M4 JUNCTION 18A LINK STUDY: PUCKLECHURCH PARISH COUNCIL CONSULTATION RESPONSE

October 2017



Executive Summary

Pucklechurch Parish Council believes that the consultation process is flawed, that no case has been effectively made to support the delivery of any of the options and it remains resolute in its opposition to the Eastern options: these options simply do not deliver the outcomes that the cross-party campaign fought for. Furthermore, if either of the two Eastern options are enacted this would have potentially devastating and irreversible consequences for our community identity, multiple designated heritage assets, our industrial and archaeological heritage, two conservation areas, the character of the local landscape (including the setting of the Cotswolds AONB) and its biodiversity, as well as residential amenity, traffic and air quality. One likely farreaching consequence will be the creation of new rat runs and traffic congestion over a much wider regional and rural road network (induced traffic) that has not been appropriately analysed as part of this study.

The detailed demonstration of the Parish Council's opposition to the Eastern options should not be read as tacit approval of the Western option as an alternative or appropriate solution.

This response covers Pucklechurch Parish Council's three main areas of concern that form the basis of its objections:

- The consultation process and its failure to provide appropriate detailed and accurate information on which anyone can make a well-informed comment
- The efficacy of providing a junction at all in light of the fact that no alternative options have been explored against which the proposed options can be tested
- Evidence that demonstrates why neither of the two eastern options are appropriate

Introduction: the lack of accurate detail and opportunity for analysis

A number of documents were provided to members of the public that were meant to provide key facts upon which they could make a considered opinion – these documents have been examined by PPC and found to be well below the standard we expect to be delivered, as demonstrated below.

It is not possible to comment at all on the accuracy of the figures or assumptions made in the main Consultation Document as no proper data is provided within it. No detail is offered, for example, with reference to air quality or noise levels and traffic data is reduced to a series of highly stylised comparative diagrams that offer no possibility of understanding the specifics of current or predicted traffic flows in terms of the number of vehicles or journeys. Equally there are many impacts that are overlooked or downplayed especially with regard to the historic, environmental and human costs and the figures relating to expenditure required to achieve each option are only provided as high-level estimates. PPC believes that some cost elements relevant to the Eastern options have not been included and so the figures provided for each option are unlikely to reflect the true cost of delivery and furthermore do not appear to be comparing like with like. The 'Benefit Cost Ratios' are presented as a statement of 'fact', devoid of any detail that supports the calculations. Consequently, we, and others, have not been provided with a satisfactory opportunity to interrogate or challenge any of these figures and assumptions as they are not supported with adequate information relating to their determination. South Gloucestershire Council also has a duty of to manage expectations and the consultation should be based on the assumption that residents have a real chance of affecting the outcome. Several people have reported that CH2M reps were very clear that work would likely continue to develop the Eastern options even if the if Western option was eventually preferred but this is not made clear in the documentation.

Reports & Data

Pucklechurch Parish Councillors specifically requested that the technical detailed reports written in support of the 'optioneering' process be made available for public scrutiny when it met with South Gloucestershire Council Officers on 19th July 2017. It is clear from the questions asked at public exhibition as well as letters that residents have addressed to SGC and shared with us, or published via social media, that they have been frustrated by the sheer lack of data that has been provided: it is not good enough to be repeatedly told that this level of detail is not required for 'high level concepts' when these concepts will potentially become reality that threatens their community, homes and local area. Given that £375k has already been spent on the feasibility study to date, PPC would expect these reports to exist and to be available to share. Our residents do not appreciate being patronised, as many reportedly felt they were at the public exhibitions, when being told that some of the spreadsheets and diagrams would be too complicated for members of the public to understand:

"at this stage of a consultation of this nature we need to try to find the right balance between putting enough information on diagrams to make them useful, but not so much as to make them unreadable to the general public. If we were to include every home, building and environmental feature on the diagrams then they would not be easily readable. In addition, if we make diagrams too detailed we would be at risk of giving the possible impression that route option alignments are fixed, whereas in fact if the project were to progress and an option taken forward, alignments could alter depending on the outcomes of ongoing and further technical work and the results of the current public consultation."¹

Finding the right balance and presenting an accurate and detailed picture for consultation purposes are not mutually exclusive objectives. The information has been presented in a highly selective and subjective way: when a member of CH2M was challenged by a Pucklechurch Parish Councillor as to why some environmental

¹ <u>https://www.facebook.com/groups/1940588919512554/permalink/1973511996220246/</u> Written response by Ben McGee Principal Transport Planning Officer

constraints relating to the Eastern options were not included on the Constraints Map, the answer was that that member of staff had made a conscious decision not to include them and therefore not because they didn't know they existed. This begs the question as to how many other details have been deliberately chosen not to be included?

Failures in Public Engagement

Adopting a 'default digital' approach to consultation may be cheaper for the local authority but it is not an effective way of reaching, informing or engaging with the vast majority of people who will be impacted by these proposals. Providing access to consultation materials in a non-digital format at libraries and one stop shops by request is irrelevant if people for whom they are most appropriate do not know they exist in the first place or cannot get there. In this respect it is also not the role of the parish council to make up the shortfall in terms of the dissemination of information about the consultation. We are led to understand from comments made by a CH2M representative that this is the biggest public response they have ever experienced to a concept consultation but this cannot be attributed to what can only be described as the minimal effort made by SGC to publicise the process.

