

Job Name:Sharpness ValeJob No:332210067Note No:332210067-701-TN003Date:August 2024Prepared By:Leigh StolworthySubject:332210067-708-TN001 - Update to Sharpness Vale DRT- Coach Services

1 Background

- 1.1 Stantec UK Limited (Stantec) has prepared this Technical Note on behalf of Sharpness Development LLP, to provide transport support for the development of Sharpness Vale in the Stroud District of Gloucestershire. This Technical Note has been prepared as a response to queries outlined by the Inspectors appointed to examine the Stroud District Local Plan Review. These queries were raised in a letter dated 4th August 2023 which is provided in Appendix A. The specific query relating to Mobility-as-a-Service (MaaS) stated:
- 1.2 "Whilst additional evidence has been submitted regarding the MaaS scheme, this does not provide indicative costs for implementing such a scheme at Sharpness. We therefore have concerns regarding its likely cost, how it would be funded and whether it would be viable. In addition, we are still not clear how a scheme like this has been successfully implemented in the context of a new settlement rather than an urban area where existing public transport options already exist and are well-established" (Paragraph 21).
- 1.3 An element of the proposed Maas Scheme at Sharpness Vale is the provision of express coach services between the site, Gloucester and Bristol before passenger rail services can be viably implemented. As these coach services are intended to ramp up as demand increases aligned the build out of the development they are also referred to in previous evidence as demand responsive transit (DRT).
- 1.4 This note sets out detail regarding the operational and cost aspects associated with this service as the development is built out as well as changes to the planned services that are required as a result of other parallel processes and studies.

DOCUMENT ISSUE RECORD

Technical Note No	Re v	Date	Prepared	Checked	Reviewed (Discipline Lead)	Approved (Project Director)
332210067-708-TN001	0	01/09/2024	LS			LS

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2 Nature of the proposed express coach services at Sharpness

- 2.1 Previous work undertaken to understand the requirements for express coach Services to support longer distance trips beyond the site were based on the assumption that passenger rail services would be reintroduced on the Sharpness branch line once a certain threshold of potential patronage was achieved based on the number of occupations linked to an estimated buildout rate for the site.
- 2.2 The rail services proposed were based on the demand for rail trips to Gloucester only as the south facing rail chord no longer exists and rail trips towards Bristol would not be possible without first travelling north (in the opposite direction) to Cam and Dursley Station and transferring to a south bound train on the Gloucester to Bristol mainline.
- 2.3 The initial intention was to provide peak hour coach services towards both Gloucester and Bristol from early in the development utilising smaller fleet vehicles and ramping up the frequency and vehicle size as the demand increased aligned to increasing occupations at the site over time.
- 2.4 The planning for the express coach services previously based on the above considerations is indicated diagrammatically in **Figure 2.1** below.



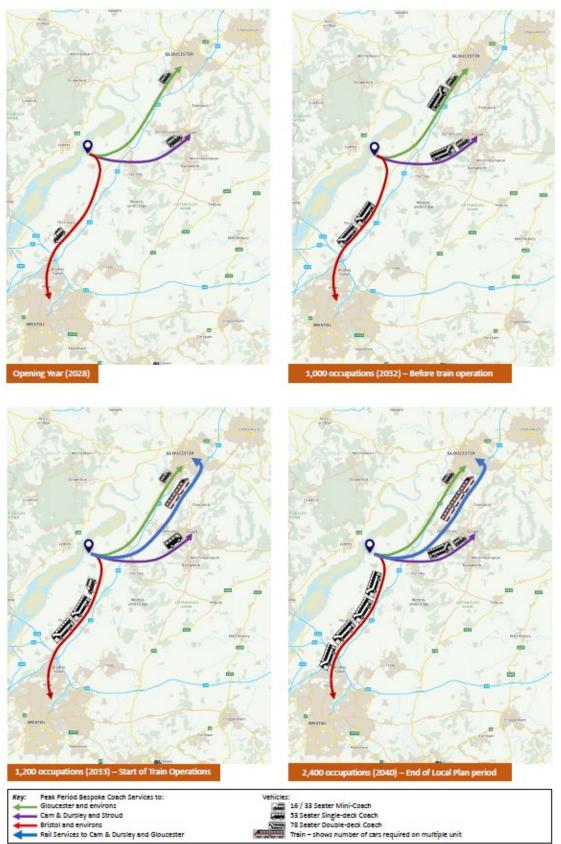


Figure 2.1 - Previously Planned Sharpness Vale Incremental Introduction of Express Coach and Passenger Rail Services



2.5 Stantec has previously met with Zeelo as a provider of bespoke road based public transport solutions to serve defined key origins and destinations. In the case of Sharpness Vale, the key destinations were defined as follows:

Services to Gloucester

- Sharpness Vale
- Oldends (Stonehouse)
- Gloucester Town Centre

Services to Bristol

- Sharpness Vale
- Aztec West
- Rolls Royce
- Airbus
- MoD
- UWE
- Bristol Town Centre
- 2.6 The routes planned for this service are indicated diagrammatically in **Figure 2.2** below.



Figure 2.2 - Express Coach Services - Routes Planned for Costing with Zeelo

- 2.7 The above routes were used as a basis for engaging with Zeelo in 2021 who provided operational cost information associated with the provision of a service as well as the supporting technology provided with the services which included a mobile phone application enabling the purchase of tickets and passes, journey planning, managing rides and customer services.
- 2.8 Operational and cost information associated with this service by Zeelo is included as Appendix B of this note.
- 2.9 The planned operational characteristics of the proposed coach services as well as the cost information provided by Zeelo were used as a basis for preparing an operating cost model for public transport services for Sharpness Vale which was previously provided as local plan evidence. This is included again in this note for ease of reference as Appendix C.
- 2.10 The road based public transport services previously planned for Sharpness Vale are now subject to refinement as a result of the outcomes of the Strategic Outline Business Case for the Sharpness Passenger Rail Service which was concluded in August 2024 as well as work undertaken to identify an interim highway mitigation scheme at the M5 Junction 14. This is discussed in the sections below.



