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Teddington and Alstone Villages and the A46

Assessment by Gerald Kells

For the Teddington and Alstone A46 Advisory Group

Oct 2019

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## 1. Introduction

My name is Gerald Kells. I am a Campaign and Policy Advisor with a particular interest in Transport, Housing and Strategic Development. I have worked with a number of environmental and community groups.

I was a Regional Policy Officer for the Campaign to Protect Rural England for ten years. I was a member of the West Midlands Regional Assembly, where I sat on the Regional Planning Partnership and was vice-chair of the Regional Transport Partnership.

I have appeared at Local Plan Inquiries and Planning and Road Inquiries, including, for example, the M4 in Gwent.

I was asked by the Teddington and Alstone A46 Advisory Group (TAAG)<sup>1</sup> to review the proposals for a new or upgraded A46 link from M5 junction 9 past Ashchurch, and for additional proposed improvements past Beckford, including options relating to the Teddington Hands Junction.

I was specifically asked to consider this in the context of development proposals in and around Ashchurch, as well as other wider transport interventions which might be implemented in that area.

I was also asked to suggest future actions TAAG might undertake to promote their concerns.

I did not do a site visit as I undertook a site visit to Ashchurch on 27 March 2019 as part of previous work, which included travelling the relevant sections of the A46 and the various roads around Ashchurch, as well as visiting the railway station.

Of particular concern to TAAG is the impact future road proposals might have on Teddington, Alstone and the local environment and how these could be avoided, reduced or mitigated.

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<sup>1</sup> <http://taagroup.co.uk/>



Fig 1. A46 through Ashchurch to Beckford

TAAG set out their concerns in an initial report in July 2018. They were particularly concerned that:

- any bridging work which allowed separation of local traffic from through traffic would heighten noise and pollution concerns and introduces additional concerns of negative visual impact and light pollution.
- dualling of the A46 south of Little Beckford, linked to a new by-pass to the south of the current Teddington Hand Roundabout, would have a significant detrimental impact on Teddington and Alstone.
- there could be a detrimental impact from flooding south of the Teddington Hands Junction, severance of the existing garage, stores and public house at the Teddington Hands Junction, as well as adverse impacts on the Cotswold Area of Outstanding Natural Beauty (AONB), which is close to the villages.
- new road infrastructure could lead to secondary developments which would directly encroach on their villages and ultimately erode its character. In this regard they were particularly worried about piecemeal development.

I was asked to review this position and provide independent recommendations. To do that this report addresses:

- the strategic issues behind the A46 proposals and
- more detailed implications for Teddington and Alstone.

I go on to suggest what strategic options TAAG might want considered to meet its concerns. My key recommendations are set out below.

## 2. My Recommendations

In seeking to achieve its goals my recommendation would be that TAAG should:

- a. raise concerns about the sustainability credentials of the Ashchurch Masterplan.
- b. oppose the Midlands Connect and Western Gateway concept of an A46 Expressway and instead seek holistic solutions to the A46 issues in Ashchurch.
- c. criticise the lack of clear public transport improvements proposed for Ashchurch.
- d. argue for all alternative options to addressing the issues on the A46 to be considered, and that any road improvements should be carefully targeted at specific, local problems.
- e. promote options which either utilise or remodel the current Teddington Hands Junction.
- f. argue against prioritisation of improvements beyond the Teddington Hands Junction or for the need for an Expressway to Evesham.
- g. seek clarity on how any proposals will be progressed, potentially by Midlands Connect, Western Gateway, Highways England and Gloucestershire County Council
- h. seek further expert help to clarify the environmental and landscape impacts.
- i. coordinate where possible with relevant sympathetic bodies such as the Campaign to Protect Rural England (CPRE) and the Cotswold AONB Board.
- j. ensure that local councillors, MP, the community and media are aware of their concerns.

In particular I would stress that, while my own analysis allows that some additional highway capacity may be required to resolve problems in Ashchurch, I do not consider that the level of intervention proposed by Midlands Connect, that is to say a dual carriageway Expressway with Grade Separated Junctions specifically aimed to redirect additional traffic from the Midlands Motorway Box, is likely to be needed and would, in fact, generate its own traffic problems.

At present there is no adopted route, but any scheme would need detailed transport design and this is something TAAG should seek to influence as part of any assessment of future options.

I have not commented on a specific design layout for the Teddington Hands Junction. It is currently a single roundabout, but I do not rule in or out alternative options, for example a dumb-bell arrangement, which is why I generically refer to it as a 'Junction'.

There are, furthermore, a number of potential options as to who would progress any road improvements relating to the A46 past Ashchurch, which I consider later, and TAAG may wish to seek clarity on who will be leading future work.

Further technical work would also be needed to assess any detailed environmental impacts.

### 3. Strategic Background to the Proposals

Plans for improvements to the A46 through Ashchurch go back to the 1990s, but have more recently been linked to wider proposals by Midlands Connect, set out in their A46 Enhanced Strategic Case<sup>2</sup> (Nov 2018) to upgrade the A46 from the M5 to Lincolnshire, and, most relevantly, in Worcestershire and Warwickshire.

The case for improvements to the Ashchurch section of the A46 has since been adopted by the Western Gateway Sub-National Transport Body as part of their Strategic Transport Corridors approach<sup>3</sup>.

Improvements are also linked to the Ashchurch Masterplan<sup>4</sup> which is being produced as part of the Joint Core Strategy (JCS) Review for Gloucester City Council, Cheltenham Borough Council and Tewkesbury Borough Council<sup>5</sup>.

Initial ‘concept’ proposals for the Masterplan were the subject of a bid to the Ministry of Housing, Communities and Local Government (MHCLG) for Garden Town status for Tewkesbury and Ashchurch: the bid was approved on 25 March 2019 and around £750,000 allocated to fund further development of the Plan.

#### 2.1 Joint Core Strategy

The Ashchurch Masterplan is based on the assumptions of housing and employment land requirements in the JCS Review.

I am not in a position to comment on either the housing or employment supply and need calculation in the JCS (including assumptions about windfalls and density, for example) but, even if they are correct, I would have severe reservations about a strategy of locating a large amount of development in the Ashchurch area.

The Local Transport Plan (LTP, 2011)<sup>6</sup> explains that, while most of the business trips in the Tewkesbury area are generated in that area, the majority of commuting trips within Gloucestershire are to Gloucester or Cheltenham. It can be seen from the table reproduced below that this is not a reciprocal arrangement and Tewkesbury has low self-containment.