No attempt was made to specifically engage with or assess the impact on numerous smaller business owners prior to the consultation – it is unacceptable to expect farmers and bed and breakfast owners and many others to realise that a regular 'sustainable travel roadshow' held at the Science Park would be of any relevance to them or to their future or to even know that they ever took place. Emails and other documents supplied via FOI show that SGC's officers clearly recognised the need to gather views from businesses but it would seem that this was only with a view to inform the economic case in support of the junction rather than assessing potential impacts.²

No effective attempt has been made to engage with hard to reach communities. Whilst it may be deemed to be standard practice to rely on emails being sent to umbrella groups there is no evidence to show that this has had any appreciable effect on the dissemination of information and these umbrella groups will not necessarily have contact with or have knowledge of the specific needs of individuals

² https://www.whatdotheyknow.com/request/416845/response/1023910/attach/html/4/Emails.pdf.html

in our local community. There is no evidence as to the efficacy of this approach and this appears to have been a routine exercise with no appreciable outcome. The public exhibition and its staffing proved to be less than satisfactory - just 15% of attendants that provided feedback to PPC reported that they were satisfied with the information they received.³ Staff often did not know the answers to questions and provided opinions rather than fact and several had not worked on the project at all. Some answers that were given by different staff members contradicted each other. No record of residents' concerns was made by SGC at the time of the public exhibition other than the number of people that attended. Feedback forms were supplied by PPC and the responses collated by subject matter.⁴ Many people reported the maps were hard to understand with no landmarks and/or street names and people couldn't identify who they were talking to (SGC or CH2M).

Study Area

Whilst the Phase 1 Study Report has been shared, it is clear that the work undertaken by the time it was produced concentrated its efforts on the area in and around Emersons Green East: this has, in PPC's opinion, resulted in an imbalance in the information made available to the public and underplayed the impact of the Eastern options. Pucklechurch and Siston are referenced just once each in this 60page document and only with reference to through traffic (p13 and p16 respectively). In fact, Pucklechurch appears to have been so insignificant as far as the Phase 1 Study was concerned as to have been completely obscured by the legend on the 'Constraints Map', a map upon which Siston doesn't appear at all (as shown on p6).

The apparent lack of detailed work on the Eastern options until relatively recently is also evidenced by other documentation released under FOI requests including one made to the Environment Agency. The latter shows that no detailed information was either sought or received about the areas covered by the Eastern options and that Environment Agency representatives did not attend a stakeholder meeting.^{5 6} The

³ A summary of this feedback can be accessed via the PPC website at

http://pucklechurchparishcouncil.weebly.com/uploads/2/0/0/5/20059023/q__as_plus_comments.pdf ⁴ ibid

⁵ FOI 57815-WX: 170822/nw04 - M4 Jct 18 a and link road study

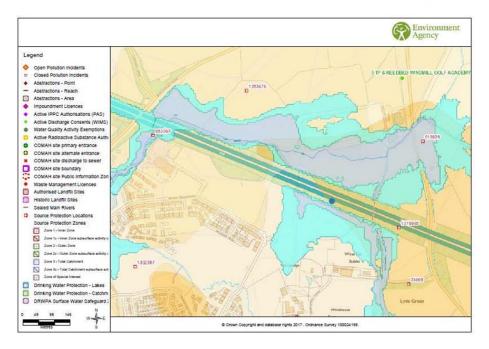
⁶ https://www.whatdotheyknow.com/request/416845/response/1023910/attach/html/4/Emails.pdf.html

map supplied by the Environment Agency (shown below) is described as 'M4 Junction Appraisal Study' and was supplied to CH2M in February 2017 as a part of a preliminary opinion: no concomitant map was sought or supplied relevant to the Eastern options. This may explain why several water courses affected by the Eastern options are not referenced, in particular Siston Brook, as well as a number of other environmental factors.



Area of Study March 2017

Constraints Map Phase 1 Study Report: March 2017



M4 Junction Appraisal Study (Environment Agency)

Consultation descriptions and language

There are examples of value laden comment throughout the Consultation Document that read as opinion rather than fact and this introduces a level of subjectivity and bias to the information that is presented. For example, with regard to the area of search and route options, there is an imbalance between the descriptions of the two remaining options: we are told of the Eastern option that "a new motorway junction could be accommodated without the need to move the M4" when the features of both options should best have been objectively described. The summary of the environmental issues for the Eastern options makes mention of loss of areas of vegetation but does not mention that that will entail taking many hectares of currently productive agricultural land out of production (aside from the destruction of habitats) and it doesn't appear to give any weight to the cutting of miles of dual carriageway through designated conservations areas (see p 26 below).

The Consultation Questionnaire should have been completely neutral. This sentence:

"Two options have been identified that seek to avoid properties and important environmental sites."

carries with it the implication that they do when as shown below they most certainly do not. Q1 is designed purely to gather data about road usage and not to elicit a view on the scheme options: to promote it as the first question may have led some respondents to believe that a weighting would be attached to their views dependent on driving habit. Q2 is designed to gather data to help inform the case for a junction and not to gather a view. The word 'environment' can be interpreted in more than one way and so should have been qualified with a definition. At no point is a question asked about whether the respondent thinks there is a need for a junction or what the impact on people/community/heritage might be or what they think about the costs. The opportunity to comment in any detail is curtailed by the extremely small amount of space allowed for comments. It is also a failure of the questionnaire not to provide the opportunity for respondents to comment on the whether or not they believe the scheme options will achieve the objectives and to what degree, or for them to offer an alternative. No questions were asked about public transport usage.

Scope of the Study

Section 1.1 of the M4 Junction 18a Link – Phase 1 Report says:

"This study involves the assessment of options for a new motorway junction between the M4 Junction 19 and M4 Junction 18, and provision of a Link to the A4174, north Bristol."

And that amongst other things the study will:

"Identify options for increasing capacity and resilience on this part of the transport network across all surface transport modes."