3 Sharpness Passenger Rail Strategic Outline Business Case.

3.1 In response to queries outlined by the Inspectors appointed to examine the Stroud District Local Plan Review as well as through engagements with Network Rail with regard to the planning for the reintroduction of passenger rail services on the Sharpness branch line, a Strategic Outline Case was prepared for the proposed services. The queries raised by the Inspectors in relation to rail provision at Sharpness were raised in a letter dated 4th August 2023 which is provided in Appendix A. The specific query relating to rail services stated:

"Specifically, the cost of providing a passenger train service has not been audited or agreed with Network Rail or the relevant Train Operating Company (TOC). The costs therefore may well be subject to change. In response to suggestions that the scheme would not meet the criteria to apply for external funding, the developer has said that it would be self-funded by the development. However, this leaves limited flexibility should costs rise as is often the case with infrastructure projects. Furthermore, the developer advised that any subsidy for the railway service would end after 3 years at which point it would be expected to be self-funding. We are not convinced that this would allow a sufficient timeframe for a new service to be established. In addition, the train service would call at Gloucester and would not extend to Bristol, which is an important economic centre. Given that the service would need the agreement of Network Rail and the TOC we are also concerned about the lack of recent engagement. We therefore have concerns that the train service is not viable or deliverable whether it is self-funded or not." (Paragraph 20)

- 3.2 The Strategic Outline Case (SOC) for Rail report will be provided separately as new evidence to the examination and is not reproduced here.
- 3.3 The SOC was prepared independently by specialist consultants from the DfT STAR framework as recommended by Network Rail and followed the defined DfT process for the development of a Strategic Outline Case. This included engagement with a range of stakeholders including the relevant Train Operating Company (TOC).
- 3.4 In summary the SOC concluded that the reintroduction of the passenger rail service on the Sharpness branch should be considered as strategically important regionally acknowledging the planned economic and residential growth in the area with strategic investment planned for the old Berkeley Power Station as well as residential developments including Sharpness Vale.
- 3.5 The SOC also concluded that the reintroduction of the Southern Chord to enable rail tips to Bristol is key to increasing the passenger demand and overall viability of the services. It acknowledges that this as well as reaching a reasonable passenger demand threshold is a longer-term consideration than was previously envisaged. It recognises that due to the timeframes required to unlock the service provision, the passenger demand realisation as well as the strategic significance of the proposal it should be driven by a wider range of stakeholders than just the Sharpness Vale Site promoters alone.
- 3.6 Sharpness Development LLP is in the process of initiating engagement with a range of stakeholders identified as key to the long-term unlocking of the passenger rail services at Sharpness with a view to establishing a steering group to drive the process forward due to the strategic significance of the proposed services and the need to develop the proposals further to meet the needs of these stakeholders.
- 3.7 The implication of the outcomes of the Rail SoC on road based public transport services previously planned for Sharpness Vale is that the services will need to be re-planned with operations extending to beyond the Local Plan period and up to the development of the ultimate 5000 homes planned at Sharpness Vale.



4 The Effect of the Junction Modelling and Interim Highway Mitigation Scheme at the M5 Junction 14

- 4.1 A proportion of the Sharpness Vale Development generated traffic is anticipated to traverse through the M5 Junction 14 which includes planned coach services towards Bristol.
- 4.2 Stantec has engaged with National Highways to obtain their VISSIM microsimulation model of the M5 Junction 14, for the purpose of assessing the impact of these trips on the M5 Junction 14.
- 4.3 Further to the above, Stantec has assessed the potential for Sharpness Vale Development traffic to be accommodated at the M5 Junction 14 and the neighbouring A38/B4509 junction, and the associated highway mitigation likely to be required to alleviate the impact of those additional development trips on the highway network.
- 4.4 A technical note has been produced detailing the technical modelling work undertaken to identify an interim highway mitigation scheme at the M5J14 which could accommodate a number of homes developed at Sharpness Vale before the planned full upgrade scheme for the M5J14 comes forward. This technical note (332210067-701-TN001) together with two other subsequent and related technical notes are provided separately as evidence to the examination and are not reproduced here. The main technical note mentioned above and associated modelling files and drawings were issued to National Highways for consideration on 31 July 2024.
- 4.5 National Highways have reviewed this work and there are additional requirements identified before it can be supported as an interim solution to partial development at Sharpness Vale. This is detailed in the technical notes mentioned above.
- 4.6 In summary, the outcome of this work concluded that it would be possible to provide highway mitigation to enable the development of up to 1000 homes at Sharpness Vale (subject to the further refinements requested by National Highways in a meeting on 27 August 2024). It is acknowledged that once this process is concluded and the interim scheme is supported by National Highways, they would apply a Grampian condition to a development application for Sharpness Vale limiting the development to 1000 units until the full upgrade scheme for the M5 Junction 14 is implemented.
- 4.7 This has implications for the road based public transport services previously planned as described in section 2 above and will require refinement to the operational characteristics as well as the costing of the coach services to be provided if traffic routing through the M5 Junction 14 is limited to that generated by 1000 units.

5 Conclusion

- 5.1 Previous work undertaken on the proposed provision of express coach services to both Gloucester and Bristol showed that this would be a viable option for car alternative transport provision for key destinations beyond the site.
- 5.2 The outcome of both the recent SOC for Sharpness Passenger Rail Services and the M5 junction 14 modelling work and associated interim highway mitigation scheme will affect the operational characteristics and costing of planned coach services from the site towards both Bristol and Gloucester.
- 5.3 It has not been possible to develop a refined model for the proposed express coach services until these processes are concluded and the overall proposed transport systems beyond the site and the timing thereof is more certain.



- 5.4 Coupled to this, since the initial express coach services were planned, there are additional alternatives for demand responsive transit available in the market that have been successfully implemented in other rural contexts in the UK.
- 5.5 Stantec have set up engagements with Via who are the provider of DRT services in Worcestershire as mentioned in the updated MaaS technical note provided as part of the updated examination evidence pack. A meeting with Via is scheduled for 5 September 2024 where information will be provided to enable Via to provide an assessment of a service between Sharpness and key destinations as well as the operational characteristics and costs thereof. This could be provided as supplementary evidence as soon as it is available.



Appendix A Letter from Inspectors

Stroud District Local Plan Review Examination

Inspectors: Victoria Lucas LLB MCD MRTPI and Yvonne Wright BSc (Hons) DipTP MSc DMS MRTPI

Programme Officer: Ms Charlotte Glancy Email: <u>bankssolutionsuk@gmail.com</u>

Tel: 01903 776601 Mobile: 07519 628064

Mr Mark Russell Head of Planning Strategy and Economic Development Stroud District Council

Sent by email

4 August 2023

Dear Mr Russell

Stroud District Local Plan Review Examination

- 1. We wish to extend our thanks to the Council and all other participants for their contributions to the recent hearing sessions for the Examination of the Stroud District Local Plan Review (the Plan). We indicated at the end of June that we would need to take some time to consider the additional evidence submitted during the hearing sessions, before providing our thoughts on the way forward for the remainder of the Examination.
- 2. We now consider it expedient for us to express our current thoughts, particularly regarding our fundamental concerns on issues surrounding the Strategic Road Network (SRN) and the Sharpness new settlement. We also have concerns regarding the new settlement at Wisloe which we will consider first.

