Phase 2, forming the basis for the Scheme **[CD5-08, pages 2-3]**.

4.7 Cambridge South East Transport Better Public Transport Consultation (September – November 2019)

4.7.1 Further to the adoption of Strategy 1 in October 2018, further public consultation was held between 9 September and 4 November 2019 **[CD1-05.08, page 10]**. This consultation presented Travel Hub options, proposed stops along the proposed busway and shortlisted route alignments, all of which were consistent with Strategy 1 adopted in 2018. Mr. Baker's proof discusses the consultation **[CD27-01 APP-W2-01 sections 4 and 6].** The outcome of the consultation informed the subsequent option development work in the Options Appraisal Report **[CD1-15.02]**, the further examination of route performance in the OBC 2020 **[CD1-19]**, and the environmental considerations addressed in the Stapleford Route Change Consultation **[CD1-05.13]**, all of which responded directly to the matters raised by consultees.

4.8 Options Appraisal Report (May 2020)

4.8.1 An Options Appraisal Report (OAR) **[CD1-15.02]** was produced in 2020. It revisited the three strategic interventions (Strategies 1 through 3 as in paragraph 4.5.6 of my proof) to determine the best scheme fit across the A1307 corridor. Although Strategy 1 was adopted in 2018 as the preferred strategic approach, the OAR revisited and confirmed this decision **[CD1-15.02, page 22]**. It also ensured compliance with DfT Transport Analysis Guidance (TAG) guidance **[CD13-12]** and provided a robust, auditable basis for the OBC. At this stage, a further review was considered to be necessary to validate earlier assumptions using updated evidence and to confirm that the chosen Strategy 1 (off-road alignment) remained the optimal approach to be progressed.

4.8.2 Using a more detailed and structured appraisal process **[CD1-15.02, page 9]**, the OAR applied a more granular route-by-route assessment, introduced updated technical analysis including quantitative modelling and environmental evaluation and incorporated stakeholder feedback from preceding consultation stages[1].

4.8.3 Stage 2 of the OAR assessment process resulted in a refined shortlist of five options, including the Brown, Blue, Black, Pink, and Purple route alignments. The route alignments are described in detail in the OAR **[CD1-15.02, pages 110-117 including Figure 56 page 111]**. All five were segregated off-road alignments, each paired with a potential Travel Hub site. On-road options had been sifted out in the Stage 2 INSET (Mott MacDonald's Investment Sifting and Evaluation Tool) assessment of the revised longlist as they scored lower on assessment criteria including transport user benefits, wider economic benefits, alignment with scheme objectives and policy compliance **[CD1-15.02, Section 6.3, pages 92-101 and Table 15 pages 93-98]**. They also offered limited segregation, which would decrease journey time reliability **[CD1-15.02, page 104]**.

4.8.4 The OAR confirmed that Strategy 1 (off-road alignment) remained the strongest performing option **[CD1-15.02, page 192]**. It checked that all reasonable alternatives had been considered **[CD1-15.02, Section 5, pages 48-86].** The OAR identified the Brown Route from Travel Hub Site B as the indicative preferred option for the Scheme **[CD1-15.02, page 192]** to take forward for full assessment in the OBC.

4.9 The Outline Business Case (May 2020) [CD1-19]

4.9.1 Building on the OAR **[CD1-15.02]**, the Outline Business Case (OBC) was developed by a further consultancy, Mott McDonald, on behalf of the Applicant and was published in May 2020. The OBC undertook a detailed and quantitative appraisal of the shortlisted five options assessed in the OAR, outlined in section 4.8 of my proof. These shortlisted options were all segregated off-road busway options.

4.9.2 Aligning with the HM Treasury Business Case guidance **[CD13-05]**, the purpose of the OBC is to identify the investment option which optimises Value for Money (VfM), prepares a scheme for procurement and puts in place the necessary funding and management arrangements for the successful delivery of the scheme.

[1] 2015 Early Engagement Consultation, 2016 Three Campuses Consultation, 2017 Local Liaison Forum workshops, 2018 Cambridge South East Transport Study Consultation, 2019 Better Public Transport Consultation

4.9.3 The OBC assessed the five shortlisted options using qualitative and quantitative assessment approaches: INSET multi-criteria assessment framework, Appraisal and consultation feedback **[CD1-19, Section 19, Page 162-174]**. It was concluded that the Brown option was the best performing in terms of both route alignment and Travel Hub site. The Brown route option was recommended to the GCP Executive Board as the preferred option to be progressed for planning and further development and TWAO submission **[CD1-19, Section 19.5, Page 171]** and see also Mr. Baker's Proof **[CD27-01 APP-W2-01, pages 22-24]**.

4.10 Stapleford Route Change Consultation (July – August 2022) [CD1-05.01]

4.10.1 In July-August 2022, GCP undertook a targeted public consultation on proposed changes to the Scheme alignment near Stapleford. The consultation was prompted by the approval of a retirement village, which required adjustments to the route and stop location to reduce land take and environmental impact while maintaining connectivity. Two revised alignment options were presented **[CD1-05.01, Figure 10-1, page 68]**, and the consultation period was extended following an initial pause to allow stakeholders and residents sufficient time to respond.

4.10.2 The consultation report summarised feedback on both options **[CD1-05.01]**, including the levels of support and key themes such as environmental considerations, accessibility and integration with local routes. Overall, respondents recognised the benefits of the revised alignment, particularly in terms of minimising impacts and improving deliverability. These outcomes informed subsequent design refinements and were incorporated into later stages of scheme development, including the Economic Dimension Addendum **[CD1-21]** and Strategic Dimension Refresh **[CD1-20]**.

4.11 Review of On-Road Off-Road Options Technical Note (2022) [CD1-25.07]

4.11.1 In 2022, following the cancellation of Cambridgeshire Autonomous Metro (CAM) and receipt of representations from local campaign groups, a review of on-road versus off-road options was undertaken **[CD1-25.07]**. This review was conducted in parallel with the Strategic Dimension Refresh **[CD1-20]** and aimed to revisit the earlier optioneering work to ensure continued alignment with growth objectives and stakeholder feedback **[CD1-25.07, Section 1, page 2]**.