It is PPC's understanding that this study should therefore have presented a detailed appraisal of the role that public transport has to play in meeting the scheme objectives yet residents were told multiple times by CH2M staff that the task of the feasibility study was only to identify options for a new junction. It is not acceptable for public transport, walking and cycling to be solely considered within scheme option design and it is a failing of this consultation to only refer to a generic list of complimentary transport measures identified in the emerging Joint Transport Study with no details on how these would link together.

The vision for the Joint Local Transport Plan 3 (JLTP3) is to provide an:

"affordable, low carbon, accessible, integrated, efficient and reliable transport network to achieve a more competitive economy and better connected, more active and healthy communities"

with one objective being:

"A transport system where both bus and rail play their part. Where buses serve the movements around and within towns, cities and rural communities. Where rail serves both short and longer journeys"

The impact that an attractive public transport system could have on resolving the issues identified in the study can be demonstrated with survey data gathered to inform the 'Parish of Pucklechurch Community Plan' (2007): this showed that there is a significant opportunity to attract people onto buses if the service goes to the right destinations and they are frequent and reliable.⁷ There was a statistically significant response rate to this survey (1273 individual respondents) and although this data was collected in 2007, there is evidence that many of the opinions expressed at that time have not changed since they correlate well with information gathered as part of the initial phase of the current Neighbourhood Planning process. Table 2.1 of the Phase 1 Study Report displays Census data from 2011 which showed high dependency on cars for travel to work in South Gloucestershire: it is suggested that this is associated with the lack of alternatives available in the area. This being the case, comparison with the 2011 Census data for Pucklechurch showed that there were 640 commuter trips each way to destinations of 10km or less, i.e. the trips most likely to be candidates for bus travel. It would seem reasonable to assume that our residents' attitudes might be applicable to all population centres along the eastern fringe and that the provision of an attractive bus system could result in a significant shift from local vehicle traffic to bus journeys. This would potentially free up network capacity on a scale greater than that assumed for a new junction 18a but has not been factored in an option within this study⁸. This is largely because there is an assumption throughout the documentation provided to support the consultation that increasing capacity by building a new junction and link road is the best way to solve the problems that have been identified yet no detailed evidence has been provided to the public to support this assumption. Whilst references are made to the emerging Joint Transport Study, the final draft document has only recently been made available to the WECA Voluntary Joint Scrutiny Committee (22nd Sept 2017). However, although this document is available within the public domain, its existence has not been widely publicised so as to enable it to be fully considered by respondents to this consultation and this is clearly a major failure of timing, process and co-ordination.

⁷ http://www.pucklechurch.org/Final_Plan_for_Printing_plus_cover_v8_web_normal.pdf

⁸ Community Plan data compiled by Martin Smith

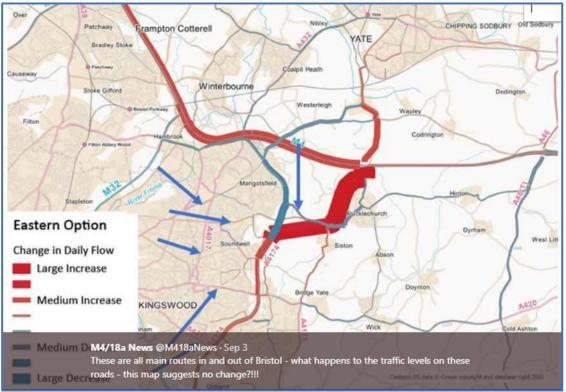
It should be noted here, that at the time of writing this response PPC is awaiting a full written explanation as to how particular assumptions and estimated costs were determined for the purposes of the Joint Transport Study Final Report since it appears to pre-empt the outcome of the public consultation process and the final feasibility study report before it has been delivered. This public consultation, regarding three alternative route options for the proposed new junction, does not conclude until October 16th 2017 and the final feasibility study report is not due to be presented until March 2018. It would seem logical therefore that the Joint Transport Study Final Report should allow for the estimated cost of the most expensive option not the cheapest if no option is currently preferred. This is in spite of caveats relating to the conceptual nature of the proposals, reviews of route length, potential specification and therefore cost.

Traffic impact

The Frequently Asked Questions document identifies a list of considerations for how the scheme options will be assessed includes traffic volumes and capacity. Section 1.1 of the M4 Junction 18a Link – Phase 1 Report says:

"The full impact of the scheme on the surrounding road network and area will be reported in detail. The impact on connectivity to the east, west and north will be determined in addition to connectivity into Bristol to the south. The impact of travel in the wider area will also be considered..."

PPC does not agree that the documentation presented in support of this consultation demonstrates the full impact of any of the schemes: CH2M representatives confirmed this to Pucklechurch Parish Councillors and other residents at its public exhibition in Pucklechurch when they admitted they needed to do more studies relating to, for example the main commuter routes emanating from east Bristol (as highlighted with blue arrows below). The maps provided suggest there will be no change at all in daily flow in spite of these being the most populated areas relative to the schemes.