Wisloe new settlement and other soundness issues

- 3. Our concerns relate to the provision of the pedestrian and cycle bridge over the motorway. As a critical piece of infrastructure, we would require the evidence to clearly demonstrate that this is both viable and deliverable. During the hearing session it became apparent that the projected costs for this piece of infrastructure and timescales for delivery had not been recently agreed with National Highways. We therefore have concerns that the costs for implementing this scheme may be higher than anticipated which could affect the overall viability of the site.
- 4. The evidence shows that the provision of this bridge is essential to ensure there is a sustainable pedestrian and cycle route to and from the nearby railway station and to other local services and facilities. Without it, the sustainable accessibility of this new settlement is of concern. However, we feel that additional evidence on this issue, could potentially alleviate our concerns. Such evidence would need to demonstrate outcomes from further discussions with National Highways setting out agreed project costs and timescales and provide updated viability evidence for the site. We recognise that this would presumably take some time to achieve.
- 5. In addition to this, whilst we have a number of other soundness concerns with the Plan, we are confident that it is likely that these could be addressed by main modifications. However, these do not detract from our fundamental concerns over the soundness of the Plan, to which we now turn.

Strategic Road Network (SRN)

- 6. You will recall that at the start of the Examination, we held a focussed session to discuss issues relating to the SRN. This included discussion on Junctions 12 to 14 of the M5 motorway. The evidence base clearly identifies the need for improvements to all three junctions during the plan period. Those at Junction 13 appear to be specifically required to accommodate the site allocation under Policy PS20, whilst larger strategic junction improvements are necessary for Junctions 12 and 14 to accommodate the planned growth in the District. Indeed, the need for such improvements was not disputed by relevant parties. We focus our concerns in this regard on Junctions 12 and 14.
- 7. We fully recognise that issues with the capacity and safety of the SRN cannot be resolved by the District of Stroud alone. It is very much a wider regional concern that requires a more strategic resolution. Notwithstanding the engagement that has been held between the Council and key SRN stakeholders, we are concerned that the

evidence does not clearly set out when the improvements would be required during the plan period and how they would be funded and secured. We consider convincing evidence on these points to be fundamental to the soundness of the Plan.

- 8. At the end of the focussed session, we asked the Council to discuss a way forward on the SRN issues with relevant statutory stakeholders (specifically neighbouring Councils, the Highway Authority and National Highways) and to agree a project timetable with measurable outcomes. We were quite clear that simply agreeing to continue to talk about this issue would not address our concerns. We therefore provided the Council with the opportunity to prepare further evidence in connection with our concerns.
- 9. In response to this, the Council submitted the document Strategic Road Network – Agreed Next Steps. We wrote a brief letter in response to the Council dated 6 June 2023 stating that we were not convinced that the statement addressed our fundamental concerns. Whilst we appreciate the efforts of the parties involved in the process of producing the document, it does not include any timescales or measurable outcomes and commitments.
- 10. As regards the issue of funding, the Transport Funding and Delivery Plan (July 2022) (TFDP) sets out a methodology that calculates the financial contributions that specific developments within Stroud District would contribute towards the identified SRN schemes. We have concerns regarding this methodology, specifically the lack of justification for the apportionment method used which uses growth from Stroud alone as a proxy for growth in neighbouring areas and the lack of agreement with neighbouring Councils as to predicted growth within their areas.
- 11. Neighbouring Councils and the County Council have also made it clear that at the present time they are unable to clarify the quantum or location of future growth that will take place in their areas due to the early stage of their Local Plans. Whilst we appreciate that Stroud District Council wish to proceed with the adoption of their Plan, the approach proposed by the Council to attempt to deal with the SRN infrastructure requirements is inadequate. At this stage, we are neither satisfied that the methodology provides justified outcomes nor is it accurate in terms of presenting a pattern of future growth on which decisions about the funding of strategic infrastructure can be based.
- 12. During the hearing session held on 23 March 2023, which focused on Strategic Transport Infrastructure (Matter 11), it was acknowledged by the parties present that the costs for the M5 Junction 12 and

Junction 14 improvement schemes are, in reality, likely to be significantly higher than the costs identified in the TFDP. The significant increase in costs makes it unrealistic for these schemes to be funded solely from developer contributions. Accordingly, and as acknowledged by the Council and other parties present at the session, some form of external government funding would need to be attained. No such funding bids are currently in preparation or actively being sought.

- 13. We are aware that it usually takes many years to bid for and secure appropriate funding for such strategic road infrastructure, so it is clearly not a quick process. As things stand, there are no current realistic plans for how and when the improvements to Junction 12 and Junction 14 would be funded or delivered. Based on the evidence, we have significant concerns as to whether the SRN infrastructure improvements required to accommodate the planned growth would be delivered during the plan period.
- 14. We are mindful of the Council's desire to have a Plan in place and recognise the contribution towards sustainable development objectives that having an up-to-date Plan in place would make, not least by increasing the supply of housing and employment opportunities which are important Government objectives. However, such growth must be planned and delivered sustainably. Part of that consideration involves ensuring that the necessary infrastructure will be in place to support that growth.
- 15. In response to our request at the focussed session held on 23 March 2023, the Council produced a note indicating which site allocations they considered could be delivered without triggering the need for the mitigation schemes to be delivered at M5 Junctions 12 and 14 (SLP-AP-002, Appendix 2, dated 12 May 2023). The note also usefully sets out those sites which would trigger the need for the mitigation works to be delivered. In relation to Junction 12 these are identified as: G1 (South of Hardwicke), G2 (land at Whaddon) and PS30 (Hunts Grove Expansion). For Junction 14 these are identified as: PS34 (Sharpness Docks), PS36 (New Settlement at Sharpness) and PS37 (New Settlement at Wisloe).
- 16. We note the concerns raised by National Highways to the Council's approach in determining this list of sites. Whilst we acknowledge these concerns, the Council's list usefully emphasises the fact that the delivery of the Plan's spatial strategy for growth, which includes the creation of two new settlements, is dependent upon the SRN infrastructure improvements at Junctions 12 and 14.

- 17. National policy emphasises the need for development, including new settlements, to be supported by necessary infrastructure. The Planning Practice Guidance (PPG) sets out how a Plan can demonstrate that it can deliver strategic matters, through identifying how infrastructure can be funded and brought forward, and where existing infrastructure cannot meet forecast demands how these can be addressed. Also, whilst acknowledging that there may be uncertainty regarding securing funding for strategic infrastructure, the PPG states that it must be demonstrated that there is a reasonable prospect that proposals can be developed within the timescales envisaged.
- 18. Based on our concerns as expressed above, we do not at this stage have confidence that necessary improvements to M5 Junctions 12 and 14 will be funded and delivered during the plan period. We therefore cannot conclude that there is a reasonable prospect that the relevant site allocations will be delivered and, therefore, that the spatial strategy as a whole is sound.