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<sup>2</sup> <https://www.midlandsconnect.uk/publications/a46-corridor-study-stage-one-enhanced-strategic-case/>

<https://www.midlandsconnect.uk/publications/a46-stage-one-corridor-study-summary-report/>

<sup>3</sup> <https://www.gloucestershire.gov.uk/media/2090917/wg-reb-part-2-strategic-corridors.pdf>

<sup>4</sup> <https://www.tewkesbury.gov.uk/news/ashchurchmasterplan>

<sup>5</sup> <https://www.jointcorestrategy.org/joint-core-strategy-review>

<sup>6</sup> <https://www.gloucestershire.gov.uk/media/2216/7-ltp-tewkesbury-cps-nov-2017.pdf>

[https://www.gloucestershire.gov.uk/media/3041/ltp\\_evidence\\_base\\_review\\_-\\_supporting\\_document-61666.pdf](https://www.gloucestershire.gov.uk/media/3041/ltp_evidence_base_review_-_supporting_document-61666.pdf)

[https://www.gloucestershire.gov.uk/media/3040/ltp\\_evidence\\_base\\_review\\_-\\_main\\_document-61665.pdf](https://www.gloucestershire.gov.uk/media/3040/ltp_evidence_base_review_-_main_document-61665.pdf)

Table 4.2 Overview of key District Level Travel to Work Movements (where the resident population travel to)<sup>2</sup>

Destination — Origin ↓	Cheltenham	Cotswold	Forest of Dean	Gloucester	Stroud	Tewkesbury
Cheltenham	71.1%	3.1%	-	9.3%	-	6.7%
Cotswold	-	71.4%	-	-	-	-
Forest of Dean	-	-	64.0%	15.0%	-	-
Gloucester	12.9%	-	-	66.4%	3.5%	6.3%
Stroud	4.2%	3.0%	-	11.0%	66.9%	-
Tewkesbury	35.8%	-	-	17.5%	-	37.7%

Fig 2. From LTP background material

The Tewkesbury appendix to the LTP explains that there is also considerable commuting into the West Midlands, so that 40% of all work travel from the Tewkesbury area is greater than 10 miles.

It, therefore, seems to me that there is a serious risk that Gloucestershire’s current development strategy will generate increases in commuting out of Tewkesbury and Ashchurch, as well as other trips, adding to congestion on roads and increasing carbon emissions.

One way the relevant Councils could seek to reduce this problem is by maximising opportunities for brownfield development within Gloucester and Cheltenham.

There may be other spatial options that could be adopted which I have not considered, but I would recommend further analysis of the underlying basis for the current approach, something TAAG may wish to raise through the JCS process.

### 3.2 Ashchurch Masterplan

Following on from the JCS Strategy, the Ashchurch Masterplan seeks to increase dramatically the housing and employment provision in the Ashchurch area. This includes new industrial estates and housing south of the existing A46 as well as new housing north of the current residential estates beyond the Tewkesbury and Ashchurch industrial estates.

The Ministry of Defence (MoD) estate on the east side of Ashchurch would also be released for housing. That was expected to happen early in the JCS plan period but I understand has been delayed by 10 years by the MoD. Further delay cannot be ruled out.

The Masterplan seeks to create a ‘Garden Community’ of some 8,010 homes according to its own tables. As noted above, the Government has since announced support for the proposals although that announcement refers to 10,195 homes.

The Masterplan also shows ‘quiet roads’ replacing existing footpaths around the area and a new distributor road which bisects the southern development area north of Fiddington.

The Masterplan assumes the existing A46 would then be downgraded from a trunk road and serve a local purpose. A new local centre and village green would be created in the centre of Ashchurch.

This diagram shows the complete Concept Masterplan.

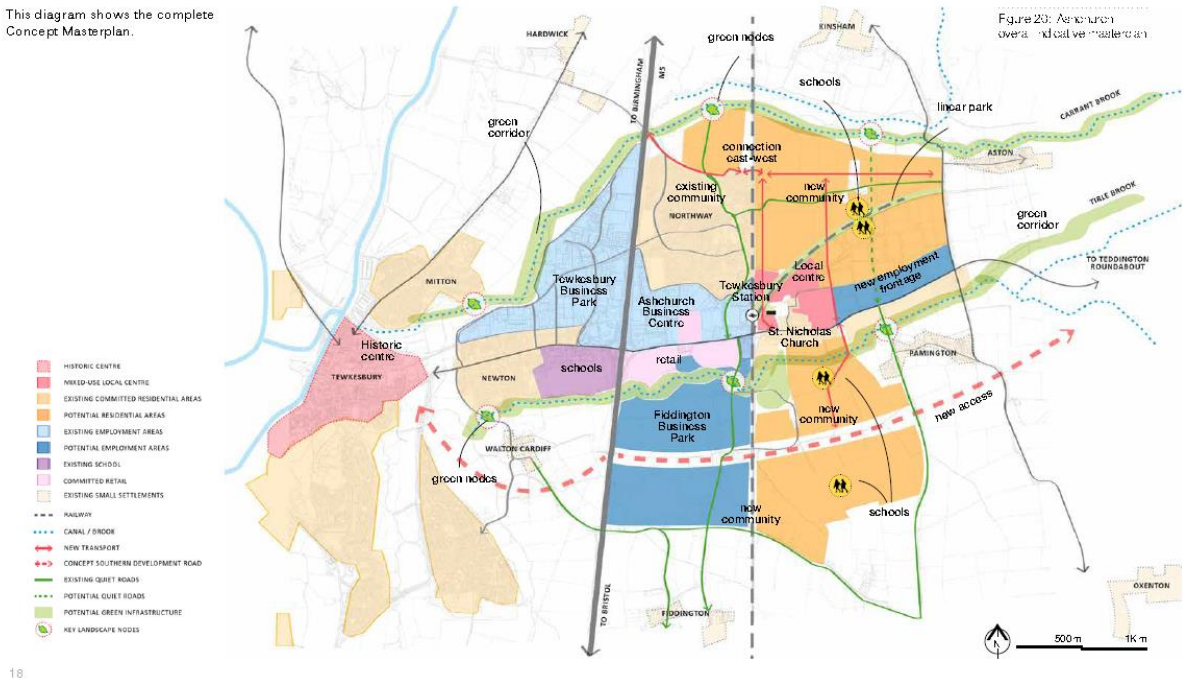


Fig 3. Ashchurch Masterplan

There are also some new schools proposed. There are no assumptions about other facilities such as medical surgeries.

A not very ambitious density of 30 dwellings per hectare (dph) is proposed for the housing which is deemed to be midway between the densities currently in Ashchurch which vary from 24-45 dph.

There is also an assumption that prioritising walking and cycling in the new settlement would lead to an uptake of sustainable travel.

I have serious doubts about the realism of some of these idealistic assumptions and the prospect of creating a truly sustainable community.

Ashchurch, as it stands, is made up of industrial estates, with lorries accessing them from the A46, and suburbs to the north which are isolated and depend on a circular distributor road, where traffic calming has been implemented, presumably to reduce speeding.

There is one primary school. There are virtually no local shops apart from a co-operative store and now a proposed Superstore on the A46.

Ashchurch is split off from the main settlement of Tewkesbury by the M5. In my view, new large-scale housing at Ashchurch is likely to draw in more commuters to

the major Gloucestershire towns and to the West Midlands, and, because of limited alternatives, increase their car dependency.

Whatever is done, the A46 will remain a significant deterrent to movement between any new development in the south and the north side of Ashchurch, including the proposed new centre.

The presence of large industrial sites attracting large HGVs, along with other local traffic, will mean the heart of Ashchurch is likely to remain a largely functional rather than attractive space.

There is currently no town centre to Ashchurch and it is hard to imagine how such a centre could be created. There may be opportunity to link the railway station with new small-scale retail provision but that would rely on significant changes to the level of rail services using the station there. I suspect shops there would struggle to be viable.

In fact, for anyone living in these new estates, there is likely to remain limited access to facilities (apart from to primary schools). Most will require them to cross a major road. This will only be made worse if a new dual carriageway distributor road were to bisect housing south of the current A46.

There may be some improvement in terms of a new secondary school, as the existing schools are on the other side of the M5, but I am dubious about other facilities.

I consider the most likely outcome is that Ashchurch would expand primarily as a commuter suburb for Tewkesbury and also for Gloucester and Cheltenham.

