

The Cambourne to Cambridge Order TWA/24/APP/03

Public Inquiry Opening Tuesday, 16th September 2025

Transport And Works Act 1992

Transport And Works (Applications And Objections Procedure)

(England And Wales) Rules 2006

Rebuttal Evidence

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9 September 2025

For objector: OBJ-251

(Cambridge Past, Present and Future, and Coton Parish Council)

Glossary

Abbreviations

- **BCR:** Benefit-Cost Ratio of cumulative social benefits to costs over the appraisal period (60 years)
- **CtoC and C2C:** [Cambourne to Cambridge](#)
- **CPPF Alternative:** Scheme proposed by OBJ-251, described in my PoE [**CD26-10-W3-1 Appendix A**] and reviewed by Mr Johnstone in his PoE [**CD26-10-W2-1 Section 5**]. An illustrative layout is appended to Mr Johnston's proof [**CD26-10-W2-1 Appendix F**].
- **ECA:** Outline Business Case Economic Case Addendum [**CD1-21.02**]
- **EWR:** [East West Rail](#)
- **LVU:** Land Value Uplift
- **PoE:** Proof of Evidence
- **TAG:** Department for Transport's [Transport Appraisal Guidance](#)
- **VfM:** Value for Money

1 Rebuttal evidence: CD26-01-APP-W6-1

- 1.1 The rebuttal evidence in this section pertains to Chris Whitehouse’s Proof of Evidence (PoE) [CD26-01-APP-W6-1] submitted by the Applicant and, in particular, his approach to the ECA [CD1-21.02], in two respects:
- 1.1.1 Mr Whitehouse repeatedly asserts that the Applicant’s proposed scheme will deliver “Medium Value for Money” without proper acknowledgment of the fact that the Adjusted BCR is 0.5, equating to Poor Value for Money [CD26-01-APP-W6-1, paragraphs 2.3.19, 2.5.9, 2.5.10, 2.5.19, 2.5.20, 2.6.5, 2.6.6, 3.2.32, 3.2.33, 4.3.4, 4.3.9, 4.3.11, 4.3.13, 4.4.2, 4.4.6, 4.4.11, 4.5.2, 4.5.4, 4.7.2, 4.7.4, 4.8.2, 4.8.4, 4.9.2, 4.9.4, 4.10.2, 4.10.3, 5.1.1]. (Some of these references are in the context of sensitivity tests.)
- 1.1.2 Mr Whitehouse fails to address deficiencies in the ECA that undermine the Applicant’s claim that LVU benefits raise the VfM category from Poor to Medium or High. Indeed, Mr Whitehouse does not suggest in his PoE that he has himself considered the accuracy and reasoning set out in the ECA.
- 1.2 The scheme is only expected to deliver Medium Value for Money when indicative monetised benefits are included. In §4.3.4, Mr Whitehouse asserts, “*the implied Value for Money assessment is Medium Value for Money, and potentially High Value for Money*”. Only later in that paragraph (and nowhere else in his PoE) Mr Whitehouse acknowledges that the provisional VfM category is Poor, based on the Adjusted BCR of 0.5. However, he then asserts, “*this metric captures the Scheme transport benefits only.*” This is incorrect in both a relatively trivial and more fundamental way.
- 1.2.1 In accordance with the DfT VfM guidance [CD8-32 §5.3.3], the initial VfM category is based on the Adjusted BCR, which includes Wider Economic Impacts, set out in ECA Table 4-11 [CD1-21.02], which go beyond transport benefits. Since this doesn’t change the BCR significantly, this may be regarded as a trivial oversight.
- 1.2.2 However, there is a strong body of evidence that shows that quantified transport benefits capture other benefits, such as Land Value Uplift. It is for this reason that the standard TAG approach does not include LVU as a distinct component of the monetised impacts [CD8-32 Table 4.2]. Without needing to dive deeply into the theory, this relationship is evident from the fact that houses in town centres and close to railway stations command a significant price premium over similar houses in less well-connected locations. It is also why house prices increase above

the market trend when a new railway, metro or tram station opens nearby. In this case, the degree of uplift is related to the size of the reduction in journey times and/or increase in journey time reliability to a range of destinations.