4.11.2 The review undertook a multi-criteria assessment of the three Strategies identified in the outcome of the Options Appraisal Addendum **[strategies described in CD12-04, Section 5, pages 51-56 and CD1-25.07, page 3, Paragraph 2.1.2]**, aligning with the INSET, and in line with the DfT's EAST methodology used in the 2020 OAR **[CD1-15.02]**. The proxy for the Strategy 1 off-road option was the Brown Route.

4.11.3 The review assessment and the scoring principles were consistent with DfT's Transport Analysis Guidance (TAG) on the option development process and directly comparable to the earlier assessment **[CD12-04]**. The assessment ensured that strategic priorities – particularly economic growth – were appropriately considered. This was complemented by detailed transport modelling, cost estimation and environmental analysis, enabling the comparison between off-road and on-road strategies.

4.11.4 The review concluded that neither of the on-road options (Strategy 2: P&R Connection and Strategy 3: Hinton Way Connection) would provide a sufficiently attractive alternative to private car journeys to encourage mode shift and alleviate the future traffic demand along the A1307 for those travelling between Haverhill and Cambridge **[CD1-25.07, pages 15]**. Nor would they provide significantly improved public transport connectivity for Haverhill and Linton **[CD1-25.07, pages 15]**. Therefore, an on-road solution does not contribute to a long-lasting and effective intervention as would the preferred off-road option.

4.11.5 The review concluded that the off-road option (Strategy 1: Off-Road Busway) had the strongest alignment with the vision for Cambridgeshire, especially with the growth of the biomedical campus situated at the centre of the Scheme **[CD1-25.07, page 15]** and recommends progression of the off-road route in preference to the on-road alternatives based on the off-road route's strong alignment with, and ability to meet, the scheme's strategic objectives.

5. THE OUTLINE BUSINESS CASE UPDATE AND VFM OF THE SCHEME (MAY 2024)

5.1.1 In May 2024, the updated OBC was published to reflect the latest position of the Scheme. The OBC update comprised of a Strategic Dimension Refresh and a suite of addendums across the remaining four dimensions **[CD1-20, CD1-21, CD1-22, CD1-23, CD1-24]**.

5.1.2 The Strategic Dimension Refresh **[CD1-20]** provided a comprehensive update to revise and review the case for change while addendums to the Economic, Financial, Commercial and Management Dimensions were also produced **[CD1-21, CD1-22. CD1-23, CD1-24]** that did not involve fundamental revisions to the underlying cases but instead provided targeted updates to reflect refreshed transport modelling and appraisal results, updated scheme costs, adjustments to commercial and delivery arrangements as the Scheme advanced, and refinement of programme and risk information. These addendums ensured that all business case dimensions were current and aligned with the latest technical evidence while maintaining continuity with the previously approved OBC.

5.2 The Strategic Dimension Refresh (2024) [CD1-20]

5.2.1 The Strategic Dimension Refresh **[CD1-20]**, which followed closely the "Transport Business Case Guidance" (Dec 2022) **[CD13-05]** as demonstrated by Table 1-1 and Table 1-2 **[CD1-20, pages 7-8]**. reviewed and demonstrated the Scheme's alignment with policies and plans current in 2024 (and since 2020) including (but not limited to) the National Planning Policy Framework (NPPF) 2024, the Levelling Up the United Kingdom White Paper (2022), the Bus Back Better national bus strategy for England (2021) and the second Cycling and Walking Investment Strategy (CWIS2) (2022) and affirmed the Scheme is aligned with the region's updated economic and spatial priorities [**CD1-20 Section 1.4, pages 10-21]**.

5.2.2 The Strategic Dimension Refresh further integrated the findings of the Future Growth in Greater Cambridge Technical Note **[CD1-25.01]** which identified increased transport demand as a result of employment and housing growth within and outside Cambridge, particularly the expansion of the Cambridge Biomedical Campus (CBC) and which thereby reinforced the role of the Scheme in providing a sustainable transport link for people commuting further from Cambridge to work in the city **[CD1-20, Section 1.6, pages 61-69]**.

5.2.3 The Refresh also reflected the cancellation of the Cambridgeshire Autonomous Metro (CAM) programme in May 2021 in so far as the Scheme was previously regarded as one of several GCP projects that formed Phase 1 of the longer-term CAM programme and was now being developed as a standalone Scheme in its own right **[CD1-20, Section 1.1.1, page 6]**.

5.2.4 The Strategic Dimension Refresh restated the case for change **[CD1-20, Section 1.8, pages 76-77]** highlighting issues such as the limited public transport options and delays on the A1307 and how these constrain access to employment, educational and leisure opportunities for current and future residents as well as constraining business access to a larger workforce with relevant skill base limiting the economic growth ambition of Greater Cambridge **[CD1-20, pages 76-77]**

5.2.5 The Strategic Dimension Refresh revisited the Scheme's objectives to reflect the case for change and the role of the Scheme in supporting the region's growth strategy. The objectives are discussed in **[CD1-20, Section 1.9, page 78]**.

5.2.6 The Strategic Dimension refresh presented a logic map **[CD1-20, Figure 1-39, page 81]**, which outlines the relationship between the Scheme Objectives and associated opportunities and barriers, scheme inputs / outputs, outcomes and wider impacts. It set out the 'theory of change' showing how the scheme will deliver benefits and showed the "Golden Thread" the Scheme provides between the opportunity inherent in the 'Cambridge Phenomena' and the impacts and benefits to local communities and the local and national economies **[CD1-20, page 79]**.