In terms of public transport, there are limited rail services to and from Ashchurch for Tewkesbury station. The location of the station is not particularly appealing. I understand there is an aspiration for an early improvement with an hourly service linking the main towns of Gloucester, Cheltenham and Worcester all of which would call at Ashchurch and which TAAG should support.

Bus services to Tewkesbury and Cheltenham are limited, particularly in the evenings and at weekends.

There are only limited facilities within walking distance and the business areas on the A46 do not make the centre particularly appealing for pedestrians.

There are no cycle ways and the A46 itself would be an unattractive option. Accessing Tewkesbury that way would require negotiating the motorway junction. The alternative two routes over the motorway are circuitous but more attractive.

The Masterplan suggests some new walking opportunities within the development but also seems to envisage current countryside footpaths becoming local roads.

It does not consider how improved bus access could be achieved across the expanded Ashchurch settlement and current service levels improved, whether any further



additional rail services could be provided and options for additional bus priority measures.

So, while there may be opportunities for addressing public transport needs, these, in my view, are unlikely to change the fundamental character of the area.

The realism of the aspiration of the Masterplan has been brought further into question by the decision by Tewkesbury Planning Committee in July 2019 to grant planning permission for 90 homes and a residential care home on land South of the A46 which would have been part of Phase 3 of the Masterplan (Planning Reference: 18/00043/OUT).

The permission was granted following a High Court ruling that Tewkesbury Borough Council did not have a five-year housing land supply.

The SF Planning website shows an outline of the proposals, which appears to consist of a low-density housing estate which does not contribute any additional facilities, apart from a playing field, (although it does leave space for a community building). The site has a single entrance onto the A46 and, although it includes cycle and pedestrian routes, adopts a cul-de-sac layout likely to encourage car use<sup>7</sup>.

The further work which is being pursued by Tewkesbury Borough Council on the Masterplan may shed further light on the problems I identify and may offer some solutions, but I remain sceptical about whether a resolution can be found.

### *3.3 Midlands Connect*

The other (and not necessarily complimentary) driver for upgrading the A46 through Ashchurch is the aspiration to create an A46 Expressway from the M5 as far as Lincolnshire, that is to say, a road of dual-carriageway standard with grade separated junctions, but without the more onerous requirements of a motorway.

This is being championed by Midlands Connect, which was established in 2015 as an arm of the Midlands Engine whose role is to promote growth across the Midlands and is seeking to become a Sub-National Transport Body. Its board is made up of Local Government and Business representatives.

The remit of Midlands Connect is, however, narrow, in that they only consider inter-urban connections by road and rail. It developed a strategy called 'Our Routes for Growth' (July 2018)<sup>8</sup> which promoted a number of large scale inter-urban road schemes, in particular proposals around the Midlands Motorway Hub (largely the trunk roads in and around the West Midlands Conurbation) and the proposal for work to develop an A46 corridor.

The concept of Expressways has gained ground across the Country. For example, an Oxford-Cambridge Expressway is being promoted to link the two University Cities.

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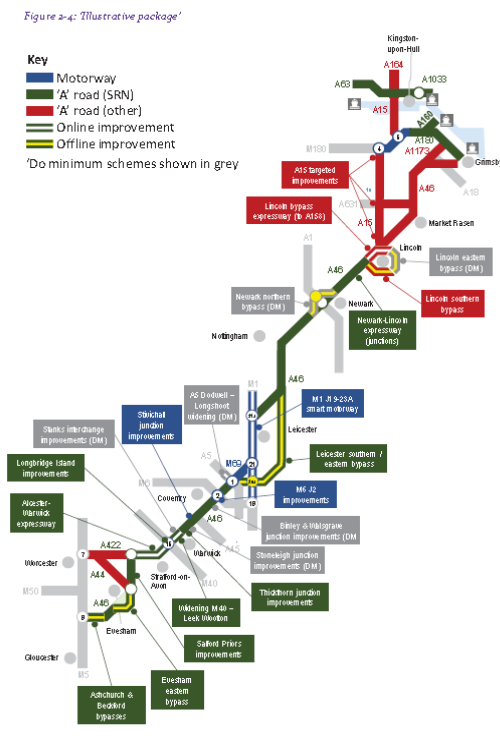
<sup>7</sup> <https://www.sfplanning.co.uk/the-beginnings-of-ashchurch-garden-town/>

<sup>8</sup> <https://www.midlandsconnect.uk/publications/our-routes-to-growth-july-2018/>

Their A46 corridor proposals were further developed through a study which led to an Enhanced Business Case. That was published in October 2018, although the transport assumptions and modelling remained largely opaque at that time.

Further Freedom of Information requests have led to the release of, among other things, the Interim Report of the Study, which includes some more details of how they reached their conclusions.

Their first conclusion is that the corridor is an important economic corridor. They reach this conclusion based on the industries along the corridor, but not it appears, on any serious analysis of how reliant those businesses are on that corridor in particular. It is noticeable, for example, that 95.7% of the traffic going north from the M5 on the A46 is not going further than the M40.



whether any benefits would be eroded by additional congestion generated at the end or beginning of those journeys by the extra traffic on local roads.

There are a number of difficulties with reaching such a conclusion.

The first is that their analysis relies on increases in traffic based on DfT national forecasts which have consistently over-estimated traffic growth as set out in Fig 5. The result of applying such over-estimation at a scheme level, is to create a false impression of future congestion and, therefore, future scheme benefits

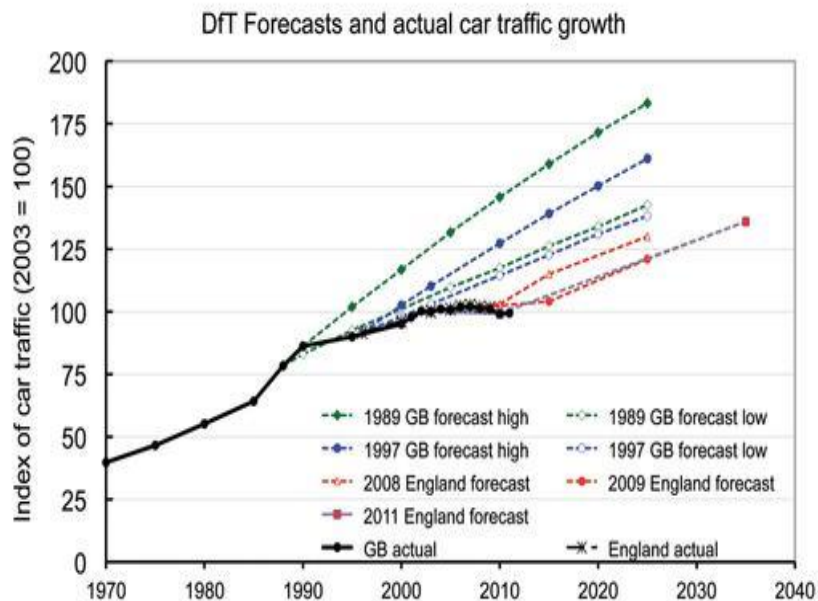


Fig 5. DfT projections compared to actual traffic growth

The second is that their analysis takes no account of the generation of new traffic resulting from additional road capacity. The modelling they undertook assumed a fixed amount of traffic whether or not road improvements were undertaken.

