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Transport Report

Project:	Cotswold District Council Local Plan, Transport Evidence Review	Date:	2 November 2026
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1 Introduction

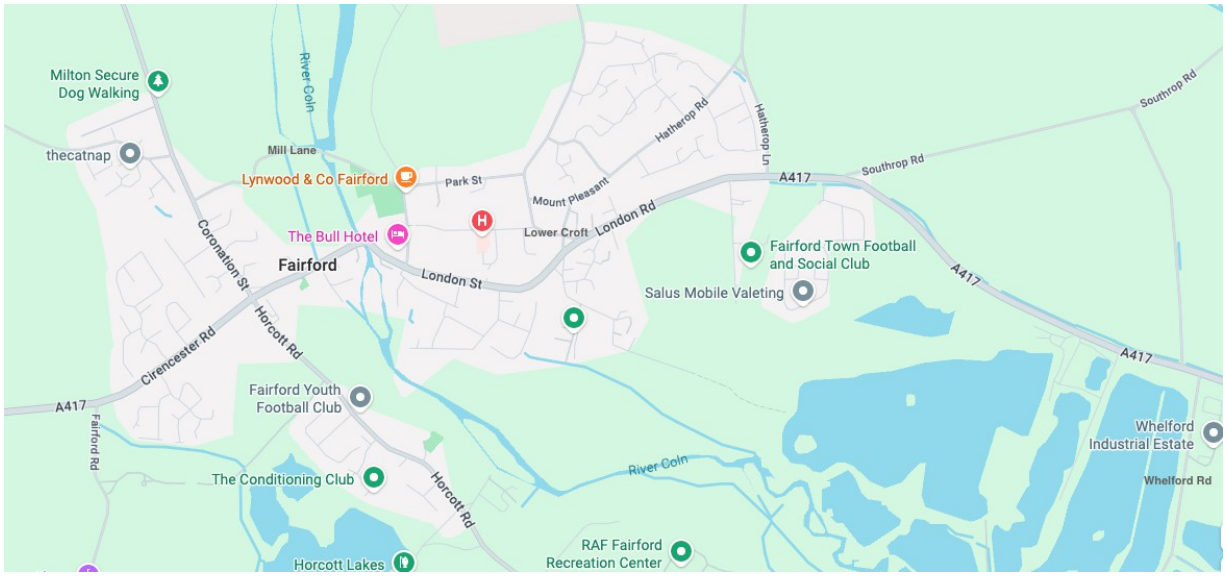
1.1.1 Helix Transport Consultants Ltd are appointed to undertake an initial review of the transport-related evidence support the emerging Cotswold District Local Plan (CDLP) on behalf of Fairford Town Council.

1.1.2 This document, therefore, considers the Strategic Transport Assessment (STA) prepared by City Science (CS) with a specific focus on the implications for Fairford.

1.1.3 This document also refers to a study of Fairford's transport infrastructure prepared by Helix in 2016 in support of Fairford's Neighbourhood Development Plan. Helix's 2016 report offers a useful 'historic' baseline comparison.

2 Transportation Infrastructure Assets

2.1.1 The following image identifies Fairford's key highway infrastructure:



Fairford Town Key Roads. Image courtesy of Google

2.2 Car

2.2.1 The principal local roads within the study area comprise: Cirencester Road, Coronation Street/Quenington Road; Horcott Road; [Mill Lane; Welsh Way]; High Street; Park Street; Leafield Road; The Croft / Lower Croft (official designation); Mt Pleasant; Hatherop Road; Hatherop Lane; London Street/London Road [and Southrop Road]. These roads fall within the general description of *a 'smaller road intended to connect together unclassified roads with A and B roads'*. The A417 is an A Class road although neither part of the Strategic nor Primary Road Networks. The A417 was detrunked in 1992.

2.2.2 Most roads within the study area are subject to a national speed limit of 30mph. The exceptions are: 40mph sections of the A417 to the east of Southrop Road and to the west of Scott Thomlinson Road; 20 m.p.h. speed limit in the centre of Fairford (including a stretch of A417).

2.2.3 Roads within the study area vary in width. The most generously proportioned road is High Street which, in part, offers 9m of active carriageway. The least generous carriageway is found on the A417 which has a width of just 3.4m, at its narrowest point.

2.2.4 Some street lighting is provided within the study area, although this does not achieve blanket coverage.

2.3 Public Transport

2.3.1 A range of bus services operate in the area. The most frequent bus service in Fairford remains the Number 77 travelling between Highworth and Cirencester via Fairford.