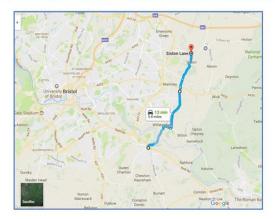
Traffic impact: lack of detail, figures and modelling

The use of relative terminology to describe the changes in daily flow does not enable anyone to properly understand the accuracy of the traffic modelling and is also highly misleading: the 'large increase' shown for the Eastern option above could be as little as one vehicle as no vehicles can currently travel along a route that doesn't yet exist. It is not possible to properly compare or quantify the relative increase from a starting point of zero. PPC disputes the fact that there would be a decrease in traffic flow as shown here along the B4465 as all traffic that wanted to travel to the Science Park and Lyde Green would be likely to use the Dramway roundabout as the nearest access point to the new link road. Furthermore, PPC believes there will be large increases in the volumes of local traffic travelling along less suitable roads including those rural roads to both the north and south of the M4 that are not considered at all. This would have significant environmental impacts on the communities along these routes but this has not been accounted for. There is, for example, no apparent provision for what will happen to the predicted 'medium increase' in traffic after it leaves/enters Siston Lane, which has a narrow carriageway, single track bridge, a 7.5-ton weight limit and is already a rat-run. Several examples are given below that demonstrate where 'alternative rat-runs' would occur.

How to avoid the A46 and still get to the M4



How to avoid A4174 to get to M4 from Keynsham



How to avoid the A46 and still get to the M4







The only detail provided with regard to actual numbers of car journeys appears in the FAQ document which references them as follows:

"The traffic predictions show that on average the 400, 000 journeys will take around 2% less time"⁹

This statement makes no sense at all since we are not appraised of the period of time over which these journeys actually take place or where from and to. Irrespective of this, the actual time saved over a one-hour journey would equate to just 72 seconds and this would no doubt be negated when measured on a 'door to door' basis. This figure represents a negligible time-saving that can hardly be used to justify the proposed expenditure.

Answers provided to residents after public exhibition meetings demonstrate that numbers relating to predicted traffic levels along the eastern link road do exist but were not shared as part of the consultation:

*"If constructed, the new eastern option link road would be predicted to carry around 1600 vehicles in the off-peak period, 4200 in the morning peak period and 3000 in the evening peak"*¹⁰

That is about 8,800 vehicles per day but this number is in and of itself meaningless since we have been provided with no indication of the numbers of cars that travel along the current road networks and therefore cannot make comparisons. Two of the objectives for the schemes proposed by the feasibility study are listed as:

- Relieve congestion to M4 Junction 19 and M32 Junction 1, and on the A4174
- Improve safety by reducing congestion related collisions on M4 Junction 19 and M32 Junction 1, and on the A4174

All the scheme options are presented as having the potential to achieve these objectives but not to what degree and conversely all scheme options are also

⁹ FAQ Document Q42 detail

¹⁰ Response provided by Ben McGee, Principal Transport Planning Officer posted 13/9/17 https://www.facebook.com/groups/1940588919512554/

deemed to result in increases in congestion elsewhere. As shown above PPC does not agree that sufficient work has been undertaken to understand the consequences of induced traffic in other parts of the road network. Members of staff at the public exhibitions were unable to supply any answers to questions about collision data, projected traffic data or transport network resilience/journey time reliability data: one resident was told that:

"Collision data for the whole of the UK is available on the web"

and was expected to try and research this for himself. This lack of information and inability to provide it has led residents to question the transparency of the whole process.

In 2006 the Greater Bristol Strategic Transport Study said:11

"6.76 Although the new M4 to A4174 Link Road scheme has a strong economic case, mainly derived from travel time savings for journeys from outside the study area, it is not being recommended by the study. The new link would alter flow patterns in the congested M4 J20 and M4 J19, M32 J1 and the northern stretch of the A4174 Avon Ring Road, putting additional strain on the A4174 and causing congestion problems on the M4 to the east of the new junction with the strong likelihood that widening of the M4 between Junctions 18A and 18 would be necessary. The improved linkage to the M4 is likely to encourage long-distance commuting to and from developments in Emersons Green and Pucklechurch, which would go against the principles of sustainable development."

PPC therefore rightly questions what has changed.

The Campaign to Protect Rural England commissioned consultants Transport for Quality of Life to produce *"The Impact of Road Projects in England"* report which

¹¹ See http://www.westofengland.org/transport/gbsts

examined 86 official studies of completed road schemes. ¹² This study drew upon evidence published by Highways England through its Post-Opening Project Evaluation (POPE) process, supplemented by long-term evidence from four road schemes that were completed between 13 and 20 years ago. The report provides clear evidence to show that road schemes generate traffic in the both the short and long term rather than reduce it.

What makes the scheme options proposed by this study any different to those that were evaluated by Highways England itself? Why would these succeed when so many others didn't?

The Economic Case

The Consultation Document states that one of the scheme objectives is to:

"Unlock the economic potential in the north-east Bristol Fringe, particularly within Science, Technology and Innovation sectors."

No evidence is offered in support of how this will be realised, what the benefits will be and for whom, other than that provided in the Phase 1 Report Section 2.4.2 Gateway2Growth: this is reduced in summary in the Consultation Document to how well each scheme provides direct access between the M4, the Science Park and Lyde Green.

Whilst the Western route would provide good direct access between M4 and Science Park and Lyde Green businesses, this would certainly not be the case with the Eastern routes. In fact, the proposed Eastern routes would be less direct that the existing A4174 to M4 route or via the Westerleigh Road to Tormarton. Surprisingly no account has been taken of recent research that questions the credibility of driving economic development through the building of roads and that in reality the economic gains are likely to be marginal.

¹² http://www.cpre.org.uk/resources/transport/roads/item/4542-the-impact-of-road-projects-in-england

The Campaign to Protect Rural England (CPRE) report *"End of the Road? Challenging the road building consensus"* reviewed the economic impacts of 25 road schemes that had been justified on the basis that they would benefit the local economy. ¹³ The following is an extract of the report:

"In 76% of these schemes, the evidence ranged from thin and circumstantial to non-existent. Only 5 had any direct evidence of economic effect at all and even then, there was no evidence that the road was responsible for them, or hadn't simply moved economic activity from elsewhere. Only 24% had evidence of economic uplift, but this was mixed. In most cases this statement needs to be qualified, because any economic improvement was probably the result of changes incidental to the road scheme. There is also no evidence on whether new economic activity associated with these road schemes was genuinely additional, or simply a displacement of economic activity from elsewhere."