Independent research commissioned by CPRE and published in 2017 in ‘The Impact of Road Building in England’<sup>10</sup> analysed the impact of 13 road schemes, based on post-operative data from Highways England. Their analysis confirmed earlier studies which concluded that new inter-urban road capacity increases traffic beyond normal growth.

This is because such improvements allow people to travel further and, over time, influence their choice of where to live and work, as well as the development choices for industry, leisure and retail, all of which encourage longer journeys.

The CPRE Report concluded that:

<sup>10</sup> <https://www.cpre.org.uk/resources/transport/roads/item/4542-the-impact-of-road-projects-in-england>

*Evidence from 13 road schemes (nine randomly selected from all available POPEs, across all English regions, and the four case study schemes) is consistent with the conclusion that road schemes generate traffic. Average increases over the short run (3-7 years; seven schemes) were +7%. Average increases over the long run (8-20 years; six schemes) were +47%. (Page 6)*

The third problem with Midlands Connect's analysis is that they take no responsibility for the impact of traffic leaving their network, both new and existing. New road building means congestion can become more concentrated (and intractable) on local roads, particularly in urban conurbations.

All these problems are compounded, since the economic benefits that they then create are largely based on an accumulation of time-savings resulting from traffic modelling, some of little real significance.

Since those time-savings are likely to be over-estimated and eroded, both on the A46 itself and on other roads where capacity is modelled to be relieved (in this case, roads like the M40) as well as on the local network, this assumption lacks rigour.

The CPRE Report went on to consider issues around the over-reliance on time-savings and reliability on scheme justification and says that:

*Our overall conclusion is, therefore, that road schemes may deliver more reliable journey times in the short term (i.e. one year), on the road scheme itself. But there is as yet no compelling evidence that they deliver more reliable journey times on the road scheme in the longer term (five years or more), and if road schemes are associated with more car-based development and consequent traffic generation, there is a risk that these benefits will be rapidly eroded. In addition, traffic generation associated with road schemes may lead to less reliable journeys on the wider road network, as the additional traffic arising from car-dependent development associated with the road scheme will cause traffic levels on nearby roads to increase. (Page 50)*

Despite the risk of such analytical flaws, Midlands Connect, along with Local Authority partners and Highways England, are continuing to promote the A46 Expressway concept. They are currently developing further work on options for four areas, which I understand would equate to Ashchurch and Evesham, Warwickshire, Leicestershire and Lincolnshire.

That work is anticipated to be published in the Autumn of 2019, but will almost certainly progress on the basis that the general case is established.

### 3.4 Western Gateway

The work of Midlands Connect has been adopted by the newer Western Gateway Alliance<sup>11</sup> which includes a number of West of England local authorities, most northerly of which is Gloucestershire County Council.

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<sup>11</sup> <https://www.gloucestershire.gov.uk/council-and-democracy/joint-ventures/western-gateway-sub-national-transport-body/>

In their initial assessment of strategic transport needs, they have adopted a corridor approach<sup>12</sup> and identified 15 strategic corridors, which includes the M5 itself and the A46 corridor through Ashchurch. They identify the upgrade of Junction 9, the Ashchurch Bypass and an Expressway Standard A46 as ‘deficits’ i.e. shortfalls in access. They assume the A46 upgrade will bring benefits, including the delivery of the Ashchurch Masterplan and relieving capacity issues on the Midlands Motorway Box onto the A46.

They included a diagram based on 1993 DfT plans but, I understand, this is just a placeholder pending more detailed design and business case work.

Figure 14.4 – M5 Junction 9 & A46 (Ashchurch) LLM scheme (1993 alignment)



A350 Strategic Growth Corridor

Fig 6. Map from Western Gateway Alliance Corridor Study

They claim various numerical benefits including productivity increases measured by Gross Value Added (GVA) of £252 million over 10 years. The majority of these benefits are likely to be generated by assumed time-savings to traffic, which I addressed in the section above, but they also include claims of local regeneration benefits.

As with time savings, development gains are also liable to be exaggerated.

This is firstly because developments are often claimed to result from road-building which would have occurred anyway and secondly because benefits in one area may only be diverted from other areas.

This was another issue examined in the CPRE Report examined for existing schemes and came to the following conclusion:

<sup>12</sup> <https://www.gloucestershire.gov.uk/media/2090917/wg-reb-part-2-strategic-corridors.pdf>

*Of 25 road schemes justified on the basis that they would benefit the local economy, only five had any evidence of any economic effects. Even for these five, the economic effects may have arisen from changes incidental to the road scheme, or involved development in an inappropriate location, or involved changes that were as likely to suck money out of the local area as to bring it in. (Page 6)*

In the case of the A46 there may be some diversion to Ashchurch from other parts of Gloucestershire but a new Expressway might also divert investment out of the county altogether.

Development gain accruing on the Midlands Motorway Box, for example, would be more likely to benefit the West Midlands. Moreover, if traffic transfers from the Motorway Box to the A46, it is likely to undermine any local benefits in facilitating development. So disbenefits may also accrue in the Ashchurch area from traffic diverting to that route.

The analysis in the Western Gateway corridor assessment work feeds into a prioritisation process for submission of Major Road Network (MRN) and Large Local Major (LLM) Schemes<sup>13</sup>. The A46 corridor is one of two which is identified as priorities in the LLM category and has been included in a submission by Western Gateway for development in the Regional Investment Strategy 2 (RIS2) period, which covers 2020-2025.

The cost of a dual-carriageway from the Teddington Hands Junction to the M5 is estimated as costing £170 - £180 million although they also refer to similar schemes which cost £200-£250 m (Para 14.21)

### *3.5 Road Investment Strategy (RIS2)*

The Road Investment Strategy is the mechanism by which Government prioritises Road Fund spending. This includes money spent on the Strategic Road Network (SRN) (Highways England managed trunk roads,) and also now on the MRN and LLM managed by local authorities.

Sub-National Transport Bodies were asked to submit schemes for RIS2 (2020-2025) and both Midlands Connect and Western Gateway have made submissions on the MRN and LLM. Midlands Connect has submitted 11 schemes<sup>14</sup> and Western Gateway 9 (including the A46 in Ashchurch). These are competitive bids for funding so there is no guarantee money will be granted.

In May Midlands Connect also published 'Midlands Connect and RIS2: Turning evidence into investment'<sup>15</sup> This sets out their 10 road projects on the SRN for delivery in the current Road Investment Strategy (RIS1), along with 10 schemes they hope will be delivered in RIS2 (2020-2025) and 4 corridors which Midlands Connect are promoting for endorsement, including the full A46 corridor.

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<sup>13</sup> <https://www.gloucestershire.gov.uk/media/2090918/wg-reb-part-3-mrn-llm-priorities.pdf>

<sup>14</sup> [major-road-network-priority-scheme-submission-summary-report-summer-2019.pdf](https://www.gloucestershire.gov.uk/media/2090918/major-road-network-priority-scheme-submission-summary-report-summer-2019.pdf)

<sup>15</sup> <https://www.midlandsconnect.uk/publications/ris2-priorities/>

In terms of the A46 they are specifically promoting two schemes, the A46 Coventry Junction Improvements in RIS1 and the Newark Northern Bypass, in RIS2 but no other controversial schemes, such as the Leicester Eastern Bypass.