Sharpness new settlement

- 19. In relation to Sharpness, the proposal in the Plan seeks to build a sustainable settlement based on garden city principles and the prioritisation of transport by means other than the private car has been put at the heart of the development's ethos. However, whilst a significant amount of evidence has been submitted regarding the provision of a passenger train service and bespoke Mobility as a Service transport scheme (MaaS), we have serious concerns relating to the viability and deliverability of these schemes.
- 20. Specifically, the cost of providing a passenger train service has not been audited or agreed with Network Rail or the relevant Train Operating Company (TOC). The costs therefore may well be subject to change. In response to suggestions that the scheme would not meet the criteria to apply for external funding, the developer has said that it would be self-funded by the development. However, this leaves limited flexibility should costs rise as is often the case with infrastructure projects. Furthermore, the developer advised that any subsidy for the railway service would end after 3 years at which point it would be expected to be self-funding. We are not convinced that this would allow a sufficient timeframe for a new service to be established. In addition, the train service would call at Gloucester and would not extend to Bristol, which is an important economic centre. Given that the service would need the agreement of Network Rail and the TOC we are also concerned about the lack of recent engagement. We therefore have concerns that the train service is not viable or deliverable whether it is self-funded or not.

- 21. Whilst additional evidence has been submitted regarding the MaaS scheme, this does not provide indicative costs for implementing such a scheme at Sharpness. We therefore have concerns regarding its likely cost, how it would be funded and whether it would be viable. In addition, we are still not clear how a scheme like this has been successfully implemented in the context of a new settlement rather than an urban area where existing public transport options already exist and are well-established.
- 22. Taking these issues together, they call into question whether the sustainable accessibility of the site can be achieved. Should both the train service and the MaaS scheme not be delivered as proposed within the Plan then what would remain would be a large new settlement where the use of the private car for external journeys would likely become the default option for the majority of residents. This outcome would fundamentally conflict with the Plan's overall vision, its spatial strategy and the garden city ethos for new settlements.

Way forward

- 23. We have carefully considered various possible alternative ways forward, including whether an early review of the Plan would be acceptable or whether pausing the Examination to allow for the preparation of further evidence on the SRN and new settlement issues would be productive. However, we believe that our concerns are so fundamental to the Plan as a whole that this would not be something that could be appropriately addressed by an early review of the Plan. Moreover, recognising our concerns about how long it would be likely to take to progress this additional evidence, particularly in relation to the successful securing of external funding bids and determining when the infrastructure would be delivered, we seriously question the usefulness of allowing a delay to the Examination which could be for an extensive period.
- 24. Given the issues that we have identified regarding the SRN and the new settlements, this potentially means that a significant proportion of the Plan's allocated sites may not have a realistic or reasonable prospect of being delivered within the plan period. The lack of an immediate solution to the SRN issue is a significant constraint and on this basis we recognise that it is possible that Stroud District may not be able to meet its Objectively Assessed Need for housing in full.
- 25. However, before reaching a conclusion as to whether or not this is the case (and if so the extent of the shortfall), the Council would be likely to need to consider whether it could allocate omission sites to make up some or all of the shortfall. Inevitably, this would be a lengthy process as considerable additional evidence would be

required, including the assessment of cumulative impacts on the SRN. This work would also need to be agreed with key SRN stakeholders including National Highways. The outcomes of this work cannot be predicted at this time and the process would likely cause significant delays to the Examination process. It could also ultimately result in a fundamentally different spatial distribution of development which would be likely to require further extensive consultation and assessment. It would not be appropriate for this to be dealt with through an ongoing Examination.

- 26. Agreeing to a considerable delay or pause in the Examination process could also cause other issues as some existing evidence could become outdated, requiring more delays to allow for updates. At this time, we are not convinced that a significant delay to the Examination would be genuinely more effective than stepping back several stages in the plan making process to allow for adequate time to engage on the SRN and other issues, in order to achieve successful outcomes and consider the implications for the spatial strategy and for meeting the District's OAN.
- 27. Consequently, whilst we recognise the need for pragmatism in the examination of local plans and the desirability of an up-to-date plan for Stroud District being found sound as soon as possible, we think it only fair to advise you that we currently consider that withdrawal of the Stroud District Local Plan Review from this Examination may well be the most appropriate way forward. Given that the Plan's spatial strategy needs to be supported by necessary infrastructure provision and we have raised fundamental concerns about this issue, we seriously question how such matters could be addressed by alternative means.
- 28. Given that the relevant hearing sessions regarding the SRN, spatial strategy and site allocations have now been held and that these all relate to our fundamental concerns regarding soundness, there seems little merit in resuming the remainder of the hearing sessions after the summer break. This is because they would not change our views on the soundness issues that we have raised in this letter as they cover other matters that do not go to the heart of our concerns.
- 29. We recognise that you may need some time to consider your response to this letter and, therefore, we are setting no deadline for it. However, we will not reach final conclusions on the way forward for the Examination until we have had the chance to consider your response to this letter. It would therefore be helpful if you were able to give us a broad indication of the likely timescale for us to receive a full response as soon as possible. We have asked the Programme Officer to post a copy of this letter on the Examination website, but

we are not inviting, nor envisage accepting, comments on it from any other Examination participants.

30. We appreciate that the Council will be extremely disappointed by this letter. However, we trust that you recognise that we have not reached these initial conclusions lightly and have done so only after careful consideration of the evidence.