5.2.7 The Strategic Dimension Refresh identified the strategic benefits of the Scheme, namely the alleviation of congestion on the A1307 corridor and the improvement of access to Cambridge city centre and the medical campuses, thus supporting growth. The Scheme will also improve links between key employment centres and housing development along the corridor, and in turn

increase the size of the labour market available for employers and employees **[CD1-20, Section 1.15, page 93]**.

5.2.8 The Strategic Dimension Refresh reviewed the outcome of the 2020 OBC that recommended the Brown option (off-road option) as the preferred option and reassessed the Brown option against alternatives including the Pink Route Variant, Shelford Rail Line and on-road and off road options and supported the conclusion reached by Mott MacDonald that the Brown option was the best performing option in terms of both route alignment and Travel Hub site **[CD1-20, Section 1.17.2, page 95]**.

5.2.9 Overall, the Strategic Dimension Refresh concluded that the Scheme could facilitate the future expansion of the CBC and other high-tech clusters of national and international importance through the provision of sustainable public transport connecting South East Cambridge and Greater Cambridge to Cambridge city, enabling future housing and employment growth in Greater Cambridge **[CD1-20, Section 1.17.3, pages 95-96]**.

5.3 The Economic Dimension Addendum [CD1-21] and the Value for Money assessment of the Scheme as at 2023

5.3.1 The Economic Dimension Addendum **[CD1-21]** provided an update Value for Money (VfM) assessment following several changes since the Scheme was appraised in 2020 as part of the OBC **[CD1-19]**.

5.3.2 The underlying appraisal was completed through updated F-Series CSRM2 strategic model **[CD12-07]** runs to inform the outcomes of the economic appraisal. Details on the modelling to support the appraisal conducted as part of the economic dimension can be found in Mr Craig Shipley's Proof of Evidence **[CD27-01 APP-W4-01, page 5]**.

5.3.3 Economic Appraisal of the Scheme was conducted utilising the DfT's TAG **[CD13-12]**. An update to the Transport User Benefit Assessment (TUBA) appraisal was undertaken. The appraisal returned £95.6m **[CD1-21, Section 1.4.3.1, page 9]** of transport benefits.

5.3.4 An assessment of Active Mode Impacts using the Active Modes Appraisal Toolkit (AMAT) was also included in the Economic Dimension appraisal **[CD1-21, pages 19-26]**. The Active Mode appraisal showed the Scheme provided £7.3m of active travel benefits through reducing congestion, improving physical health through increased uptake in walking and cycling and improving journey quality measures based on expected uplift in cycling and walking estimated from Propensity to Cycle Tool (PCT) **[CD1-21 Section 1.8.7, pages 25-26]**

5.3.5 The Economic Dimension Addendum presents a Present Value of Benefits (in 2010 base-year Prices as per TAG Unit A1.1) of £132,852,953 and a Present Value of Costs (in 2010 base-year Prices) of £86,790,678 which results in a Benefit to Cost Ratio of 1.53 classified as Medium VfM **[CD1-21, Table 1-21, page 27]**.

5.3.6 A COVID Sensitivity test was undertaken, with the results outlined under section 1.9.2 **[CD1-21, page 27]** to assess the impacts on highway and public transport assuming a 10% reduction in public transport demand (In line with TAG M4 "Forecasting and Uncertainty", Appendix B) **[CD13-09]**. Assumptions underpinning this test and demand adjustments are discussed in Mr Shipley's Proof of Evidence **[CD27-01 APP-W4-01]**. The results of this sensitivity test show a PVB of £110,947,000 **[CD1-21, Table 1-22, page 27]** and lead to a BCR of 1.28 (Low VfM) albeit this still provides a positive return on investment.

5.3.7 Section 7 of my Proof summarises the 2026 Appraisal Update **[CD21-20]** undertaken to reflect several TAG Databook appraisal parameters and base-year changes made by DfT.

5.4 The Financial Dimension Addendum [CD1-22]

5.4.1 Scheme costs were reviewed and updated by Faithful+Gould (now known as AtkinsRéalis) in 2022 as part of the Financial Dimension Addendum and presented in Q4 2022 prices **[CD1-25.09.01]**. The outturn cost to construct the Scheme has been estimated at £160,989,018 **[CD1-25.09.01 and**

CD1-22 Table 1-2, page 6]. At the time of application an incorrect version of the Scheme Cost Review **[CD1-25.09]** was submitted. The corrected Scheme Cost spreadsheet, with the correct total cost of £160,989,018 is at **[CD1.25.09.01].**

5.4.2 At the time of publishing the Financial Dimension Addendum in January 2025 and subsequent submission of the application in January 2025, methods of funding were being considered and discussed with Central Government. Subsequently, it has been confirmed that funding for the full cost of the Scheme has been secured, with further details provided in Mr Baker's evidence [**CD27-01 APP-W2-01]**.

5.4.3 Further detail on funding can be found in Mr Baker's evidence **[CD27-01 APP-W2-01]**.

5.5 The Commercial Dimension Addendum [CD1-23]

5.5.1 The Commercial Dimension Addendum identifies the procurement strategy and a number of well tested procurement models and contractual arrangements and management processes available to GCP to procure the Scheme.

5.6 The Management Dimension Addendum [CD1-24]

5.6.1 The Management Dimension Addendum provided relevant updates since the OBC 2020 Management Case was produced. These included updates to the governance framework, namely the reference to the Greater Cambridge City Deal Assurance Framework (2022) **[CD1-24, Section 1.3, pages 4-5 referencing the Greater Cambridge City Deal Assurance Framework 2022 [CD9-06]]** and updates on the timescales for approvals and delivery of the programme **[CD1-24, Section 1.5 and 1.6, pages 6-7]**.