- 1.2.3 In other words, the benefits of improved transport are mirrored by increases in land values (house prices), and therefore it is incorrect to say that the BCR metric for a transport scheme captures only transport benefits.
- 1.3 The DfT Supplementary Guidance on Categories **[CD8-40]** recommends at §2.2.4, *“The rationale and uncertainties in assigning a VfM category should be communicated clearly to decision-makers in the Value for Money Statement.”* Mr Whitehouses’s assertion that the VfM category is Medium without communicating the rational and uncertainties in the assignment of that category is, in my view, misleading.
- 1.4 Table 4-21 of the ECA **[CD1-21.02]** indicates that 74% of the calculated LVU benefits for the Local Plan allocations for Cambourne West and Bourn Airfield would be needed to be realised for the VfM category to rise from Poor to Medium. In my own Proof of Evidence **[CD26-10-W3-1 §4.3.3 and §4.4.8.13]**, I provide multiple reasons why the inputs and assumptions made in the Land Value Uplift analysis are uncertain, questionable or incorrect. In my professional opinion, very little weight can be given to the LVU analysis, and therefore there is a very low probability that it raises the VfM category at all, let alone to Medium.
- 1.5 Methodologically, the reliance on LVU benefits to deliver most of the scheme benefits brings into question whether the core analysis is valid, since it, by the Applicant’s choice, omits all “dependent” housing at Cambourne West and Bourn Airfield from the Do Minimum and Do Something scenarios **[CD1-21.02 §2.3.1 and 3.2.4]**. This choice was necessary to avoid double-counting benefits, a point I explain at **§1.2.2** above.
- 1.6 This means that the Public Transport Demand Forecast in the ECA of 10,300 bus trips over a 12-hour period **[CD1-21.02 §4.3.3]** is based on modelling that does not include the 3,850 “dependent” homes at Cambourne West and Bourn Airfield. In my own PoE, I question how realistic this figure is **[CD26-10-W3-1 §4.3.3]**. But I will go further and show that it is extremely implausible.
- 1.7 The number of dwellings and population in the electoral wards of Cambourne, Caldecote and Hardwick (the latter two extend far from the proposed busway) are given in Table 1 below. Adding 1,500 homes at Cambourne West (assuming none were occupied in 2024) and 500 for Bourn Airfield, and assuming 2.7 occupiers per new dwelling, gives an upper limit on the number of people living in the catchment area of the busway of approximately 25,000.

Table 1: Dwellings and population in the Cambourne busway catchment¹

Area	Dwellings (2024)	Population (2021)	Persons/dwelling
Cambourne ward	4,990	12,367	2.5
Caldecote ward	1,340	3,594	2.7
Hardwick ward	1,250	3,389	2.7
Cambourne West	1,500	4,050	Assumed 2.7
Bourn Airfield	500	1,350	Assumed 2.7
Total	9,580	24,750	

- 1.8 10,300 bus trips over a 12-hour period (see §1.6 above) equates to more than 5,150 return trips (“more than” because some will start or end outside of the 12-hour period).
- 1.9 If the proportion of outbound commuting trips originating from Cambridge can be regarded as negligible, the Applicant appears to have based its economic appraisal on more than one fifth of the catchment population – adults and children – travelling on a busway service on any day of the working week.
- 1.10 Using a conservative multiplier of 275² to convert the 12-hour daily patronage forecast for the CtoC busway to an annual figure, the annual patronage would be 2.8 million.
- 1.11 As a sense check, the existing Cambridgeshire Guided Busway is reported to have carried approximately 2.7 million passenger journeys in 2023 [CD7-33 §6.2.4]. This figure includes *all* trips on services that use the busway, not just trips *along* the busway. Those services carry people between Huntingdon, St Ives, Swavesey, Longstanton and Northstowe, Oakington, Histon and Impington and Cambridge (including the Science Park, Regional College, West Cambridge University campus, Eddington, the Biomedical Campus, CB1, the city centre, both railway stations, and Trumpington P&R). Many of the trips counted start and end within Cambridge or Huntingdon. The catchment population of these services is clearly very much larger than for the CtoC busway under any growth scenario currently being considered within that corridor, making the 2041 forecast for the CtoC busway extremely implausible.
- 1.12 Whatever the error was that resulted in such an implausibly high bus patronage forecast, it must surely invalidate the entire economic appraisal.