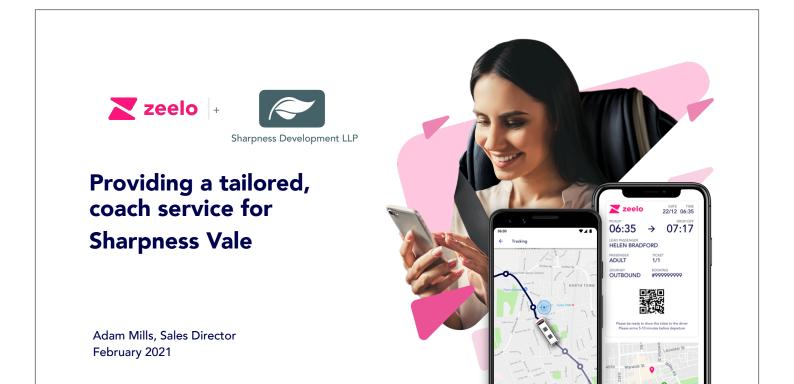
Yours sincerely

Victoria Lucas and Yvonne Wright

Inspectors appointed to examine the Stroud District Local Plan Review



Appendix B Sharpness Vale Coach Service Operational Cost Data – Zeelo

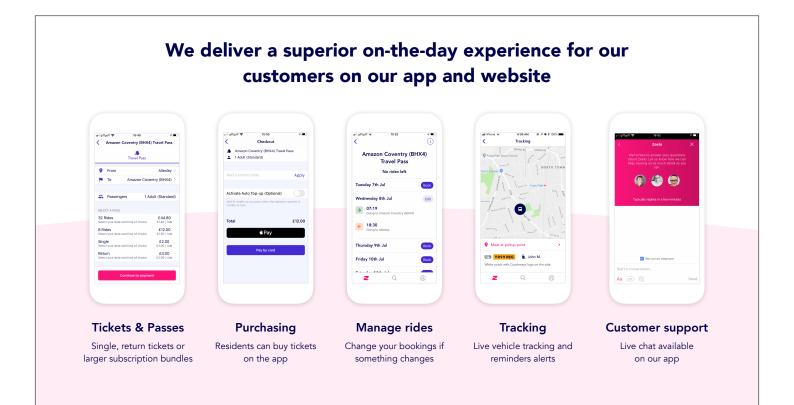


The brief	
	• 2023 start - exact date tbc , but consideration to estimate future growth years :
	o Yr 42027
	o Yr 82031
	o Yr 122035
	• Consideration for the transport provision to provide:
	• Peak periods captured by sustainable transport modes
	• Ease of access to key employment sites, and stations /lines (with access routes to Gloucester and Bristol)
	• A service that can "ramp up" from first phase of development to "end state"
	• With flexibility for destinations to change throughout the development process
	• Based on a 5 day service - tbc
	Consideration to two hour peak timetable slots
	o 0700- 09.00am
	o 17.00-19.00 pm
	• Targeting initially a "budget focussed" solution, with a 12 - 24 months contract period
	• Fares initially paid for by the developer
	• Then partly subsidised periods- tbc
	• Ultimately moving towards a full "farebox" system
	• Simple view on costings to determine next steps
	o note, full end to end service is included within our costs

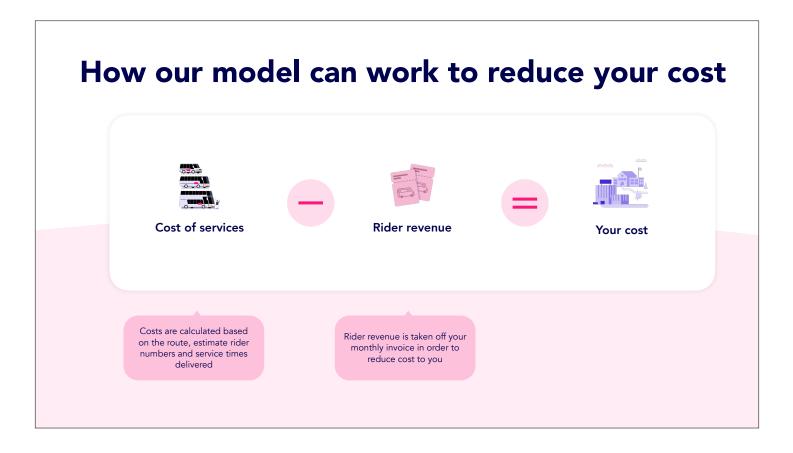
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PROPOSAL • SHARPNESS VALE

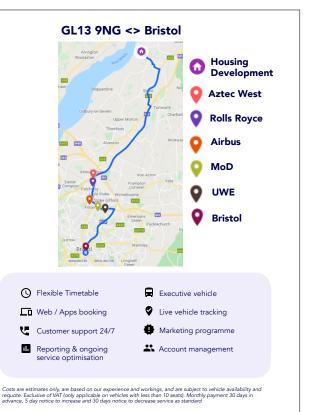
Transporting Development residents to key employment locations.

Shared multiple drop off Bristol service to include: MoD, Airbus, Rolls Royce, Aztec West, Bristol, UWE

Service description	Outbound	Return							
Estimated Times	Departure Times	Arrival Times	Departure Time	Arrival Time					
Journey Time Approx 35 Mins	06:50, 08:10	07:30, 08:50	17:00, 18:20	17:40, 19:00					

Price estimates

Vehicle size	16 seater	33 seater	53 seater	78 Seater
Gross daily cost	£410-£450	£475-£530	£540-£600	£690-£760
Net daily cost 80% sold, £4 per ticket return	£300-£340	£270-£320	£200-£260	£190-£270
Capped capacity 1m spacing	8 seats	16 seats	25 seats	39 Seats
Net daily cost 1m social distancing, 80% sold,£4 per ticket return	£360-£400	£370-£420	£380-£440	£440-£520



PROPOSAL • SHARPNESS VALE

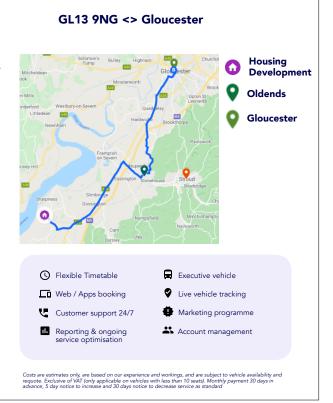
Transporting Development residents to key employment locations.

Shared multiple drop-off Gloucester service to include: Gloucester, Oldends Ind. Est.

Service description	Outbound		Return	
Estimated Times	Departure Times	Arrival Times	Departure Time	Arrival Time
Journey Time Approx 35 Mins	06:50, 08:10	07:30, 08:50	17:00, 18:20	17:40, 19:00

Price estimates

Vehicle size	16 seater	33 seater	53 seater	78 Seater
Gross daily cost	£410-£450	£475-£530	£540-£600	£690-£760
Net daily cost 80% sold, £4 per ticket return	£300-£340	£270-£320	£200-£260	£190-£270
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PROPOSAL • SHARPNESS VALE

Transporting Development residents to key employment locations.