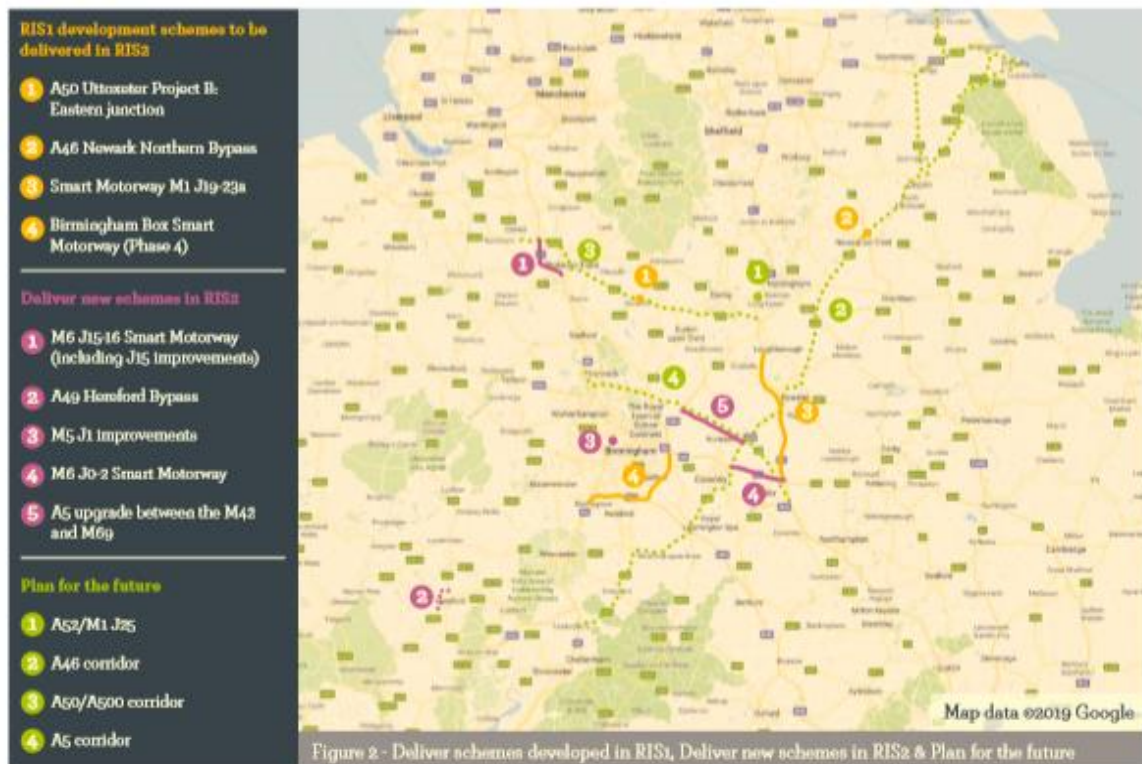


Fig 7. From Midlands Connect RIS2 Submission

Decisions on RIS2 are expected later in 2019 but it should be noted there are 4 major corridor studies currently being undertaken by Highways England<sup>16</sup> to inform funding and these are likely to recommend some expensive schemes. These studies do not include the A46 which suggests it is not a Highways England priority at a national level.

That being the case, we will have to see whether the A46 corridor is formally endorsed beyond those two schemes, and to what degree, if it is, it is prioritised, in particular what resources will be set aside for further route development.

It is also worth noting that the Western Gateway submission relates specifically to the Major Road Network, and the scheme round Ashchurch is identified as a Large Local Major Scheme.

That category, according to the Government's Funding Guidance,<sup>17</sup> is designed for: *'the small number of exceptionally large local highway authority transport schemes that could not be funded through the normal routes, such as Local Growth Fund or*

<sup>16</sup><https://www.gov.uk/government/collections/road-investment-strategy-post-2020>

<sup>17</sup>

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/765680/mrn-investment-planning-guidance.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/765680/mrn-investment-planning-guidance.pdf)

*other devolved allocations.*' (para 7.2) and, while their Appendix 1 acknowledges that this may include schemes which partially fall on the Strategic Road Network, its purpose does not appear to be to fund wholly SRN schemes.

Given that the A46 is a trunk road through Ashchurch and, if it were detrunked, any replacement would need to become part of the Trunk Road Network it would seem that funding from the MRN pot may not be appropriate. Something TAAG may wish to seek further clarity on from Western Gateway who have made the bid.



## 4. Detailed Route

### 4.1 A46 from the M5 to Beckford

The current line of the A46 through Ashchurch runs from the M5 Junction 9 to the Teddington Hands Roundabout. It is a mixture of mainly single carriageway road with several turns off, as well as widening at some junctions.

There are three traffic lighted junctions in Ashchurch as well as two signalised pedestrian crossings. There are other road entrances, as well as access to businesses, including a garage and the MoD site. To the north are two industrial estates, as well as the Ashchurch housing estates.

South of the road, development is underway on a new housing site which is close up to the edge of the road and there are other properties along the line of the road. The now committed development promoted by SF Planning would add more development South of the A46.

Beyond Ashchurch the road is still single carriageway but with a wide verge to the north which would allow for widening as far as the Teddington Hands Junction. Beyond Teddington it reverts to single carriageway road, which continues as far as the outskirts of Evesham.

At Beckford the A46 splits Beckford itself from Lower Beckford. There are turnings off at Back Road and Station Road and direct access to a number of properties and residential side roads. From there the A46 continues through the Cotswold AONB past Beckford Road and leaves the AONB at another Back Lane.

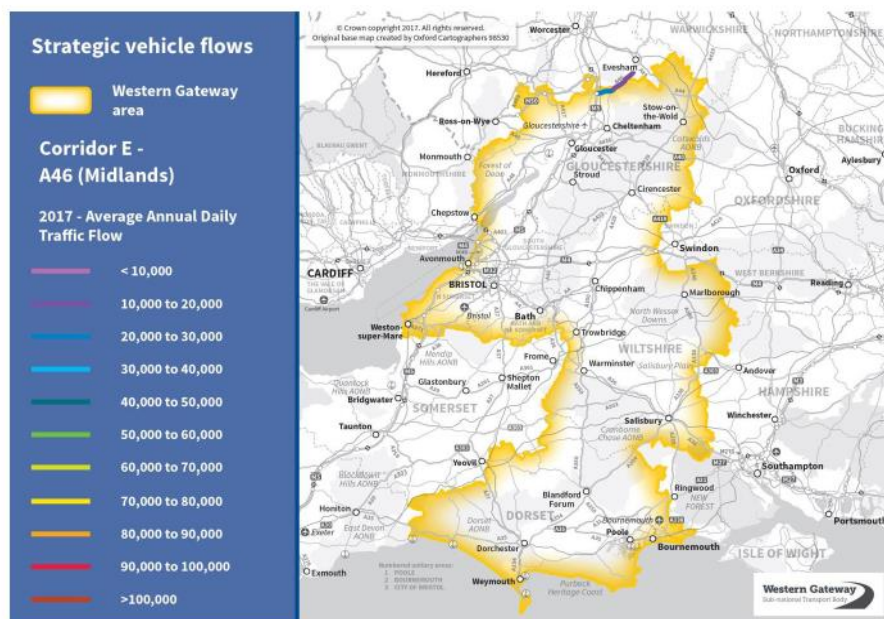


Fig 8. Map from Western Gateway Alliance Corridor Study





Location (More detail and other years on website)	A46 Count Point (2018) <sup>18</sup>	All Vehicles (2-way AADT)	LGV	HGV
	17100 (Into Tewkesbury)	16943	2467	744
	90334* (Ashchurch) (99320 - 2017)	19899 (20375)	2994 (3256)	1267 (1864)
	73531 (Teddington Hands)	17945	2381	1382
	99321 (After Beckford Road)	17945	2318	1382

Fig 9. Count Point Traffic on A46

The A46 carries between 17,000 and 20,000 vehicles a day on most of these sections (2018 figures), of which some 3,000 are LGVs and 1267 are HGVs at the centre of Ashchurch.