5.6.2 An updated Benefits Realisation Plan (BRP) was presented showing how the identified benefits of the Scheme align with the scheme objectives, who the key beneficiaries would be, and the outputs required to realise benefits **[CD1-24, Section 1.11, pages 8-9]**. The BRP set out how impacts of improved connectivity, economic growth, journey time reliability, congestion reduction, sustainable travel, safety and air quality improvements will be monitored and what processes are in place to ensure realisation. These include defined benefit indicators linked to the updated objectives, a structured programme of baseline, one-year and three-year post-opening monitoring, and detailed data-collection requirements across travel demand, journey times, accidents, active travel, air quality, noise and emissions.

5.6.3 The Management Dimension Addendum further discussed Monitoring and Evaluation and the recommendation to follow the DfT's enhanced monitoring requirements for major schemes exceeding £50m costs **[CD1-24, Section 1.12 pages 13-16 referencing CD1-19 Financial Case Section 12, page 399-402]**.

5.6.4 Stakeholder engagement has been ongoing and meets statutory requirements **[Mr Baker PoE CD27-01 APP-W2-01, section 6.1.1].** Since the OBC 2020 Management Case was produced, targeted consultation was undertaken in Stapleford in 2022, and feedback from the consultation has informed the final scheme design presented in the TWAO **[CD1-24, Section 1.8, pages 7-8]**.

6. THE ON-ROAD OPTION TECHNICAL NOTE (ORTN) (AUG 2025) [CD12-12]

6.1.1 In order to validate the selection of the off-road solution over an on-road option, noting comments from interested parties, a detailed analysis of the On-Road Option (as specified in the "Optimised alternative to Cambridge South East Transport Study proposal", presented by Smarter Cambridge **[CD12-05]**), was undertaken in August 2025 **[CD12-12]**. The On-Road Option Technical Note assessed how the on-road option performed in comparison to the Scheme.

6.1.2 The on-road option was assessed using the same modelling and appraisal parameters that were used for the off-road option, as reported in the Economic Dimension Addendum **[CD1-21]**. This approach was adopted to ensure that the assessment of the on-road option was directly comparable to the off-road option. This included using the CSRM2 demand and assignment models. Further Details can be found in Mr Shipley's Proof **[CD27-01 APP-W4-01]**.

6.1.3 The ORTN further reviewed updated operational evidence, including observed journey time variability on the A1307, identification of locations without bus priority where reliability gaps persist and an assessment of cyclist-vehicle conflict risk arising from discontinuous bus lanes – noting in particular that the A1307 exhibits a disproportionately high rate of cycling-related injury collisions, and that the on-road concept would require cyclists to transition repeatedly between general traffic and bus priority sections **[CD12-12, pages 13-17]**.

6.1.4 The analysis included:

- Feasibility design of the proposed on-road alternative
- Transport modelling using CSRM2
- User Benefits Analysis using TUBA
- Review of bus journey time reliability using the Bus Open Data Service (BODS)
- High and low value cost estimates for the on-road scheme
- Environmental impact assessment
- Review of Land Requirements
- Planning Constraints

6.1.5 The ORTN provided a direct comparison of the on-road and off-road options **[CD12-12]**. The assessment followed a TAG-compliant appraisal framework and modelling assumptions and provided a directly comparable and methodologically consistent assessment. The use of the established CSRM2 model, TUBA appraisal (using TUBA appraisal using V1.9.17.2, with Economic Parameter file 1.9.18, following TAG Unit A1-1) and BODS/AVL-based reliability analysis reflects a proportionate and robust approach.

6.1.6 The ORTN's multi-disciplinary scope replicated the Economic Appraisal Addendum assessment **[CD1-21]** undertaken for the Scheme **[CD12-12]**:

- Journey time variability was examined using detailed Automatic Vehicle Location (AVL) data from the Department for Transport's BODS which identified significant reliability issues in sections of the A1307 without bus priority, particularly between Babraham High Street, Babraham Research Park and Wandlebury **[CD12-12, Section 3.4, page 109]**.
- Safety and active travel impacts were assessed through collision analysis, with the ORTN noting that the A1307 has a high share of cycling injury collisions and that the discontinuity of proposed bus lanes would exacerbate cyclist safety issues compared with the segregated infrastructure in the off-road option **[CD12-12, Section 3.7, pages 110-111]**.

6.1.7 The findings of the ORTN **[CD12-12, Section 3.12, Table 3-18, pages 21-24]** are that the Scheme performs better than the on-road alternative across several key indicators including:

- Greater reduction in forecast total annual vehicle mileage, indicating stronger mode shift from car to public transport particularly by 2041
- Approximately 80% higher bus patronage
- Greater reductions in peak period bus journey times
- Greater reductions in peak period general traffic journey times on the A1307
- Likely significantly better journey time reliability **[CD12-12, Appendix F, Section 3.3, pages 122-134]**

6.1.8 The economic assessment demonstrated that the interventions would generate less than 20% of the transport benefits of the Scheme (c. £25m compared to £132m of benefits generated by the busway). The BCR of the on-road scheme was assessed as 0.43 to 0.48, compared to the Scheme's BCR of 1.53 **[CD12-12, Table 3-17, pg21].**

6.1.9 Mr. Parson's proof **[CD27-01 APP-W7-01, Section 4.2]** discusses the comparative outcome on environmental grounds of the on-road alternative with the Scheme.

6.1.10 Mr. Baker's proof **[CD27-01 APP-W2-01, Section 4.1]** discusses the land ownership and planning conflicts associated with the on-road alternative.

6.1.11 Mr. Connelly proof **[CD27-01 APP-W9-01]** discusses deliverability issues with the on-road alternative.

6.1.12 Ms McDade's Proof **[CD27-01 APP-W10-01]** discusses the planning constraints relating to the on-road alignment.

7. 2026 ECONOMIC APPRAISAL UPDATE

7.1.1 Following the preparation of the Economic Dimension Addendum **[CD1-21]**, the Applicant undertook a further update of the appraisal in 2026, documented in the 2026 Economic Appraisal Refresh **[CD21-20]**.