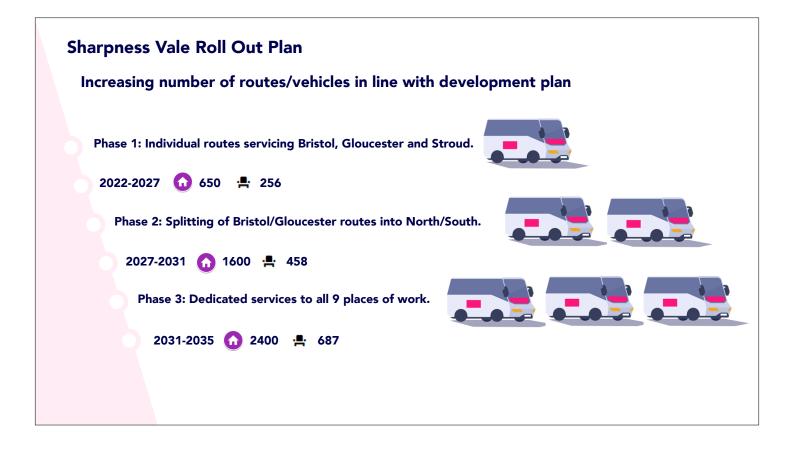
Stroud Service

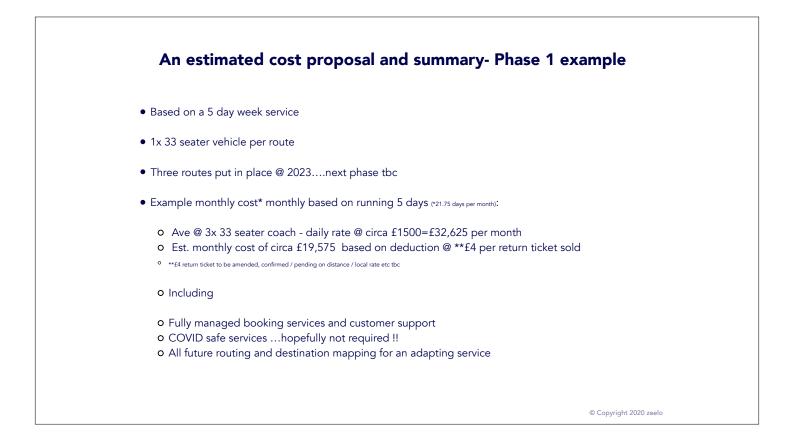
Service description	Outbound	Return							
Estimated Times	Departure Times	Arrival Times	Departure Time	Arrival Time					
Journey Time Approx 35 Mins	06:50, 08:10	07:30, 08:50	17:00, 18:20	17:40, 19:00					

Price estimates

Vehicle size	16 seater	33 seater	53 seater	78 Seater
Gross daily cost	£360-£400	£410-£450	£480-£530	£620-£680
Net daily cost 80% sold, £4 per ticket return	£250-£290	£200-£240	£140-£190	£120-£180
Capped capacity 1m spacing	8 seats	16 seats	25 seats	39 Seats
Net daily cost 1m social distancing, 80% sold, £4 per ticket return	£310-£350	£300-£340	£320-£370	£370-£430