¹ Source: Cambridgeshire Insight

https://cambridgeshireinsight.org.uk/population/reports/?geography_id=f7de925f5608420c825c4c0691de5af2&feature_id=E07000008#/view-report/0e80000fe3664109b42bc3010a02ab7c/E05014031/G7 and https://cambridgeshireinsight.org.uk/housing/reports/?geography_id=e9f4df857f3246a8b36fc0708ad08ac6&feature_id=E07000008#/view-report/151ebb2e771e4a90a345bdde82317b50/E05013050/G7

² A multiplier of 275 is commonly used in the rail industry to convert weekday to annual patronage.

- 1.13 In my view, a robust analysis would have involved the Applicant also modelling Do Minimum and Do Something scenarios that included the 3,850 “dependent” housing and using the outputs of that modelling to inform a conventional economic appraisal. This would then have served as a benchmark against which to compare the Applicant’s unconventional and questionable approach of attributing the large majority of the social benefits of the proposed scheme to the LVU uplift of those new homes.
- 1.14 In summary, my position remains that the economic appraisal is fundamentally flawed. As far as I am aware from his evidence, Mr Whitehouse has not himself inquired into the rationale for the methodology set out in the ECA or the accuracy of the working behind it.
- 1.15 A final observation: at §4.3.6 of Mr Whitehouse’s PoE, he asserts, “*EWR was not considered near certain or more than likely, and in line with business case guidance [CD8-21, page 51, Table A2] was not included in the core scenario.*” It has never been our contention that EWR should have been included in the Core Scenario. Our contention has been that the Applicant should have modelled *a scenario* that includes EWR **[CD26-10-W2-1 §3.14]** to sensitivity-test the business case.

2 Rebuttal evidence: CD26-01-APP-W10-1

- 2.1 The rebuttal evidence in this section pertains to Ralph Lewis's Proof of Evidence [CD26-01-APP-W10-1] submitted by the Applicant.
- 2.2 At §7.3.4 of his proof, Mr Lewis asserts, "*Cambridge Past Present and Future's 'on-road' proposal has repeatedly failed to meet the scheme's objectives,*" and then at §7.3.5, "*Contrary to claims, this on-road alternative was assessed in depth during the 2017–2018 consultations and again in the Outline Business Case.*" However, as I describe in my proof [CD26-10-W3-1] at §3.5 to 3.9, the Applicant's assessments of an in-highway solution have been based on over-specified designs and without any consideration of acceptable departures from standards in response to constraints, which would be a normal step in designing a road.
- 2.3 Mr Lewis further asserts in §7.3.4, "*CPPF's route lacks the capacity, reliability, and future flexibility required.*" Yet the Applicant has never specified targets for capacity (in terms of buses per hour) or reliability (an acceptable and reasonable variation in journey times). Nor is "future flexibility" a scheme aim [CD1-04 §4].
- 2.4 Later in §7.3.4, Mr Lewis asserts that the CPPF Alternative "*would cause unacceptable disruption to general traffic*". He does not explain how the addition of a bus lane unacceptably disrupts general traffic.
- 2.5 Later in §7.3.4, Mr Lewis asserts that the CPPF Alternative "*would ... compromise safety , particularly outside the American Cemetery.*" Mr Lewis will not have had a chance to examine the detailed design that Cambridge Past Present and Future and Coton Parish Council commissioned [CD26-10-W2-1 **Appendix F**], but this seeks to significantly improve safety in the vicinity of the American Cemetery by reducing the speed limit to 40mph, narrowing the lanes to 3.25m and adding a two-stage pedestrian crossing to facilitate access to/from the westbound bus stop and between public footpaths 154/4 to the north and 55/2 to the south. The reduction in speed would reduce the risk of a collision when buses and coaches turn right into and pull out from the Cemetery entrance.
- 2.6 At §7.3.6, Mr Lewis states that, "*the CPPF route fails to accommodate future integration with East West Rail.*" It is not a stated aim of the Applicant's scheme [CD1-04 §4] to integrate with East West Rail and nor does it. Cambridge Past, Present and Future and Coton Parish Council are not proposing the removal or any alteration to the proposed busway west of Hardwick, and therefore there is no difference between the two schemes in how buses may serve any future EWR station at Cambourne.