PPC has found no evidence in the materials provided for the purposes of this consultation that would lead it to believe the economic case for a junction and link road has been made. The weakest argument is clearly that which is made is for the Eastern options. It is also of great concern that the Consultation Document does not address the negative impact on existing, long established businesses in and around Pucklechurch and Siston. Among the many businesses that will be hit are:

- Westerleigh Crematorium, Westerleigh Rd
- St Aldam's Ash Farm, Westerleigh Rd (nursery and pick your own farm)
- Companions Haven, Westerleigh Rd (pet crematorium and garden of rest)
- The Rose and Crown, Parkfield Rd (public house)
- A H Britton & Sons Transport, Parkfield Rd (haulage company)
- Fern Cottage, Shortwood Hill (award winning B&B)
- Gingell's Farm and multiple others across Pucklechurch and Siston parishes.

¹³ http://www.cpre.org.uk/resources/transport/roads/item/4543-the-end-of-the-road-challenging-the-road-building-consensus

 Multiple stable and livery yards in and around Parkfield Rank and Coxgrove Hill.

In particular the impacts of, and on, Westerleigh Crematorium on the surrounding road network appear to have been entirely overlooked. Over 2000 cremations take place there annually and a newly opened chapel offers the potential for 20 more cremations a day: this equates to high numbers of funeral corteges and additional vehicles carrying those attending the cremation services. It was recognised when it opened in 1992 that it was best-placed to service the whole of the needs of what is now South Gloucestershire and it has grown substantially in response to need. The grounds were specifically arranged to exploit areas of unspoilt natural beauty and to create a tranquil atmosphere in which to remember loved ones. It's clear therefore that the predicted increase in traffic on the approach to the Crematorium would be detrimental to both its purpose and setting.

Furthermore, funeral corteges generally drive at no more than 20mph along these roads and often cause huge queues of traffic to accumulate behind them through Pucklechurch itself and from Yate to the junction with the B4465. This means there would be a direct effect on all traffic trying to access the M4 at the proposed new motorway junction especially as traditionally, it is common for drivers to grant funeral processions the right of way when driving. The Crematorium itself would therefore have a large impact on the efficient flow of traffic approaching the new junction from both the A4174 and Yate that has not been accounted for. ¹⁴

Assessing Scheme Impacts

The FAQ document provides a list of other impacts that will be considered when assessing the merits or otherwise of the different options. Unfortunately, the Consultation Document and supporting papers provide little or no information on many of these:

Air quality

No information has been provided at all in any of the documentation provided (see further comments p. X below)

¹⁴ Information collated by Alderman Marilyn Palmer

Noise

No explanation is provided about what a noise important area is and contrary to what is stated on SGC's consultation pages these are not marked on the Constraints Map which has been provided.

Water Resources

No details are provided with regard to the impact on multiple water resources that are relevant to the Eastern options not least of which is Siston Brook that rises in the area of the roundabout proposed to be situated south of Shortwood Road. Similarly, the route of Bristol Water's Pucklechurch to Tolldown water main (as shown on p17) is not referenced at all on the Constraints Map¹⁵.

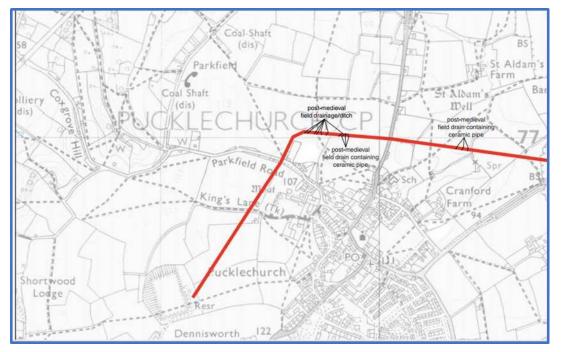
Flood Risk

As mentioned above no detailed information was either sought or received about the areas covered by the Eastern options.

Greenhouse gas effects

These are not mentioned in the documentation anywhere at all.

Other impacts that should have been considered in more detail and especially in relation to the Eastern options are discussed below.



Route of Bristol Water's pipeline

¹⁵ Map source: http://reports.cotswoldarchaeology.co.uk/content/uploads/2014/01/1814-Pucklechurch-to-Tolldown-Main-Replacement-WB-Rpt-04163-complete.pdf

Environment

It is a major failing of this consultation that no information has been provided that enables respondents to gain an appreciation of the potentially catastrophic and permanent effect these proposals would have on the local environment. This is especially clear with regard to the Eastern options (shown below) where the consequence of the construction of a motorway junction and the driving of almost 3 miles of dual carriageway through 35 hectares of open productive countryside is summarised as 'loss of areas of vegetation to construction' (Eastern option A). Indeed, throughout the consultation this land was referred to as 'open countryside' it is not, it is mainly productive agricultural land that forms an important part of the green belt.

It is impossible to see how either of these two options in particular could be mitigated to such an extent so as to meet the requirements of the scheme objective which is to:

"Minimise the impact of traffic/infrastructure on the environment and, where possible, deliver opportunities for environmental improvement."

It is also impossible to understand why the environmental impacts of the Eastern options were downplayed in the Consultation Document when documents obtained under FOI request describe them as needing a significant amount of Green Belt land and having:

"Significant impact on the natural environment, which will require mitigation."¹⁶

Furthermore, the language used to describe these impacts introduces bias: why should the impact on visual amenity for Eastern Option A be referenced solely to local residents? All options will impact on visual amenity for everyone whether they are local residents or not.