Adam mills Commercial Director adam@zeelo.co Mob.07867 904812



Appendix C Sharpness Cumulative Long Distance Public Transport Model

2,400 House (Local Plan) Development Case

Housing trajectory - occupations this year		2025	2026	2027	2028 200	2029 200	2030 200	2031 200	2032 200	2033 200	2034 200	2035 200	2036 200	2037 200	2038 200	2039 20
Housing completions - cumulative		0	0	0	200	400	600	800	1000	1200	1400	1600	1800	2000	2200	240
Chartered Coach Provision																
Route 1 - Bristol employment sites	16 / 33 seaters	0	0	0	1	1	1	1	0	1	0	0	1	0	0	
	53 seaters	0	0	0	0	1	1	0	0	0	1	0	0	1	0	
	78 seaters	0	0	0	0	0	0	1	2	2	2	3	3	3	4	
Deute 2. Clausester 9 summer de	16 / 22	0	0	0		-	2	0	1	1			1	1	1	
Route 2 - Gloucester & surrounds	16 / 33 seaters	0	0	0	1	1	2	0	1	1	1	1	1	1	1	
	53 seaters	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	78 seaters	0	0	0	0	U	0	1	1	0	0	0	0	0	0	
Route 3 - Stroud	16 / 33 seaters	0	0	0	1	0	2	1	1	0	0	0	0	1	1	
	53 seaters	0	0	0	0	1	0	0	0	1	0	0	0	0	0	
	78 seaters	0	0	0	0	0	0	1	1	0	1	1	1	1	1	
Chartered Coach ANNUAL COST	250 Working days	•	U	U	U	U	U	-	-	Ū	-	-	-	-	-	
Route 1 - Bristol employment sites	16 / 33 seaters	£0	£0	£0	£125,000	£125,000	£125,000	£125,000	£0	£125,000	£0	£0	£125,000	£0	£0	£125,00
	53 seaters	£0	£0	£0	£0	£142,500	£142,500	£0	£0	£0	£142,500	£0	£0	£142,500	£0	£125,00
	78 seaters	£0	£0	£0	£0	£0	£0	£182,500	£365,000	£365,000	£365,000	£547,500	£547,500	£547,500	£730,000	
																,
Route 2 - Gloucester & surrounds	16 / 33 seaters	£0	£0	£0	£125,000	£125,000	£250,000	£0	£125,000	£125,000	£125,000	£125,000	£125,000	£125,000	£125,000	£125,00
	53 seaters	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£
	78 seaters	£0	£0	£0	£0	£0	£0	£182,500	£182,500	£0	£0	£0	£0	£0	£0	£
Route 3 - Stroud	16 / 33 seaters	£0	£0	£0	£125,000	£0	£250,000	£125,000	£125,000	£0	£0	£0	£0	£125,000	£125,000	£125,00
	53 seaters	£0	£0	£0	£0	£142,500	£0	£0	£0	£142,500	£0	£0	£0	£0	£0	£
	78 seaters	£0	£0	£0	£0	£0	£0	£182,500	£182,500	£0	£182,500	£182,500	£182,500	£182,500	£182,500	£182,50
TOTAL COSTS:		£0	£0	£0	£375,000	£535,000	£767,500	£797,500	£980,000	£757,500	£815,000	£855,000	£980,000	£1,122,500	£1,162,500	£1,287,50
RIDERSHIP																
Route 1 - Bristol employment sites					55	110	166	221	276	331	386	441	497	552	607	66
Route 2 - Gloucester & surrounds					39	78	117	155	194	30	34	39	44	49	54	5
Route 3 - Stroud					41	82	123	164	205	100	117	133	150	167	183	20
FAREBOX																
Route 1 - Bristol employment sites	£9.52	£0	£0	£0	£131,297	£262,593	£393,890	£525,187	£656,483	£787,780	£919,077	£1,050,373	£1,181,670	£1,312,967	£1,444,263	£1,575,56
Route 2 - Gloucester & surrounds	£6.96	£0	£0	£0	£67,593	£135,187	£202,780	£270,373	£337,967	£51,348	£59,906	£68,464	£77,022	£85,580	£94,137	£102,69
Route 3 - Stroud	£4.93	£0	£0	£0	£50,450	£100,901	£151,351	£201,801	£252,251	£123,300	£143,850	£164,400	£184,950	£205,500	£226,050	£246,60
TOTAL FAREBOX:		£0	£0	£0	£249,340	£498,680	£748,021	£997,361	£1,246,701	£962,428	£1,122,832	£1,283,237	£1,443,642	£1,604,046	£1,764,451	£1,924,85
ANNUAL RETURN THIS YEAR:		£0	£0	£0	£125,660	£36,320	£19,479	£199,861	£266,701	£204,928	£307,832		£463,642			
CUMULATIVE ASSESSMENT:		£0	£0	£0	£125,660	£161,979	£181,459	£18,402	£285,103	£490,031	£797,863	£1,226,100	£1,689,742	£2,171,288	£2,773,239	£3,410,59
Train Provision - to Cam & Dursley & Gl	oucester (replaces Coac	hes)														
Income and expenditure categories (per 1,000 km)																
Fare income										£3,431,480	£4,003,393	£4,575,307	£5,147,220	£5,719,133	£6,291,047	£6,862,96
MaaS contribution	£150,000									£75,000	£87,500	£100,000	£112,500	£125,000	£137,500	£150,00
Service Charge contribution	£125,000									£62,500	£72,917	£83,333	£93,750	£104,167	£114,583	£125,00
										£111,926	£130,580	£149,234	£167,888	£186,543	£205,197	£223,85
Other operator income	£447,702 National									£3,680,906	£4,294,390	£4,907,874	£5,521,358	£6,134,843	£6,748,327	£7,361,81
Other operator income	£447,702 National £722,702															
Other operator income Operating income (a)												£1,954,831	£1,954,831	£1,954,831	£1,954,831	£1,954,83
Other operator income Operating income (a) Staff	£722,702									£1,954,831 £187,899	£1,954,831 £187,899			£1,954,831 £187,899	£1,954,831 £187,899	
Other operator income Operating income (a) Staff Diesel fuel [note 1]	£722,702 £1,954,831 Chiltern									£187,899 £404,743		£1,954,831 £187,899 £404,743	£1,954,831 £187,899 £404,743	£187,899 £404,743	, ,	£187,89
Other operator income Operating income (a) Staff Diesel fuel [note 1] Rolling stock Access charges	£722,702 £1,954,831 Chiltern £187,899 National									£187,899 £404,743 £895,077	£187,899 £404,743 £895,077	£1,954,831 £187,899 £404,743 £895,077	£1,954,831 £187,899 £404,743 £895,077	£187,899 £404,743 £895,077	£187,899 £404,743 £895,077	£187,89 £404,74 £895,07
Other operator income Operating income (a) Staff Diesel fuel [note 1] Rolling stock Access charges Other operating expenditure [note 1]	£722,702 £1,954,831 Chiltern £187,899 National £404,743 Chiltern £895,077 Great Western £1,026,082 West Coast									£187,899 £404,743 £895,077 £1,026,082	£187,899 £404,743 £895,077 £1,026,082	£1,954,831 £187,899 £404,743 £895,077 £1,026,082	£1,954,831 £187,899 £404,743 £895,077 £1,026,082	£187,899 £404,743 £895,077 £1,026,082	£187,899 £404,743 £895,077 £1,026,082	£187,89 £404,74 £895,07 £1,026,08
Other operator income Operating income (a) Staff Diesel fuel [note 1] Rolling stock Access charges Other operating expenditure [note 1] Operating expenditure (b)	£722,702 £1,954,831 Chiltern £187,899 National £404,743 Chiltern £895,077 Great Western £1,026,082 West Coast £4,468,632									£187,899 £404,743 £895,077 £1,026,082 £4,468,632	£187,899 £404,743 £895,077 £1,026,082 £4,468,632	£1,954,831 £187,899 £404,743 £895,077 £1,026,082 £4,468,632	£1,954,831 £187,899 £404,743 £895,077 £1,026,082 £4,468,632	£187,899 £404,743 £895,077 £1,026,082 £4,468,632	£187,899 £404,743 £895,077 £1,026,082 £4,468,632	£187,89 £404,74 £895,07 £1,026,08 £4,468,63
Other operator income Operating income (a) Staff Diesel fuel [note 1] Rolling stock Access charges Other operating expenditure [note 1] Operating expenditure (b) Operators profit on Income	£722,702 £1,954,831 Chiltern £187,899 National £404,743 Chiltern £895,077 Great Western £1,026,082 West Coast £4,468,632 2.5%									£187,899 £404,743 £895,077 £1,026,082	£187,899 £404,743 £895,077 £1,026,082	£1,954,831 £187,899 £404,743 £895,077 £1,026,082 £4,468,632 £111,716	£1,954,831 £187,899 £404,743 £895,077 £1,026,082 £4,468,632 £111,716	£187,899 £404,743 £895,077 £1,026,082 £4,468,632 £111,716	£187,899 £404,743 £895,077 £1,026,082 £4,468,632 £111,716	£187,89 £404,74 £895,07 £1,026,08 £4,468,63 £111,71