The 2017 and 2016 figures for HGVs in Ashchurch are significantly higher. The more detailed tables show a reduction in 5-6-wheel artics between a high in 2016 and 2018 of a third from 1074 to 656. I have not been able to ascertain why this is, whether it results from traffic work or changes in specific logistics operations, but it may have influenced earlier assessment work.

The Western Gateway Corridor Study, for example, identifies the section in Ashchurch as carrying between 20,000 and 30,000 vehicles (Fig 8), but it should be noted from the actual traffic counts that the Ashchurch section was at the very

<sup>18</sup> <http://www.dft.gov.uk/traffic-counts/area/regions/South+West/local-authorities/Gloucestershire>

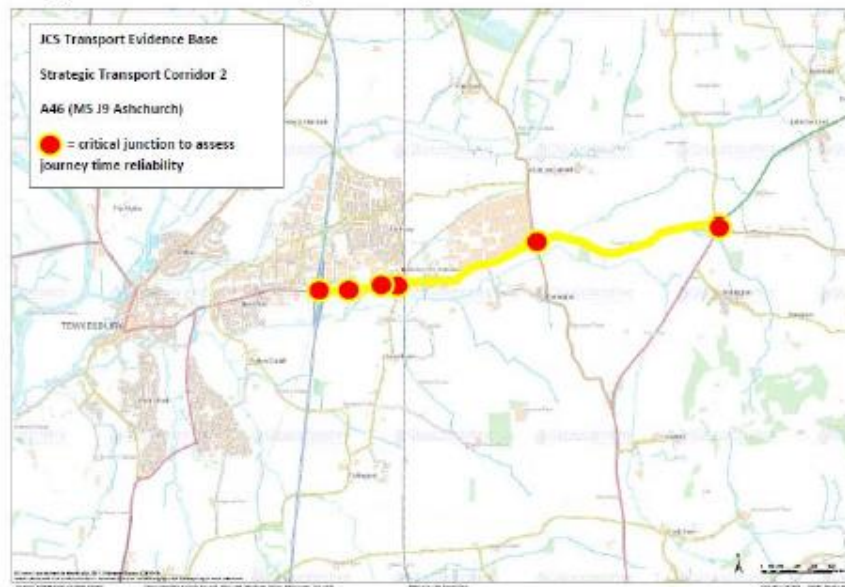
bottom of that range for 2017 and below it for 2018. The section beyond Ashchurch they show correctly as carrying between 10,000 and 20,000 vehicles. (Fig 9)

It is not possible to determine from these figures how much traffic is through and local traffic, although one would expect the majority to be local. In terms of HGV, although the numbers are similar on different sections, one would expect that a significant percentage of HGV traffic is accessing the sites in Ashchurch.

While total traffic is lower than many other sections of the A46 between the M5 and Lincolnshire, this section is also a narrower road. I do not have peak time traffic figures, but I would expect them to exceed the capacity of the road.

Congestion is likely to be exacerbated by the urban and industrial component of the traffic in Ashchurch, including HGV turning movements. I understand from local residents that these can be a significant cause of delay.

Figure 37 - Corridor 2 – critical junctions



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Figure 38 – Corridor 2 Ratios of Flow to Capacity – DN and DM

Junction Name	Ratios of Flow to Capacity			
	AM Peak		PM Peak	
	Do Nothing	Do Minimum	Do Nothing	Do Minimum
A 438 / A 46 Rbt (M5 J9)	96.9%	111.9%	101.8%	101.3%
A 46 Ashchurch Rd / Alexandra Way	104.0%	129.5%	469.7%	497.3%
A 46 Ashchurch Rd / Northway Ln	99.9%	87.7%	78.9%	84.8%
A 46 Ashchurch Rd / Fiddington Lane	78.5%	115.1%	102.7%	114.5%
A 46 Ashchurch Rd / B4079 Aston Cross	101.3%	105.4%	103.9%	106.9%
A 46 Ashchurch Rd / A 435 Teddington Hands Rbt	60.1%	69.0%	56.3%	59.3%

Fig 10. Ratios of Flow to Capacity at Ashchurch Junctions from JCS Transport Evidence

The Joint Core Strategy Transport Evidence Base document (2017) includes analysis of the current Rate to Flow Capacity at the junctions, that is to say whether they are likely to suffer delays. This shows congestion at many of the junctions.

As well as promoting a new eastern road on the line of the 1993 Highways England proposals, the JCS Evidence Base (Para 6.3.5) includes in its suggested actions upgrading the signals to optimise signal timings along existing alignment and replacing the Railway Level Crossing with a new bridge linking Grange Road with Hardwicke Bank Road to improve alternative access to the north of A46.

These interventions result all together in flow ratios which are in most cases below 100% but still often in the high 80%-90%. This would still be likely to lead to congestion and would be susceptible to being undermined if generated traffic was included.

It is tempting to suggest that signalling of the junctions should be undertaken first to see what benefits would accrue.

However, the problem would be that, while this might improve traffic speed at individual junctions, the risk would be that more traffic would arrive at either end of the system at the same time, particularly at peak times, which could increase traffic congestion, most particularly at Junction 9 of the M5 and the Teddington Hands Roundabout which could lead to breakdown of flow and perversely increase delay.

CrashMap 5 Year (2014-2018)	Total Accidents	Serious	Fatal
A46 Back Lane to Beckford Road	7	2	1
Back Lane	3	1	
A46 Teddington Hands to Back Lane	2	1	
Teddington Hands	3 (All by Crashmore Lane turn off)	1	
A46 Teddington Hands to B4079	3		
B4079 Junction	3		
A46 B4079 to Ashchurch	3		
A46 (in Ashchurch)	8	2	1 (Near Alexandra Way Junction)
M5 Slip Road to A46	1		

Fig 11. CrashMap 5 Year Data (2014-2018)

I used CrashMap<sup>19</sup> to look at accident figures over the last five years. There are some collisions, but only one fatal collision. Noticeably there seems to be a cluster of minor collisions at the B4079 junction and at one point on the Teddington Hands Roundabout.

Looking at 20-year figures (although these can be coloured by road improvements and other development changes) confirms clustering of accidents at the junctions. However, both time periods suggest fatal crashes are more of an issue on the straight section of the A435 from Teddington Hands to the B4079.

There were also some accidents on the curving section of the B4079 from the A435 to the A46 but these were less likely to be serious, presumably because of slower and more cautious driving behaviour when navigating the road.

Further work by TAAG would benefit from more detailed traffic analysis (i.e. a.m. and p.m. peak traffic levels, levels of turning movements at junctions and percentage of local traffic (both for cars and lorries). These might be something that can be obtained from Highways England, or from further examination of recent planning application modelling, but, overall, it does not seem practical to create a dual carriageway on the existing A46 through Ashchurch.

It would become even less so as further development to the South abuts the road. It could also be seen as undesirable if the Masterplan goes ahead, as it would further divide Ashchurch and increase car dependency.