- 2.7 Mr Lewis further asserts in §7.3.6 *“the CPPF route fails to ... scale to serve increased population forecasts.”* The capacity of a bus lane is little different to the capacity of a lane of a busway, so it is unclear what Mr Lewis means by claiming that the busway can scale more. The omission of an outbound bus lane in the CPPF Alternative is justified by the lack of any evidence that one is or will be needed **[CD26-10-W3-1 §4.2]**.
- 2.8 Later in §7.3.6, Mr Lewis asserts, *“[The CPPF route] lacks connectivity to key employment hubs such as West Cambridge.”* Yet, Madingley Road runs along the northern edge of the West Cambridge site, and just 400m to the north of the road Charles Babbage Road, which the Applicant’s busway scheme would use. Each road is necessarily closer to some destinations than the other. Bus service planners would be entirely free to route buses through the West Cambridge site or along Madingley Road or a mix of the two.
- 2.9 Further on in §7.3.6, Mr Lewis asserts, *“[The CPPF route] fails to support first/last mile active travel.”* It is unclear what he means here by “first/last mile” because most bus users walk to/from their bus stops. In the CPPF Alternative, all existing bus stops on Madingley Road would be retained and access to/from them would be unaffected or, in some cases enhanced, for instance, at the American Cemetery. If Mr Lewis is referring to the fact that the Applicant’s scheme includes a new shared-use active travel path, this will duplicate the Comberton Greenway east of Hardwick **[CD9-49 and CD23-13-2]**, as Mr Johnstone points out his PoE **[CD26-10-W2-1 §4.03]**. The CPPF Alternative retains a shared-use path alongside Madingley Road for the relatively small number of people who will continue to use this route once the Comberton Greenway is open.

3 Corrections and clarifications

- 3.1 At §4.4.4.2 of my PoE **[CD26-10-W3-1]**, I inadvertently repeated the PM hourly patronage for the inter-peak. The actual inter-peak figure, from the referenced table, is 232 trips per hour, not 320. This does not affect the conclusion.
- 3.2 I need to correct the assertion I made at 4.4.8.5.6 of my Proof (“... *would yield a negative Total Benefits figure of £-66.32m, which would equate to a negative Indicative BCR ...*”). The Adjusted Present Value Benefits of the scheme, given in ECA **[CD1-21.02]** Table 4-12 is £70.62m. Therefore, after adding the (negative) LVU benefits, the Indicative Present Value of Benefits would be £4.3m, which would equate to an Indicative BCR of 0.0 (i.e. not negative). This would be Poor, rather than Very Poor, Value for Money, though on the borderline between the two categories.
- 3.3 Also, at §4.4.8.6.3 (“... *would equate to an Indicative BCR of 0.5 ...*”). Adding the £69.93m LVU benefits to the Adjusted Present Value Benefits of £70.62m, the Indicative Present Value of Benefits would be £140.55m, which would equate to an Indicative BCR of 1.0 (not 0.5), which would be Low Value for Money.
- 3.4 To clarify the assertion at §4.4.8.11, the net LVU benefits would be £-163.48m. When added to the Adjusted Present Value Benefits of £70.62m, the Indicative Value of Benefits would be £-92.86m, which would equate to an Indicative BCR of -0.7, which would be Very Poor Value for Money.