2.3.2 In 2016, the Number 77 bus service operated at a frequency of 6 buses per weekday and 3 buses per Saturday. The No. 77 bus service currently offers 4 buses per weekday and 3 buses per day on a Saturday.

2.3.3 In 2016 Helix identified a number of cost-effective measures that could encourage the uptake of bus travel. Measures included hard standing, signing and dropped kerb crossings. None of these potential improvements have been realised in the intervening decade.

2.4 Cycle

2.4.1 Although isolated from the National Cycle Route network, Fairford is a popular area amongst cyclists. The Town is identified on the Cotswold District Council's Route 4, and is the starting point of the Cotswolds: Great British Ride (book), as featured in the Guardian.

2.4.2 Notwithstanding the above, there is very little in the way of specific infrastructure within Fairford for cyclists. There are, for example, only limited public cycle parking stands within the town. Also, there are no any specific recommended or advisory routes for cyclists within Fairford.

2.4.3 It is understood that the long-held ambition to provide a cycle route connecting Lechlade and the Farmor's Secondary School, via the old railway line is unlikely to be realised due to the lack of agreement with one land owner. The alternative route is considered to be too convoluted and crosses land liable to flooding, making it an unreliable commuting option. CS has proposed a further alternative route via Southrop Road and Hambridge Lane (Lechlade) with one section on a cross-country footpath.

2.4.4 Given the high volume of traffic, prevailing speeds, narrow lanes and the on-street parking, the A417 is considered to be a disincentive to all but the most experienced cyclists.

2.5 Pedestrian

2.5.1 Footways are provided along at least one side of the main roads within central Fairford. Where footways are not provided, along older roads and in less built-up areas, pedestrians share the surface with vehicles.

2.5.2 Helix's 2016 report highlighted several areas in need of improvements not only to enhance connectivity and inclusion on-foot but also to improve the pedestrian realm more generally. There have been no significant alterations to the pedestrian environment in the last ten years.

3 Traffic Scenario Modelling

3.1.1 CS' STA presents analysis of the traffic implications of the proposed Cotswold District Council Local Plan allocations / strategic level growth aspirations. This analysis was carried out using Gloucestershire County Council's (GCC's) Gloucestershire Countywide Multi-Modal Model (GC3M).

3.1.2 It is understood that the modelling outputs produced by CS using the GC3M consist of:

- 2024 Base Year – the 2019 model adjusted to 2024 validated against observed traffic data.
- Future year Preferred Spatial Option (PSO) Scenario. The CS report indicates that: *Where potential issues were identified, mitigation measures were then considered and the PSO was re-assessed to determine the extent to which impacts could be reduced or appropriately managed. This iterative process ensured that the spatial strategy was refined in response to evidence, rather than assumptions, and that any harmful effects were addressed where possible. These mitigations are still expected to prioritise the vision as much as possible. For example, junction capacity increases should be designed to also deliver active travel segregation and/or public transport priority.*
- Future year Vision-Led Scenario (VLS) Scenario. The CS report indicates that the VLS comprises of the CDLP Local Plan growth with the refined transport intervention and mitigations contained in Package D. the Package D measures relevant to Fairford are:
  - Ampney Cruicis-Poulton-Fairford Active Travel Route; £4M – Critical (option ID Ac4)
  - Diversion of 77 through Ampney Crucis; £100K – Critical (option ID Ac6)
  - Quiet Lane Treatment on Unnamed Road between Oak Road and Fairford Road - £500K - Critical (option ID D10)
  - Fairford to Lechlade Active Travel Route; £800K – Essential (option ID Fa13)
  - Horcott Road Active Travel Route; £620K – Critical (option ID Fa6)
  - Increase frequency of Bus Service 76; £1M – Critical (option ID D6)

3.2 Model Results

3.2.1 CS provide an interactive map of the model outputs. The following table extracts information relevant to Fairford:

Table 3.1 - GC3M Model two-way Traffic Flows in Fairford

Location	Base			PSO			VLS		
	AM	IP	PM	AM	IP	PM	AM	IP	PM
A417 west of High Street	600	416	584	1360	754	1088	601	320	382
A417 east of High Street	396	261	368	763	295	525	103	28	32
A417 west of Hatherop Ln	703	539	697	840	609	754	367	240	275
A417 east of Hatherop Ln	705	540	696	Missing					
A417 east of Welford Rd	428	297	433	635	417	615	474	252	413
Welford Rd	58	45	71	234	105	195	329	142	295
Hatherop Rd north of village	20	10	21	13	11	25	12	6	17
Hatherop Rd village	9	3	5	4	0	9	1	0	1
Leafiled Rd	0	0	0	689	305	338	391	155	139
Park St	1	0	1	353	267	277	282	118	94
Mill Lane	0	0	0	0	0	0	0	0	0
Lower Croft	323	284	336	500	319	339	264	214	243
High Street	204	156	215	597	461	564	499	292	350
Coronation Street	28	14	29	35	39	73	35	11	48
Horcott Rd	24	33	21	153	30	71	177	109	219