Beyond Ashchurch, on-line widening to dual carriageway standard would be feasible but unless one can deal with the issues through Ashchurch, it is hard to see how that would resolve the traffic problems on the road.

Widening beyond Teddington Hands would also be possible but would increase severage between Beckford and Little Beckford as it passed through the narrow gap at Back Lane. A bypass of Beckford would also be possible and could reduce severage but would impact more on the AONB.

So, while I generally question whether large-scale road building is a solution to congestion, in this case, a less intrusive road building solution than that being contemplated by Midlands Connect and Western Gateway may need to be considered.

#### *4.2 Existing A46 Relief Road Proposals*

Proposals for a dual carriageway relief road around Ashchurch were first muted in 1993 and a consultation was undertaken by the Department for Transport. That included several route options which would then link into a bypass of Evesham.

A particular issue remains the assumption that a route would go South of Little Beckford, (so as to reduce its severance with Beckford itself).

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<sup>19</sup> <https://www.crashmap.co.uk/>

Two different options were pursued in 1993 at the Teddington Hands Junction, the Brown Route to the North and the Grey Route to the South.

Beyond Teddington Hands, as the A46 enters Worcestershire, there are further environmental constraints where it crosses the AONB near Little Beckford.

The 1993 option also shows a double-junction replacing Junction 9 with two sets of slip roads on the motorway very close together. I think that is less likely to be considered an acceptable solution by Highways England now because of the closeness of the two junctions. An alternative proposal might be some kind of connecting roads between the two roundabouts to allow continued access to the industrial sites or a replacement junction.

The route of the 1993 roads is slightly north of the indicative 'distributor' road in the Ashchurch Masterplan (see Fig 3) which is closer to Fiddington. Of course, in 1993, there were no housing proposals in the vicinity of the new road line.

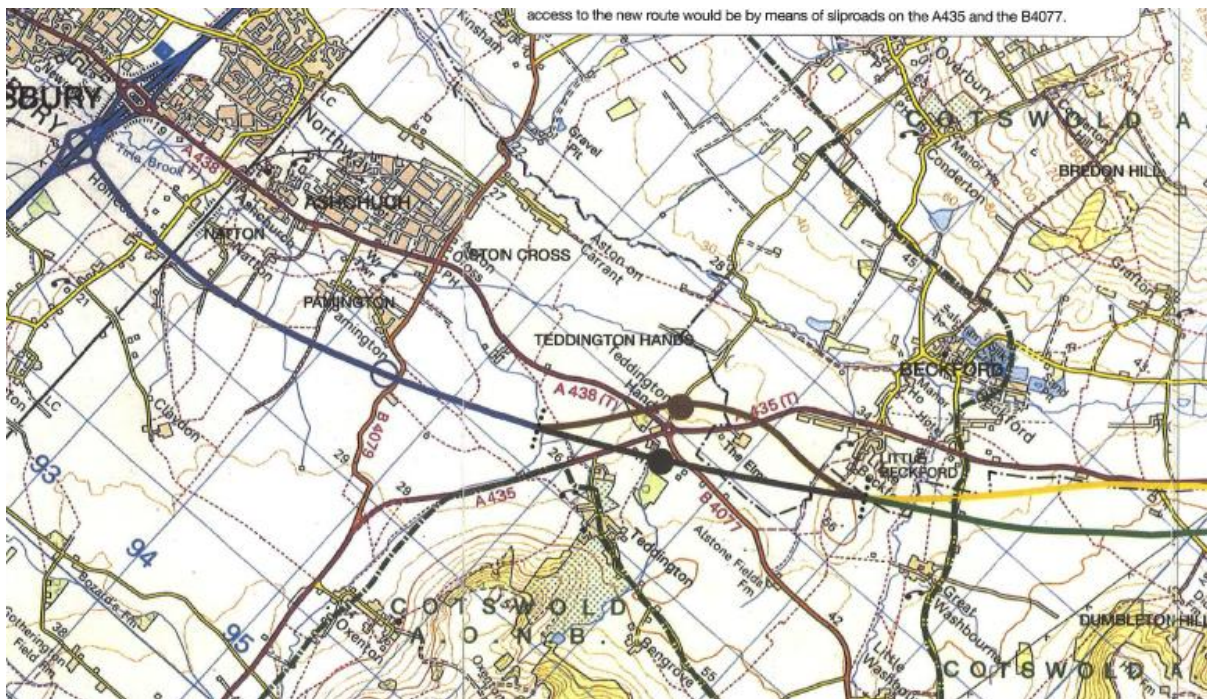


Fig 12. 1993 Bypass Proposal from DfT

Unlike the 1993 proposal, the Masterplan map shows the road continuing to Tewkesbury, although a careful alignment would probably be needed given potential flooding issues. It doesn't link in the Masterplan to the current junction.

It is not made clear in the Masterplan whether the distributor road is also expected to be the new A46 route. According to the Masterplan in Phase 3: *'New southern development road provides direct access to employment area (Fiddington) and residential areas, relieving pressure on A46'*.

This suggests the Masterplan is assuming the A46 retains its function and the Southern road is just a local distributor (presumably with access over the motorway to Tewkesbury), adding to the confusion about this issue.

However, since it appears as a more substantial proposition elsewhere the question remains what would be the purpose of such a road?

While Midlands Connect and Highways England may want to construct a road with few junctions which acts as a congestion free route for through traffic, the council's approach is likely to be to seek for the road to act as a local distributor to allow development and perhaps also as a connecting route between Ashchurch and Tewkesbury.

This conflict of aim can be seen elsewhere on the A46, more notably at Leicester. It is also evident in the submission as an LLM by Western Gateway as opposed to its role as a Trunk Road in Midlands Connect thinking.

Three other options have been suggested to me.

The first is to continue a relief road North of Ashchurch. I am unsure how this would link to M5 junction 9. There may also be environmental constraints, such as flooding issues. It would be closer to Bredon Hill so might have higher landscape impacts. Both would need investigation.

The other is to go significantly further South, perhaps as far as M5 junction 10. This could face additional environmental constraints and be more costly. It would also not address immediate issues within Ashchurch itself.

A third option to go significantly further North towards Worcester would generate additional traffic on the M5 approaching Worcester and would have other impacts on the countryside which would need investigation.

I am not convinced any of these represent viable alternatives and promoting them would implicitly accept the need for an Expressway which could be detrimental to TAAG's position so I do not advise pursuing them.

#### *4.3 A46 Relief Road, Suggested Way Forwards*

In terms of how the specific A46 issues might be progressed, this final section sets out broad ways forward and considers how they fit in with TAAGs aims. However, it is not intended to be definitive and TAAG may wish to consider further, more detailed analysis of options. Comments are grouped under three distinct areas running from West to East.

##### *4.3.1 A46 Options (M5 J9 to Ashchurch)*

While the traffic problems of the A46 through Ashchurch itself may warrant some intervention, I believe there is a strong case against the grandiose ambitions of Midlands Connect and Western Gateway.

In particular, there is a significant level of HGVs on the existing A46, including some generated within and around Ashchurch.

Opportunities for on-line improvement are, unfortunately, limited because of existing housing. They are likely to become less feasible when new (already permitted) housing is built south of the road. And further road improvements to the A46 could actually make matters worse, increasing severage in the future and encouraging car use.

And while the current A46 has additional highway land beyond Ashchurch, so could be widened to Teddington Hands, that would not, of itself, resolve the problems in Ashchurch itself.