¹⁶ Slide 31

https://www.whatdotheyknow.com/request/416845/response/1023910/attach/7/M4%20Junction%2018a%2 0Workshop%202%20Final%20Draft%20Presentation%20May%202014.pdf?cookie_passthrough=1

With regard to the potential visibility of Eastern Option A from the Cotswolds Area of Outstanding Natural Beauty, PPC can confirm this would be the case because two Councillors bothered to go there to check: Parkfield Rank is clearly visible from several points along the Cotswolds edge.

FAQ 53 summarises the apparent minimal amount of environmental assessment done to inform the study as it is currently presented. It is shocking to learn that in spite of the fact that:

"No specialist environmental surveys have been undertaken at this stage of options development."

the project team's environmental specialists have contributed to the option development and selection. It is simply not acceptable to be told that a desk-top study along with a walkover of some areas of publicly accessible land is all that is required at this stage, nor is its acceptable to expect that:

"The public consultation will provide further information on the environmental impacts of the scheme options."

when CH2M are being paid vast sums of money to do this work.

The result of the work that was done does not manifest itself in the consultation documentation and by a CH2M representative's own admission, elements relevant to environmental impact were selectively chosen to be removed from the Constraints Map to avoid it becoming too visually cluttered. The Constraints Map itself does not provide a clear and adequate representation of the environmental character of the landscape that would be devastated, but drone film footage of the Eastern route shows exactly what would be lost and this would involve rather more than the 'loss of areas of vegetation to construction.'¹⁷

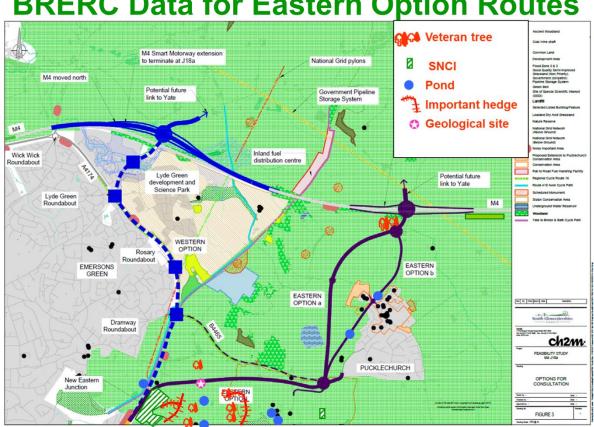
To address this imbalance, PPC commissioned a number of environmental datasets from Bristol Regional Environmental Record Centre, which demonstrate that contrary

¹⁷ May be viewed online at: <u>https://www.youtube.com/watch?v=NG_1B4L3izY&feature=youtu.be</u>

to the impression provided by the Consultation documents, the areas that would be impacted by the Eastern options support a wide array of wildlife in a variety of different habitats. In addition to this the datasets highlighted important considerations not included on the Constraints Map which include:

- Two Sites of Nature Conservation Interest: Mangotsfield Golf Course Marsh • sits at what would be the junction of the proposed new link road with the A4174 and the Verge of the M4 near Burbarrow Lane would be impacted by slip roads
- Phase 1 habitats, ponds, important hedges and veteran trees¹⁸
- LGSD Pucklechurch Woodland and allotments •

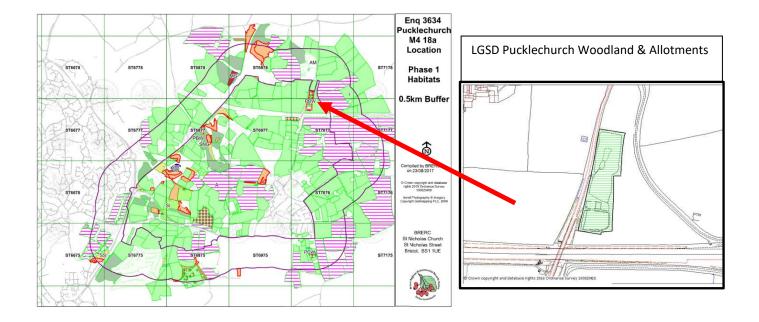
These are summarised in plan form below and on page 21.¹⁹



BRERC Data for Eastern Option Routes

¹⁸ Absence elsewhere on the plan does not indicate they do not exist, merely that the area has not been surveyed.

¹⁹ PPC is indebted to Jacki Berry for her analysis of the environmental and air quality data



The datasets acquired from Bristol Regional Environmental Record Centre detail the presence of 23 red listed plant species, 10 red listed animal species and 6 amber listed species along the line of the Eastern option routes.

As mentioned above no consideration of Siston Brook which rises in two places to the north of Siston village has been made on the Constraints Map: it also supports wildlife in the nature reserves it runs through. Similarly, no detail is provided as to the mitigation measures that would be employed to offset the damage caused to the environment. Recent research that examined road-building schemes over the last 20 years has, however, found clear evidence that road schemes lead to permanent and significant environmental and landscape damage.²⁰ 80% of these road-building projects had an adverse impact on the landscape and damaged the environment because the:

- Right measures were not identified
- Measures were identified but not implemented
- Measures were poorly implemented
- Measures were implemented but not maintained

²⁰ See Campaign to Protect Rural England (CPRE) report "End of the Road? Challenging the road building consensus" https://www.cpre.org.uk/resources/transport/roads/item/4543-the-end-of-the-road-challenging-the-road-building-consensus