7.1.2 The appraisal update was undertaken to take account of several TAG Databook appraisal parameters and base-year changes that had been made by DfT, as well as updating the appraisal of monetised environmental impacts. In this way the Inquiry could reflect on the most current scheme appraisal.

7.1.3 The update covers the following:

- Rebasing the costs and benefits from 2010 base year to 2023 base year as per DfT requirements.
- Updating the scheme opening year to 2030, this change has been reflected in the user benefits assessment and in the scheme costs.
- Updates to the Scheme Present Value Costs using updated inflation indices, namely replacing TPI All-In Index with TPI Roads Index from the Building Cost Information Service (BCIS), downloaded March 2026.
- Updates to the User Benefits assessment and Transport Economic Efficiency (TEE) table using Transport User Benefits Appraisal (TUBA) version [v1.10.01, June 2025] based on TAG Databook v2.02, December 2025 [**CD13-31**].
- Sensitivity testing to show the differences between the core scenario and a low growth and COVID scenarios, using TUBA v1.10.01.
- Rebasing the accident appraisal to 2023 prices, conducted using the Marginal External Cost Method.
- Appraisal of Carbon, Noise and Air Quality has been undertaken using the DfT's Emission Factor Toolkit (EFT) v14 **[CD18-22]**.
- Updates to the AMAT assessment using version 2.03 [November 2025]

7.1.4 The updates described are appraisal-based updates reflecting up to date appraisal parameters and price bases. The underlying strategic modelling using CSRM2 that informs the economic modelling has been retained for the purposes of this assessment, this maintains consistency with the previous work undertaken especially since the results of the model are still considered valid and its outputs relevant.

7.1.5 In addition to compliance-based appraisal updates an assessment of Wider Economic Benefits using the Wider Impacts in Transport Appraisal (WITA) software [v2.5, September 2025] **[CD13-24]** was also undertaken. As the Scheme will deliver improved journey times and reliability across various modes, it is expected to increase the Access to Economic Mass (ATEM) for the area, meaning that there is greater connectivity for businesses and individuals to reach jobs and services. This improved access raises productivity, reflected in the agglomeration impacts of the Scheme which amount to £43m **[CD21-20, Section 3, Table 3-2, pages 14-16]**.

7.1.6 The results of the updated appraisal are presented in Table 5.1 of the 2026 Economic Appraisal Refresh **[CD21-20, Section 5, page 19]**

7.1.7 The results of the updated appraisal confirm the Scheme delivers journey time, decongestion and productivity benefits to all mode users in the study area and provides Medium Value for Money on the investment **[CD21-20, Section 2.3, Table 2.4, pages 6-8 and Section 5, Table 5.1, page 19]**.

7.1.8 To provide confidence in the results of the core scenario updates, sensitivity testing was undertaken to assess how the Scheme would perform under lower growth scenarios than modelled in the core. The low growth scenario tested for lower levels of exogenous growth than anticipated in Cambridge, namely growth constrained to the DfT's National Trip End Model Core scenario (v8.0) while the post-COVID test assessed lower endogenous traffic demand than assumed in the core. The results of these sensitivity tests are presented in Table 4.1 of the 2026 Economic Appraisal Refresh **[CD21-20, Section 4, pages 17-18]**

7.1.9 The results of the sensitivity tests provide reassurance that that the Scheme delivers medium Value for Money even under scenarios where development and traffic growth are constrained as under each of the sensitivity scenarios the adjusted BCR is above 1.5 **[CD21-20, Section 4, Table 4.1, pages 17-18]**.

7.1.10 The assessment [**CD21-20, Section 6, Table 6.1, pages 20-21]** further confirms that the Scheme meets its objectives as set out in the Strategic Dimension Addendum **[CD1-20, page 78]**.

8. OBJECTIONS AND REPRESENTATIONS MADE RELEVANT TO MY EVIDENCE

8.1 Introduction

8.1.1 In this section I present my responses to third parties relevant to my evidence and expert area. I have set out the main issues raised and have followed this with my response.

8.1.2 Objections relevant to my Proof of Evidence cover three broad themes:

1. The objectives of the Scheme have not been met by the Scheme
2. Alternative options were not sufficiently considered
3. The Scheme does not represent Value for Money

8.1.3 Objections relevant to my proof have been made by:

- Stephen Partridge-Hicks, Kelly Hathaway, Cambridge Past Present and Future, Better Ways for Busways, Magog Trust and Hobson's Conduit Trust **[CD2-OBJ-440 and CD3-23]** (known as the BW4B Consortium)
- Paul Bristow **[CD2-OBJ-454 and CD3-19]**
- Railfuture East Anglia **[CD2-OBJ-256 and CD3-08]** and the Fen Line Users Association **[CD2-OBJ-325 and CD3-11]**
- Dr Turnbull-Jones **[CD2-OBJ-09 and CD3-04**]
- B Reeve **[CD2-OBJ-04 and CD3-14]**
- B Kingsley **[CD2-OBJ-64 and CD3-03]**
- Geoff Gardener **[CD2-OBJ-02 and CD3-13]**
- West Suffolk Council **[CD2-REP-07 and CD3-12]**

8.2 Objections by the BW4B Consortium [CD2-OBJ-440 and CD3-23]

Main Issues Raised

8.2.1 The BW4B Consortium and associated campaign claim the Scheme does not meet its objectives **[CD3-23.1, page 5]** and that an alternative option of an online busway along the A1307 with a new spur road performs better than the Scheme **[CD3-23.1, page 7]**.