Base Year Validation

3.2.2 A recent committee decision, dated 2th October 2026, available at the following website address: https://gloucestershire.moderngov.co.uk/documents/s120402/ICM%20Decision%20-%20Gloucestershire%20Strategic%20Transport%20Model%20Final.pdf acknowledges that the GC3M model is out of date. Cllr Roger Whyborn notes that:

> *Our current multi-modal Gloucestershire Strategic Transport Model is working with a 2019 (pre-Covid) base year, the update to our strategic model will align with National Highways' Regional Traffic Model (RTM3) update. A strategic transport model typically has a lifespan of 5-6yrs. GCC are currently working with a model that has come to the end of its useful lifespan and requires updating to a new 2026 base year.*

3.2.3 The above indicates that the model used to support CDC's latest Plan is no longer considered, by GCC, to be fit for the purpose.

3.2.4 GCC have already awarded contracts for extensive traffic surveying that will be used to build the new model. It seems probable that, by the time, the CDLP is reviewed by a Planning Inspectorate, the GC3M used in evidence will be officially superseded.

3.2.5 It is understood that the existing traffic congestion on the A417 leads to rat-running along Mill Lane and Welsh Way. The absence of Welsh Way and the lack of any traffic on Mill Lane severely compromises the base model (and future year models).

PSO Model Outputs

3.2.6 Notwithstanding the above, Table 3.1 predicts a sharp rise in traffic activity on all main arms of the A417 / High Street junction (note: Back Lane is not included in theGC3M model).

3.2.7 It is apparent that the GC3M model makes no allowance for the fact that the A417 passing High Street is just one lane wide. The model reports a capacity on the A417 of 2,654 vehicles per hour (1328 vehicles in each direction). This theoretical capacity figure would be typical of a two-way road measuring around 6.75m in width, not a two-way single-lane road.

3.2.8 A video of traffic travelling through the single lane section of the A417 is available at the following website address https://fairfordcommunityalliance.uk/watch/a417/ This video shows a one-minute snapshot of the road operating at capacity. 13 vehicles ae observed to pass along the A417. This indicates a saturation flow of around 780 vehicles per hour. A more detailed analysis would be required to derive a reliable saturation flow figure; nevertheless, it is clear that the GC3M models is highly inaccurate when it comes to the A417's capacity through Fairford.

3.2.9 The best type of traffic model for a complex road network is a micro-simulation model. In the absence of such a model the conclusion, based on the available information, is that peak-hour traffic flows along the A417 passing High Street in Fairford is already at or very near maximum capacity.

3.2.10 In practice, the predicted doubling of peak-hour traffic will most likely lead to long delays on the A417, increasing pollution levels resulting from waiting vehicles, frustrated drivers, and the likelihood of rat-running though residential streets or Mill Lane / Welsh Way.

3.2.11 This report considers the traffic modelling to be inadequate in predicting the impacts on the PSO scenario in and around the village of Fairford because it fails to take any account of a very conspicuous restriction on the A417.

VLS Model Outputs

3.2.12 It is unclear why a section of the A417 to the east of Hatherop Lane was removed from the PSO and VLS models. This would seem to negate the purpose of the model, which is to distribute traffic according to the available infrastructure.

3.2.13 Severing the A417 requires a manual adjustment to the model to allow for the existing through traffic. In the case of the VLS model, the A417 traffic to the west of Hatherop lane, are half or less those of the base model.

3.2.14 The VLS model predicts a substantial increase on traffic on Welford Road but this does not account for the traffic on the A417 to the east of Fairford Town that appears to be missing from the model.

3.2.15 Further losses of traffic occur as the A417 approaches High Street, from the east, until traffic flows are a small fraction of the validated base model (see Table 3.1 second row)

3.2.16 There is nothing obvious in the Package D measures that could result in such a substantial reduction in the vehicular traffic travelling through Fairford along the A417.

3.2.17 It appears that through traffic along the A417 is not properly accounted for within the VLS model.

3.2.18 This report concludes that the traffic modelling appears to exclude existing traffic demand travelling east - west along the A417 between the junctions with Hatherop Lane and Welford Road, in which case, the modelling is entirely unreliable.