The Green Belt & Landscape

PPC disagrees that the permanence of the Bristol and Bath Green Belt will not be compromised as the result of delivering either of the two Eastern route options. Equally it does not believe that what has been presented as part of this consultation process adequately demonstrates the significant benefits required in order to be able to demonstrate the 'very special circumstances' required to outweigh the harm that would be done. The fundamental aim of green belt policy is to prevent urban sprawl by keeping land permanently open. The Joint Spatial Plan Green Belt Assessment Stage 2 (Nov 2016) assessed smaller parcels of land to determine their contribution to serving Green Belt purposes:

"Most cells adjacent to the communities of the east fringe of Bristol are identified as making a major contribution to Green Belt purposes. All cells adjacent to the large built up area, and their immediate neighbouring cells, are assessed as making a major contribution to checking unrestricted sprawl. In a number of places, the cells act to check sprawl arising from the coalescence with villages and small settlements, including Pucklechurch."

Furthermore these:

*"cells are characterised by their open character and countryside uses and assist in safeguarding the countryside from encroachment."*²¹

PPC believes that although strategic housing development has not been identified for this area in the emerging Joint Spatial Plan, building a dual-carriageway across it will undoubtedly make it vulnerable to undesirable encroachment in the future. It is true the Consultation document references the Green Belt but no real account is taken of the landscape itself or how it is used. The Landscape Character Assessment for South Gloucestershire (adopted as a Supplementary Planning Document in 2014) provides a clear statement of the distinctive attributes and

²¹ <u>https://www.jointplanningwofe.org.uk/gf2.ti/-/756738/23257829.1/PDF/-</u> /Towards the Emerging Spatial Strategy Green Belt Assessment Stage 2.pdf

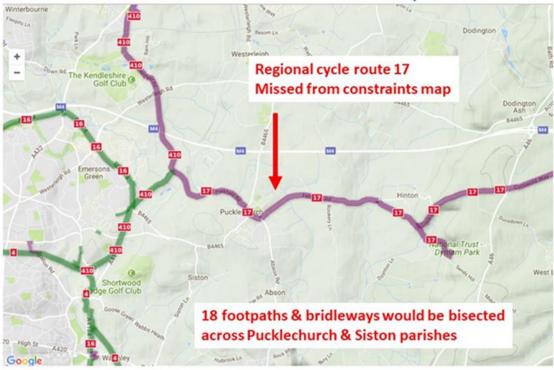
features of Pucklechurch Ridge and Boyd Valley (Area 6).²² It is described as a diverse undulating rural landscape of mainly mixed farmland and assesses the changes that are taking place within it as well as providing strategic guidance on its development. Much of the Landscape Strategy for this area is at odds with the building of a dual carriageway across the middle of it:

"Due to the strong visual interrelationship between the character area and the Cotswold scarp, development which would be prominent from or interrupt views to the scarp should be resisted in order to preserve the natural beauty of the AONB and its setting.....Transport proposals including new structures should be sensitively located and designed to protect the character and amenity of the host landscape and wider views....Ensure that the rural landscape settings of the designated conservation areas, including views towards the Cotswold Scarp from within the Pucklechurch Conservation Area, are not harmed by new development.....Maintain or improve remaining areas of tranquillity, including ensuring that lighting proposals do not disturb wildlife."

This is not an unused landscape: it is a productive agricultural landscape and it is also a recreational, accessible and sustainable landscape that provides many benefits to a wide variety of people, not just those that live in Pucklechurch, Parkfield, Shortwood and Siston. Many of its attributes are not evident in the Consultation documentation and some are also missing from the Constraints Map (as shown below) including the Community Forest LDP and Regional Cycle Route 17 (see map p 24 below).

²² http://www.southglos.gov.uk/environment-and-planning/countryside/planning-landscape-characterassessment/

Accessible & Recreational Landscape



Preserving this green space benefits the wider urban population: it provides opportunities for recreational and educational opportunities and acts as a green lung for the urban centres. It helps to protect the natural environment and is a retreat for wildlife. It contributes to health and well-being and community cohesion because it defines the spaces we live in and shapes their identity. PPC believes building a road straight through it risks all of this and it is a risk not worth the taking.

Air Quality

It is a major oversight that this issue is not addressed within the consultation documentation. DEFRA and the Department for Transport both recognise that air pollution has a serious adverse impact on public health, the natural environment, and the economy and addressed this in a report published in May 2017.²³ Air pollution is the largest environmental risk to public health in the UK, it affects both animals and plants and reduces biodiversity, it also damages agricultural crops and forests. Doctors estimate that there are 40,000 deaths per year in the UK from outdoor air pollution and that some people suffer more because they live, learn or work near

²³ https://consult.defra.gov.uk/airquality/air-quality-plan-for-tackling-nitrogendioxide/supporting_documents/Draft%20Revised%20AQ%20Plan.pdf

busy roads.²⁴ Not only is the UK failing to meet safe levels of nitrogen dioxide (NO²) concentrations around roads but South Gloucestershire is a local authority already identified with one or more roads with concentrations of NO² above statutory limits. It would seem logical therefore that this study should address this issue especially as there is no accepted safe level for children.²⁵ Similarly:

"If you look at research that relates pollution exposure to adverse health effects they're pretty consistent, showing that these effects are seen in people living 100m, 150m from major roads"

It is not acceptable therefore for residents to be told by a representative of CH2M that there will be no appreciable impact on pollution levels where they live:

".....Cottage is located adjacent to the B4465 Shortwood Road, close to the proposed M4 junction 18a Link Road for the eastern option. At this location the current transport model used for the study indicates that the level of traffic on the B4465 will reduce slightly. This is because a significant part of the traffic currently using Shortwood Road is originating from the Soundwell, Warmley, Hanham and similar areas to route through rural areas to access Junction 18 of the M4. The relocation of this traffic to the new link road more than offsets any increase in use by traffic from the Emerson's Green area."