My Response

8.2.2 The Scheme has been developed through a comprehensive and rigorous iterative optioneering process as described in my proof [Section 4] and summarised in the SoC **[CD3-01, pages 31-45].** The appraisal of the Scheme (and alternatives during the optioneering stages) was undertaken in accordance with Treasury Green Book Guidance and in compliance with DfT's TAG **[CD1-19, pages 17-18 and CD1-21, page 6].**

8.2.3 It is noted that BW4B have not provided a quantified or detailed cost and benefit analysis related to their on-road option's feasibility or value for money. Nonetheless, as discussed in Section 6 of my proof the Applicant undertook to develop descriptions supported by BW4B in **[CD12-05]** to an outline level in order to undertake a detailed comparative quantitative appraisal with the Scheme in the On-Road Technical Note **[CD12-12]**. This appraisal has found that the on-road option offers significantly lower economic benefits in terms of its ability to improve journey times and encourage mode shift from car to bus. The On-Road Technical Note **[CD12-12, Section 3.12, Table 3-17, pages 21-24]** shows an on-road option could cost between £52.5 and £58.8m in PVC terms while generating PVBs of £25.2m thereby offering a poor return on investment (BCRs between 0.48 and 0.43), whereas under that assessment the Scheme was shown to cost £86.8m in PVC terms but generate PVB of £132.9m thus offering Medium Value for Money with a BCR 1.53. See also the Applicant's Statement of Case **[CD3-01, pages 151-153]** for our response to BW4B's objection.

8.2.4 Mr. Connelly's proof of evidence **[CD27-01 APP-W9-01]** will speak to the engineering feasibility completed as part of this report, Mr. Parsons proof **[CD27-01 APP-W7-01]** will speak to the environmental assessment and Ms McDade's proof of evidence **[CD27-01 APP-W10-01]** will speak on the planning matters.

8.3 Objections made by Paul Bristow [CD2-OBJ-454 and CD3-19]

8.3.1 Mr Bristow contends that, with costs of £160m, the Scheme provides poor value for money.

My Response

8.3.2 As has been evidenced in my submission **[Section 7]** and in the 2026 Economic Appraisal Refresh **[CD21-20, Section 5, Table 5.1, page 19]** the Scheme offers Medium Value for Money to the public purse. While the PVC is estimated at £166m, the PVB associated with the Scheme amounts to £266m which thereby returns £1.6 for every £1 spent. And while the costing exercise was indeed undertaken in 2022, suitable inflation indexation factors have been built into the PVC to allay the risk that the costs are underreported, as discussed in the 2026 Economic Appraisal Refresh **[CD21-20, Section 2.2, pages 4-6]**.

8.4 Objections made by Railfuture East Anglia and the Fen Line Users Association [CD2-OBJ-256 and CD3-08 and CD2-OBJ-325 and CD3-11]

Main Issues Raised

8.4.1 Railfuture East Anglia objects to the Scheme on the grounds that it may undermine existing public transport services, conflict with GCP's sustainable transport policies, and deviates from earlier proposals.

8.4.2 Both Railfuture and the Fen Line Users Association contend that the reopening of the railway line from Cambridge to Haverhill could act as a proposed "long-term solution" for the South East Cambridge Corridor.

My Response

8.4.3 With regards to the Scheme undermining public transport objectives, I reiterate that the Scheme encourages mode shift from car to bus through the provision of new bus services between Haverhill and Cambridge city centre as well as the Park and Ride which provides for drivers to leave their cars and travel by public transport. Indeed, the Travel Hub caters for all modes of transport and

not simply private cars: active modes including bicycles and motorcycles, public transport such as coaches and buses **[CD3-01, page 11]**.

8.4.4 In relation to Railfuture's concern that bus services might terminate prematurely at the CBC, Figure 2-1 of the Transport Assessment **[CD1-18.01, Section 2.58-2.64, pages 18-20]** discuss the bus service proposition and shows rapid transit services from Haverhill and Saffron Walden to Cambridge city centre have the potential to utilise the Scheme. The Scheme does not preclude service continuation beyond the CBC and services using the Scheme infrastructure are likely to experience improved journey time benefits and more convenient access to the wider CBC campus than a route via the A1307. Services are able to utilise the existing segregated Trumpington to Cambridge City Centre Guideway to get to Cambridge City Centre.

8.4.5 In relation to the alternative proposal of the potential restoration of the former Haverhill to Cambridge railway line, as set out in Section 4.4 of my evidence, this was explored during the initial stages of the CSET2 project and sifted out at the longlisting stage.

8.4.6 A detailed assessment of the proposals to reinstate railway services or run BRT services on the Haverhill to Cambridge disused rail corridor alignment was published in the A1307 Haverhill to Cambridge Corridor Draft Concepts Report and it's Appendix the Cambridge-Haverhill Corridor Study Draft Rail Viability Technical Note **[CD12-13 and CD12-13, Appendix B, pages 94-95]**, both considering a single- and double-track alignment. This work formed part of the long-list option development and provided an evidence base for determining which interventions were realistic and deliverable within the remit of the Scheme.

8.4.7 A railway-based option was ruled out on the basis that it was unaffordable; (with cost estimates for the railway line at around £800m **[CD3-01, page 140]** leading to a poor BCR with a return on investment of less than 1 and thus unachievable within the scope of the City Deal funding envelope; and not deliverable within the required timeframes at the time **[CD12-13, Paragraphs 4.3.6 and 4.3.7, page 22]**. These considerations led to its early discounting as a reasonable alternative.

8.4.8 A BRT based option was ruled out due to a low BCR. **[CD12-13, Paragraph 4.3.8, pages 22-23]**

8.4.9 It is understood that a case for the railway-based option was put forward to the Restoring Your Railway Ideas fund in 2021, and that the case was unsuccessful **[CD12-08, pages 16-17]**. As noted in the SoC **[CD3-01, pages 122, 140-141]**, the railway option is considered unaffordable, and the option is not being pursued by GCP nor the railway industry.

As set out in the CSET Phase 2 Shelford Railway Alignment, Design Development and Feasibility Assessment **[CD1-05.16]** a busway alignment using the former Shelford Rail Line rail alignment was also considered during the option development stage, however, limited segregation, need for land acquisition, higher journey times and higher costs than the preferred option meant this option was also discounted **[CD1-05.16, Section 7, page 42]**.