4 Package D

4.1.1 Notwithstanding the above, the efficacy of Package D appears overstated.

4.1.2 No doubt, the bringing together of the existing settlements along the A417 with attractive non-car-focussed corridors, and a slightly enhanced bus service, could encourage some local travel by non-car modes. However, the region's major employment and services (retail, education etc) are too distant to expect substantial shifts to more sustainable travel modes; travel duration being a major consideration for many.

4.1.3 The delivery of Package D measures is questionable. In the decade since Helix produced the Transport Appraisal Report, a significant number of houses have been added to the western edge of Fairford, but the frequency of busses has reduced.

4.1.4 Furthermore, there appears to have been no significant improvements to the community infrastructure over the past decade despite a Community Infrastructure Levey presumably being applied to the developments occurring in Fairford since its introduction.

4.1.5 It seems more likely than not that the £7.02M will be hard to find from public funds while being impossible to justify again development impact mitigation.

4.1.6 This report considers the PSO Scenario to be the most likely outcome of the district's growth aspirations.

5 Impacts of Additional Traffic

5.1.1 Putting aside the issues with the traffic modelling, the effect of additional traffic traveling along the A417 through the pinch-point appears inevitable. Vehicles will experience lengthening delays that will lead to increased levels of exhaust fumes, and an increase in the likelihood of rat-running through residential streets or other alternative routes such as Mill Lane, Welsh Way which would require mitigation.

5.1.2 The restriction of traffic though Fairford can also be expected to lead to peak-spreading, whereby the town will experience peak-hour type traffic conditions beyond the traditional 08:00-09:00 and 17:00-18:00 periods.

5.1.3 While traffic congestion might, under some circumstances, be considered a justifiable means by which to encourage the uptake of more sustainable travel choices, the effects In Fairford are compounded by the architecture in which tall buildings may trap poisonous exhaust gasses leading to adverse health implications. This issue warrants specific consideration.

5.1.4 Moreover, the A417 is a significant long distance travel corridor with many journeys originating and/or terminating outside of the district. This includes the road's use as an HGV corridor. Measures contained in the VLS will not be relevant to these journeys.

6 Summary

6.1.1 Concern is raised over the validity of the traffic modelling supporting the CDLP insofar as it relates to Fairford.

6.1.2 The GC3M model appears to makes no allowance for the fact that the A417 passing High Street is just one lane wide. The model reports a capacity on the A417 of 2,654 vehicles two-way per hour. This theoretical capacity figure would be more typically of two-way roads measuring around 6.75m in width, not a 3.4m wide two-way single-lane road.

6.1.3 The Preferred Spatial Option (PSO) Scenario predicts traffic flows doubling (relative to the 2024 validated base model) at the point where the A417 narrows to a single lane.

6.1.4 Both the PSO and VLS (vision-Led Scenario) models have removed the section of the A417 between its junctions with Hatherop Lane and Welford Road. It is not clear why this was done.

6.1.5 Existing through traffic appears to have been removed from the VLS model and, possibly, the PSO model as a result of the above. If this is the case, the modelling must be considered invalid.

6.1.6 VLS scenario is premised on an estimated £7.02M investment in improvements to walk, cycle and bus facilities. It is unlikely that this degree of investment can be secured from developers through planning obligations on the premiss of reasonable impact mitigation measures. It is also considered to be unlikely that such large sums of money could be secured from public funds. It should also be reiterated that the lack of recognition of the issues with the narrowing of the A417 through Fairford means that there is no funded strategy to address the issues this presents.

6.1.7 The doubling of traffic, as set out in the PSO model, appears to be the most likely outcome. Given that traffic congestion is already known to occur at the point where the A417 becomes a single lane, this increase in traffic will, inevitably, lead to longer queues, a spreading of the peak-hour and an increase in air pollution caused by standing vehicles. The likelihood of rat-running through residential streets / country lanes may also result.

7 The Next Steps

7.1.1 Clarification should be sought on the whereabouts of existing through traffic in the future-year traffic models.

7.1.2 The effects of the district's growth aspirations on Fairford cannot be understood by using the GC3M model in its current form. It would be entirely reasonable to expect the restriction caused by the A417 narrowing to a single lane to be added to the future year model runs.

7.1.3 Air quality monitoring will assist in understanding whether, as has been suggested, the enclosed nature of the narrow section of the A417 may have the effect of trapping exhaust gasses and, thereby, pose a disproportionate impact on the health of those living and working along the narrow section of the A417.