My conclusion, therefore, is that for Ashchurch, while traffic management and on-line improvements may assist, a new road south of the A46 cannot be excluded from any assessment, but I make the following observations:

- while any new road might need to be a trunk road, I do not believe it would need to be built to the standard of an Expressway.
- any road would need to be built with junctions to access housing north of its route, but should also act as a barrier to development with development further south avoided, since this new road would cut that development off from the rest of Ashchurch, allowing congestion to recur.
- such a bypass would need to resolve the issue of local HGVs utilising the current A46, even if it was downgraded. This would tend to support Junction 9 being relocated south of its current location.
- there would also be a particular issue about how such a bypass would link to existing HGV generators in Ashchurch itself because, if it did not, one might not divert significant numbers of local HGVs away from the current A46 (potentially a prerequisite to downgrading the current A46).

I do not believe the level of traffic along a new southern road is likely to justify the need for a dual carriageway or grade separated junctions and I think TAAG should be concerned that a dual-carriageway option would attract more traffic into the Ashchurch area from elsewhere, undermining any development benefits and, in doing so, would also create the justification for further dualling beyond Teddington Hands.

Rather than resolving Ashchurch's problems the Expressway could lock in longer term traffic problems.

#### *4.3.2 A46 Options (Ashchurch to Teddington Hands)*



While a new southern road could theoretically either link into the A46 or the A435, the latter would bring the route closer to Teddington and also could lead to development filling up beyond Pamington which would be undesirable.

Any road would need to link into Ashchurch and the wider network so it would seem that at least one junction going North into Ashchurch from the road would be required.

A direct link into an upgraded Teddington Hands Junction would, in my view, meet TAAG's objectives best, although an alternative would be to locate a junction just north of Teddington Hands. However, the latter could involve elevated sections of road which would increase the impact of the road, particularly on the landscape. It would seem feasible for a new link to utilise part of the current A46 alignment between Ashchurch and the junction with the following benefits:

- Utilising the existing junction at Teddington Hands could avoid a new road closer to the AONB and Teddington and Alstone villages. It could also avoid severance between the villages and the Teddington Hands Store, Garage and Pub and ensure that HGVs accessing the Truck Stop continued to use the existing route and not come from the south turning north onto the A435
- A new road could join the A46 between Ashchurch the Teddington Hands Junction but, if it was deemed necessary to keep the current A46 separate from the new road, the current road could potentially be diverted and run as a local road next to the bypass, with both utilising the existing corridor. Either option would need detailed design consideration. There is already some highway land available although it might need further land-take to accommodate both.
- A new road could then lead into either a modified Teddington Hands Junction or a replacement junction immediately adjacent, although a new junction, if it was elevated, would be likely to be more intrusive.
- This approach would link into the current A46 continuing towards Evesham rather than pre-empting a road south of the A46 beyond Teddington Hands which would further impact on Teddington (and potentially the AONB)

#### *4.3.3 A46 Options (Beyond Teddington Hands)*

Beyond Teddington Hands, I can see further good reasons for resisting an Expressway approach. There is no clear benefit to Ashchurch in a new Expressway to Evesham and the level of traffic on this section of road does not require an Expressway style dual carriageway which would, apart from anything, require significant land take from open countryside, including specifically the AONB.

The Design Manual for Roads and Bridges sets out opening width for new roads<sup>20</sup> (although this does not necessarily mean existing roads need to be widened to those standards.) The table in Fig 13 from DRMB TA46/97 sets out recommended opening year economic flow ranges. The section in question would be adequately served by the existing wide single carriageway category (WS2, 10 metres) or, at most, by an all-purpose dual carriageway (D2AP).

Carriageway Standard	Opening Year AADT	
	Minimum	Maximum
S2	Up to 13,000	
WS2	6,000	21,000
D2AP	11,000	39,000
D3AP	23,000	54,000
D2M	Up to 41,000	
D3M	25,000	67,000
D4M	52,000	90,000

Fig 13. From DRMB TA46/97

It should be noted that there is no Expressway Category, which would be closer to a D2M motorway.

Moreover, the strategic justification for the widening on this section of road, i.e. that it would allow traffic currently on the Midlands Motorway Box to divert to the A46 is also flawed as it is likely to generate additional traffic to fill the capacity, potentially against the interests of Ashchurch as the diverted traffic from the Motorway Box would go through rather than serving the area.

An Expressway aligned to the South of the current A46 would seem particularly disadvantageous to TAAGs aims and could have particular impacts on the environment and landscape the villages currently benefits from.

Noticeably, the Expressway to Evesham is presented as a separate proposal to the Ashchurch Bypass in the Western Gateway corridor analysis (See Table on Page 96)<sup>21</sup> and is not included in the resulting LLM bid (See Para 14.11)<sup>22</sup>. Given that there is

<sup>20</sup> <http://www.standardsforhighways.co.uk/ha/standards/dmr/vol5/section1/ta4697.pdf>

<sup>21</sup> <https://www.gloucestershire.gov.uk/media/2090917/wg-reb-part-2-strategic-corridors.pdf>

<sup>22</sup> <https://www.gloucestershire.gov.uk/media/2090918/wg-reb-part-3-mrn-llm-priorities.pdf>

competing funding, both along the A46 itself and with other schemes, I think there is good reason for arguing that upgrading the section of the A46 beyond Teddington Hands towards Evesham should not be prioritised.

The outstanding issue remains the impact on the village of Beckford. An option which was either on-line or perhaps slightly north of the A46 through Back Lane might be feasible but would impact on Little Beckford and would need to carefully consider the current A46 crossing point at Back Lane.

A route to the South avoiding Little Beckford would reduce severance and take HGVs, in particular, away from the village, but would increase countryside impact (albeit outside the AONB) and would be closer to some residents in the Little Beckford. Such a bypass need not necessarily be dual carriageway.

Beckford Parish Council supports a Southern Bypass. If TAAG were minded to agree, the proviso should still be that the Bypass is not linked to a new A46 junction south of Teddington Hands or part of a wider Expressway style route.

## 5. Conclusions

In conclusion I would make the following comments:

1. The scale of the Ashchurch Masterplan risks exacerbating traffic problems and is less sustainable than guiding development to the urban areas of Cheltenham, Gloucester and Tewkesbury.
2. The Masterplan sets out aspirations, for example, for sustainable transport and a new centre, which will be hard to deliver in practice.
3. The approach of Midlands Connect and Western Gateway, which seeks to accommodate future national traffic growth predictions via an Expressway, is likely to fuel car dependency and increase climate change emissions and should be rejected.
4. On-line management of and improvements to the current A46 should be progressed.
5. However, there need for some new road infrastructure to support local development South of the A46 cannot be excluded from further assessment.
6. Any new infrastructure should seek to be as unobtrusive as possible. It should not be assumed that either a dual carriageway or grade separated junctions are required.
7. Linking into the current A46 before or at Teddington Hands should be examined, with a junction improvement on or adjacent to that junction. A link to the A435 would be likely to have unacceptable negative impacts on Teddington and Alstone villages and the adjacent AONB.
8. Beyond Teddington Hands Junction any improvements should be on-line wherever possible, following the current line of the A46 towards Evesham to limit impact on the countryside.
9. All measures should be rigorously tested against the environmental commitments of both the Government and the local councils and seek to minimise impacts on the landscape, on climate emissions and other negative environmental impacts.