8.5 Objection raised by Dr Turnbull-Jones [CD2-OBJ-09 and CD3-04]

Main Issues Raised

8.5.1 The main issues raised by Dr Turnbull-Jones in her SoC **[CD3-04]** relate to her assertion that the Applicant has not established the Need for Intervention. Dr Turnbull-Jones contends that existing transport conditions on the A1307/A1301 corridor are adequate and that a major public transport scheme is unjustified. She argues that current bus frequencies at Addenbrooke's Hospital, existing journey times on the A1307, current modal split at the CBC, improvements already delivered through Phase 1 and the potential role of rail and active travel collectively indicate that further intervention is unnecessary. She also suggests that employment and housing growth beyond the adopted Local Plan period is uncertain and therefore should not drive long-term transport investment.

8.5.2 Dr Turnbull-Jones further argues that on-road alternatives have not been properly assessed and that enhanced bus priority measures along the A1307 could meet the Scheme's objectives more effectively and with fewer environmental impacts than the off-road guided busway. She states that such options would be less costly, would avoid land acquisition and should have been given greater weight in the appraisal process.

My Response

8.5.3 The Applicant's SoC explains the clear and comprehensive need for intervention **[CD3-01, pages 22-27]**, identifying forecast congestion, limited modal choice, poor peak-period journey time reliability and the absence of high-quality public transport in the south-east corridor. These existing and future pressures are not resolved by current bus services or by measures delivered through Phase 1.

8.5.4 As discussed in Section 5.3 of my Proof of Evidence, the Strategic Dimension Refresh of the OBC reinforces the need for intervention by demonstrating the scale of planned and committed growth **[CD1-20, Section 1.6, pages 61-69]** at the CBC **[**Babraham Research Campus and Granta Park. The Strategic Dimension Refresh **[CD1-20, Section 1.6.1, pages 61-63]** confirms that this growth will significantly increase demand and that a segregated high-quality public transport corridor is required to ensure reliable access and avoid worsening congestion and car dependency. The Transport Assessment shows that traffic experiences significant peak-period delays – especially between Hinton Way and the CBC **[CD1-18, Paragraph 5.65, pages 56-58]** – and provision of BRT services with their segregation from general traffic is recognised by the Bus Back Better strategy as improving bus journey times and reliability and thus encouraging mode shift from car to bus **[CD1-20, Section 1.4.1.6, pages 13-14]**.

8.5.5 The assertion that future growth is too uncertain is inconsistent with the evidence in the Strategic Dimension Refresh **[CD1-20]** and Future Growth Technical Note **[CD1-25.01]**, which identify substantial committed and expected expansion at the CBC and wider life-sciences cluster. These growth pressures have been recognised throughout the business case process and materially strengthen the need for intervention.

8.5.6 Rail and active travel options were considered during earlier optioneering stages and reported in the Options Appraisal and SoC **[CD1-15.02, CD3-01]**. They do not serve the A1307 corridor or provide the required direct access to the CBC and therefore function as complementary rather than alternative solutions.

8.5.7 Finally, on-road alternatives have been thoroughly assessed, as documented in the Options Appraisal Report (2020) **[CD1-15.02]**, the 2022 Review of On-Road/Off-Road Options **[CD1-25.07]** and the 2025 On-Road Technical Note **[CD1-25.11]**. These assessments, summarised in Sections 4 and 6 of this PoE, consistently found that on-road options deliver significantly lower benefits, poorer reliability, greater safety risks and substantially weaker value for money than the Scheme.

8.5.8 Accordingly, the issues raised by Dr Turnbull-Jones do not alter the conclusions already set out in the SoC and this PoE: the need for intervention is clear, well evidenced and fully aligned with the transport, economic and policy context for the south-east Cambridge corridor.

8.6 Objection made by B Reeve [CD2-OBJ-04 and CD3-14]

Main Issues Raised

8.6.1 The issues raised by Mr Reeve are that the Scheme is primarily the Park and Ride Facility rather than a Bus Rapid Transit scheme and it will not improve the traffic issues to the south of Cambridge outside of peak hours and in fact encourage car use to P&R sites. He advances the contention that the alternative A1307 on-road option is a better performing option.

My Response

8.6.2 The Scheme will form part of the South East Cambridge region's sustainable transport network being designed to accommodate substantial growth in jobs at the CBC and within Cambridge City

and the attendant demand for trips along the A1307 corridor. The Scheme is designed to reduce the volume of daily private car trips into Cambridge by providing alternative means of transport. As referred to in the Applicant's SoC **[CD3-01, pages 120-126]** and affirmed by the latest 2026 appraisal **[CD21-20, Section 2.3, pages 6-8],** transport modelling undertaken by the Applicant has demonstrated that the Scheme will alleviate traffic congestion and delay issues across the road network, particularly to the south of Cambridge, and across time periods, with interpeak benefits making up 22% of overall time saving benefits over the 60-year appraisal period. Table 2 of Mr Shipley's proof of evidence **[CD27-01 APP-W4-01, Section 2.8]** shows that the Scheme leads to increased bus patronage and a reduction in vehicle kilometres and thereby decongestion.

8.6.3 In relation to the online A1307 option being a better option, the Applicant's detailed appraisal of the on-road alternative produced by SCT and adopted by BW4B **[CD12-12]** in direct comparison to the Scheme shows the on-road option does not match the level of benefits offered by the Scheme and offers significantly poorer value for money. The proposed on-road alternative was estimated to cost in the region of £97m- £109m (£53m - £59m in 2010 Present Values) **[CD12-12, pages 17-18]**, with journey time and active travel benefits estimated at £25m **[CD12-12, page 19]** resulting in an initial BCR range of 0.43 to 0.48 **[CD12-12, page 19]**. This compared to an initial BCR of 1.53 for the Scheme **[CD12-12, page 21]**. This assessment reinforces the previous option selection decisions in 2017, 2020 and 2022.