Other operator income Operating income (a) Staff Diesel fuel [note 1] Rolling stock Access charges	£722,702 £1,954,831 Chiltern £187,899 National £404,743 Chiltern £895,077 Great Western £1,026,082 West Coast £4,468,632									£187,899 £404,743 £895,077 £1,026,082 £4,468,632	£187,899 £404,743 £895,077 £1,026,082 £4,468,632	£1,954,831 £187,899 £404,743 £895,077 £1,026,082 £4,468,632	£1,954,831 £187,899 £404,743 £895,077 £1,026,082 £4,468,632 £111,716 £941,010	f187,899 f404,743 f895,077 f1,026,082 f4,468,632 f111,716 f1,554,495	£187,899 £404,743 £895,077 £1,026,082 £4,468,632 £111,716 £2,167,979	£187,89 £404,74 £895,07 £1,026,08 £4,468,63 £111,71 £2,781,46
Other operator income Operating income (a) Staff Diesel fuel [note 1] Rolling stock Access charges Other operating expenditure [note 1] Operating expenditure (b) Operators profit on Income ANNUAL RETURN THIS YEAR:	£722,702 £1,954,831 Chiltern £187,899 National £404,743 Chiltern £895,077 Great Western £1,026,082 West Coast £4,468,632 2.5%									£187,899 £404,743 £895,077 £1,026,082 £4,468,632 £111,716 £899,442	£187,899 £404,743 £895,077 £1,026,082 £4,468,632 £111,716	£1,954,831 £187,899 £404,743 £895,077 £1,026,082 £4,468,632 £111,716	£1,954,831 £187,899 £404,743 £895,077 £1,026,082 £4,468,632 £111,716 £941,010	£187,899 £404,743 £895,077 £1,026,082 £4,468,632 £111,716	£187,899 £404,743 £895,077 £1,026,082 £4,468,632 £111,716 £2,167,979	£187,89 £404,74 £895,07 £1,026,08 £4,468,63 £111,71 £2,781,46
Other operator income Operating income (a) Staff Diesel fuel [note 1] Rolling stock Access charges Other operating expenditure [note 1] Operating expenditure (b) Operators profit on Income	£722,702 £1,954,831 Chiltern £187,899 National £404,743 Chiltern £895,077 Great Western £1,026,082 West Coast £4,468,632 2.5%									£187,899 £404,743 £895,077 £1,026,082 £4,468,632 £111,716 £899,442	£187,899 £404,743 £895,077 £1,026,082 £4,468,632 £111,716 £285,958	f1,954,831 f187,899 f404,743 f895,077 f1,026,082 f4,468,632 f111,716 f327,526	£1,954,831 £187,899 £404,743 £895,077 £1,026,082 £4,468,632 £111,716 £941,010	f187,899 f404,743 f895,077 f1,026,082 f4,468,632 f111,716 f1,554,495	£187,899 £404,743 £895,077 £1,026,082 £4,468,632 £111,716 £2,167,979	£187,89 £404,74 £895,07 £1,026,08 £4,468,632 £111,71 £2,781,46
Other operator income Operating income (a) Staff Diesel fuel [note 1] Rolling stock Access charges Other operating expenditure [note 1] Operating expenditure (b) Operators profit on Income ANNUAL RETURN THIS YEAR:	£722,702 £1,954,831 Chiltern £187,899 National £404,743 Chiltern £895,077 Great Western £1,026,082 West Coast £4,468,632 2.5%									£187,899 £404,743 £895,077 £1,026,082 £4,468,632 £111,716 £899,442	£187,899 £404,743 £895,077 £1,026,082 £4,468,632 £111,716 £285,958	f1,954,831 f187,899 f404,743 f895,077 f1,026,082 f4,468,632 f111,716 f327,526	£1,954,831 £187,899 £404,743 £895,077 £1,026,082 £4,468,632 £111,716 £941,010	f187,899 f404,743 f895,077 f1,026,082 f4,468,632 f111,716 f1,554,495	£187,899 £404,743 £895,077 £1,026,082 £4,468,632 £111,716 £2,167,979	£187,89 £404,74 £895,07 £1,026,08 £4,468,632 £111,71 £2,781,46
Other operator income Operating income (a) Staff Diesel fuel [note 1] Rolling stock Access charges Other operating expenditure [note 1] Operating expenditure (b) Operators profit on Income ANNUAL RETURN THIS YEAR:	£722,702 £1,954,831 Chiltern £187,899 National £404,743 Chiltern £895,077 Great Western £1,026,082 West Coast £4,468,632 2.5%									£187,899 £404,743 £895,077 £1,026,082 £4,468,632 £111,716 £899,442	£187,899 £404,743 £895,077 £1,026,082 £4,468,632 £111,716 £285,958	f1,954,831 f187,899 f404,743 f895,077 f1,026,082 f4,468,632 f111,716 f327,526	£1,954,831 £187,899 £404,743 £895,077 £1,026,082 £4,468,632 £111,716 £941,010	f187,899 f404,743 f895,077 f1,026,082 f4,468,632 f111,716 f1,554,495	£187,899 £404,743 £895,077 £1,026,082 £4,468,632 £111,716 £2,167,979	£187,89 £404,74 £895,07 £1,026,08 £4,468,63 £111,71 £2,781,46
Other operator income Operating income (a) Staff Diesel fuel [note 1] Rolling stock Access charges Other operating expenditure [note 1] Operating expenditure (b) Operators profit on Income ANNUAL RETURN THIS YEAR:	£722,702 £1,954,831 Chiltern £187,899 National £404,743 Chiltern £895,077 Great Western £1,026,082 West Coast £4,468,632 2.5%									£187,899 £404,743 £895,077 £1,026,082 £4,468,632 £111,716 £899,442	£187,899 £404,743 £895,077 £1,026,082 £4,468,632 £111,716 £285,958	f1,954,831 f187,899 f404,743 f895,077 f1,026,082 f4,468,632 f111,716 f327,526	£1,954,831 £187,899 £404,743 £895,077 £1,026,082 £4,468,632 £111,716 £941,010	f187,899 f404,743 f895,077 f1,026,082 f4,468,632 f111,716 f1,554,495	£187,899 £404,743 £895,077 £1,026,082 £4,468,632 £111,716 £2,167,979	£187,89 £404,74 £895,07 £1,026,08 £4,468,63 £111,71 £2,781,46
Other operator income Operating income (a) Staff Diesel fuel [note 1] Rolling stock Access charges Other operating expenditure [note 1] Operating expenditure (b) Operators profit on Income ANNUAL RETURN THIS YEAR:	£722,702 £1,954,831 Chiltern £187,899 National £404,743 Chiltern £895,077 Great Western £1,026,082 West Coast £4,468,632 2.5%	2025	2026	2027	2028	2029	2030	2031	2032	£187,899 £404,743 £895,077 £1,026,082 £4,468,632 £111,716 £899,442	£187,899 £404,743 £895,077 £1,026,082 £4,468,632 £111,716 £285,958	f1,954,831 f187,899 f404,743 f895,077 f1,026,082 f4,468,632 f111,716 f327,526	£1,954,831 £187,899 £404,743 £895,077 £1,026,082 £4,468,632 £111,716 £941,010	f187,899 f404,743 f895,077 f1,026,082 f4,468,632 f111,716 f1,554,495	£187,899 £404,743 £895,077 £1,026,082 £4,468,632 £111,716 £2,167,979	£187,89 £404,74 £895,07 £1,026,08 £4,468,632 £111,71 £2,781,46

/ERALL	YEAR:	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
\leq	ANNUAL RETURN THIS YEAR:	£0	£0	£0	£125,660	£36,320	£19,479	£199,861	£266,701	£694,515	£21,874	£755,763	£1,404,652	£2,036,041	£2,769,930	£3,418,819
0	CUMULATIVE ASSESSMENT:	£0	£0	£0	£125,660	£161,979	£181,459	£18,402	£285,103	£409,411	£387,537	£368,226	£1,772,878	£3,808,919	£6,578,849	£9,997,667