8.6.4 The Scheme performs considerably better than the alternative option on key performance indicators including: a greater reduction in total vehicle mileage which implies greater mode shift from car to buses; improved bus journey times; bus patronage and bus journey reliability. It also performs marginally better than the alternative option in absolute terms on journey times for general traffic and on the reduction in 2041 daily traffic flows along the A1307 **[CD12-12, Table 3-18, page 23]**.

8.7 Objection made by B Kingsley [CD2-OBJ-64 and CD3-03]

Main issues Raised

8.7.1 Mr Kingsley's objection and SoC raise the points of preference for the on road alternative option from the perspective of greenfield alignment and encouragement of mode shift.

My Response

8.7.2 Section 6 of my evidence, Section 7.1.33 of the Applicant's SoC **[CD3-01, page 42]** and the ORTN **[CD12-12, Tables 3-17, and 3-18 and Section 7, pages 21-24, 38]** set out the findings of the Applicant's comparative assessment between the Scheme and the on-road alternative and clearly demonstrate that the Scheme outperforms the on-road alternative option when it comes to bus patronage (mode shift); journey times; safety and economic and value for money criteria.

8.7.3 The Scheme's dedicated alignment allows it to deliver significantly better bus journey time reliability than the on-road alternative option.

8.7.4 The Scheme improves bus travel times as compared to the on-road alternative option. Even with future demand the Scheme will see a reduction in travel times for both vehicle and bus users whereas journey times with the on-road scheme will see marginal journey time increases as the density of traffic on the network increases up to 2041.

8.7.5 Mr. Shipley's proof **[CD27-01 APP-W4-01, Sections 2.9.19 and 2.9.20]** discusses how the modelling evidence shows the Scheme performing better than the on-road alternative option.

8.7.6 Ms. McDade's proof **[CD27-01 APP-W10-01]** discusses how the alignment of the alternative on-road option conflicts with land allocations especially along the section between DMAW and the A1307 and would also conflict with the emerging Phases 3 and 4 of the CBC Masterplan.

8.8 Objection made by Geoff Gardener [CD2-OBJ-02 and CD3-13]

Main issues Raised

8.8.1 Mr. Gardner suggests that the cost benefit of the on-road alternative has not been completed, he refers to an option of widening of the A1307 at a cost of £20m. Mr. Gardner also claims there is an exaggeration of the health benefits and passenger numbers assumed from Shelford, Stapleford and Sawston.

My Response

8.8.2 I do not recognise, nor has the Applicant been provided with details of an A1307 widening option that has been costed at £20m.

8.8.3 I do not recognise the claim that the Applicant's assessment has exaggerated health benefits or passenger numbers. Modelling of the Highways and Public Transport impacts has been undertaken in accordance with guidance as discussed in Mr Shipley's proof **[CD27-01 APP-W4-01, Section 2]**.

8.8.4 The Applicant has conducted a detailed, DfT TAG compliant comparison of the Scheme with an on-road alternative option suggested by the BW4B Consortium, the results of which are discussed throughout this proof, and which clearly demonstrates the Scheme outperforming an on-road alternative across key performance indicators.

8.9 Representation made by West Suffolk Council [CD2-REP-07 and CD3-12]

Main Issues Raised

8.9.1 The issue raised relevant to my proof is the need to future proof the Scheme through extending the public transport route towards Haverhill.

My Response

8.9.2 The option to deliver a busway from Cambridge to Haverhill was discounted at early optioneering stages **[CD12-13, Paragraph 4.3.8, pages 22-23],** however, Figure 2-1 of the Transport Assessment **[CD1-18.01, page 19, and discussed in pages 18-20]** discusses the bus service proposition and shows rapid transit services from Haverhill and Saffron Walden to Cambridge city centre have the potential to utilise the Scheme. Scheme services would also be able to utilise the existing segregated Trumpington to Cambridge City Centre Guideway to get to Cambridge City Centre.

8.9.3 The Applicant will continue to monitor the demand and appetite for the extension of Bus Rapid Transit corridors towards Haverhill, and therefore the option of building the extension proposed may be subject to review at a later stage, subsequent to the delivery of the Scheme under the Order.

9. CONCLUSIONS

9.1 Matter 1

9.1.1 In relation to Matter 1, I reflect how the strategic case **[CD1-19]** for the Scheme and the Strategic Case Refresh **[CD1-20]** establish the need for sustainable public transport capacity especially from the South East of Cambridge to Cambridge and its employment, education and leisure facilities and how without investment in sustainable public transport, growth in Cambridgeshire would be constrained, congestion would worsen and net-zero and air quality targets would not be met.

9.1.2 I summarise how the option development and selection process was undertaken to address the need for the Scheme and that the preferred option (the Scheme) was selected as it best met the scheme objectives **[CD1-20, page 78]**.

9.2 Matter 3

9.2.1 In relation to Matter 3, I demonstrate how the option development and selection process followed a rigorous assessment protocol to test route, P&R location and mode options to arrive at a preferred option that meets the objectives for intervention and delivers value for money to the public.

9.2.2 I explain how options that were discounted were done so on the basis of their performance against objectives and against affordability and deliverability requirements.

9.2.3 I demonstrate that, having taken account of consultation and objections, the Applicant reassessed the performance of the Scheme against an on-road alternative proposed by BW4B and that this alternative performed poorly against the Scheme in relation to economic benefits.

9.3 Matter 4c

9.3.1 In relation to Matter 4c, in demonstrating the benefits the Scheme delivers and in showing how it meets its objectives and provides Value for Money I show that the Scheme provides safety and health benefits to cyclists and walkers through the provision of active travel infrastructure.

10. STATEMENT OF TRUTH

10.1.1 The evidence which I have prepared and provided in this Proof of Evidence is true and is given in accordance with the guidance of my professional institution. I confirm that the opinions expressed are my true and professional opinions.

LIST OF APPENDICES

APPENDIX 1 – SCHEME DEVELOPMENT TIMELINE