This comment completely misses the point: this property would be sandwiched between the B4465 and the new dual carriageway link road that would be about 70-80m away – a dual-carriage way the same residents were told would carry approximately 8800 cars a day.

The images below have been produced to demonstrate the potential zones of compromised air quality at 150-metre distances from existing roads and the proposed Eastern route options.²⁶

²⁴ https://www.rcplondon.ac.uk/projects/outputs/every-breath-we-take-lifelong-impact-air-pollution

²⁵ https://unearthed.greenpeace.org/2017/04/04/air-pollution-map-mean/

²⁶ Air quality images and information compiled for PPC by Jacki Berry





Shortwood

As can be seen from these images Shortwood residents would be hemmed in by busy roads and most at risk from the effects of compromised air quality should either of the Eastern route options be delivered. In short, despite its expense this consultation included no environmental assessment for the eastern options, they would cause permanent environmental degradation and habitat loss and bring dangerous air pollution to our doorstep.

Cultural Heritage

The residents of Pucklechurch and Siston parishes are quite rightly proud of the distinctive qualities of their historic environment. Both parishes have designated conservation areas that recognise the collective value of their many designated heritage assets and which emphasise the need to protect not just the individual buildings themselves but the distinctive character of the area as a whole.²⁷ Given that conservation areas are awarded protected status, PPC would expect them to be properly addressed within the study, especially as both of the Eastern options would cut a devastating swathe through one or both of these areas and irrevocably affect their settings. The harm that either of the Eastern options would do is completely unacceptable. It is also at odds with SGC Core Strategy objectives, which seek to recognise and protect the identity and heritage of existing communities and to conserve and enhance the character and distinctiveness of the district's heritage

²⁷ Pucklechurch and Siston Conservation Areas SPDs can be accessed here:

http://www.southglos.gov.uk/environment-and-planning/conservation/conservation-areas/

assets, as well as maximise their contribution to quality of place.²⁸ The delivery of these objectives is supported Policy PSP 17 which recognises that the conservation of South Gloucestershire's heritage assets is a priority for the Council and that:

"Development proposals involving or affecting heritage assets should demonstrate:

- the significance of the heritage asset(s) affected;
- the impact of the proposal on the significance of the heritage asset(s) and their setting(s); and
- how the development will protect, and/or enhance or better reveal the significance of the heritage asset(s) and their setting(s).

The level of detail should be proportionate to the significance of the heritage asset(s) affected and the nature of the works."

To ignore the need to do this even at a concept level places our heritage at risk. It is not acceptable to have downplayed the impact on the historic environment to such an extent so as to render it almost invisible as part of this consultation process.

Although the M4 Junction 18a Link Phase 1 Report references listed buildings and known/unknown archaeology as possible constraints, it only references those relevant to the Lyde Green area and the Western option. Also in spite of PPC representatives requesting the two conservation areas and listed buildings to be clearly marked on a revised version of the Constraints Map, sloppy attention to detail has caused Pucklechurch Conservation Area to be shown incorrectly (presented as it was prior to 2010). Siston Conservation Area is also almost impossible to see as a defined area on the map. For clarification Pucklechurch Conservation Area is correctly shown in plan form as a document on South Gloucestershire's own website.²⁹ The information offered below provides detail relevant to the Eastern options and addresses the imbalance in what has been presented for consultation purposes.

²⁸ Policy CS9

²⁹ http://www.southglos.gov.uk/documents/leaflets/pte100224.pdf

Pucklechurch Parish has a long and rich history of settlement with modern concentrations at Pucklechurch. Parkfield and Shortwood. The oldest extant building in the Pucklechurch is St Thomas à Becket Church (Grade I) which stands at the heart of the designated Conservation Area but there are more than 28 listed buildings (Grade II and II*) and 13 locally listed buildings of importance in the parish. The Eastern options would directly impact a number of these across both Pucklechurch and others in Siston parishes including:

- Grey House, Pucklechurch (Grade II*)
- Moat House, Pucklechurch (Grade II*)
- Barn & attached farm buildings west of Moat House (Grade II)
- 11, Parkfield Rd, Pucklechurch, Pucklechurch (Grade II)
- Dennisworth Farmhouse, Pucklechurch (Grade II*)
- Barn about 30m south of Dennisworth Farm (Grade II)
- Court Farmhouse Westerleigh Road, Pucklechurch (Grade II)
- Barn Court Farmhouse Westerleigh Road, Pucklechurch (Grade II)
- The Old Turnpike Shortwood Road, Pucklechurch (Grade II)
- Lodges, Siston Court, Siston Village (Grade II)
- The Grange, Siston Court, Siston Village (Grade II)
- Siston Court, Siston Village (Grade I)
- St Anne's Church, Siston Village (Grade I)

The damage that both Eastern options would do to the setting of Siston Court would be devastating. Siston Conservation area is described in summary by SGC as follows:

"The character of the area derives from the relationship between the scatter of properties in a predominantly rural landscape of open pastures, small woods, hedgerows and varied topography. Within this rural setting there are two distinctive elements. These are Siston Hamlet – comprising a scattering of cottages, farm buildings and St Anne's Church as well as Siston Court – the Elizabethan manor house and surrounding buildings and grounds."³⁰

The Siston Conservation Area SPD also says:

"The sense of enclosure achieved by a combination of landform and planting contributes significantly to the perception of remoteness and tranquillity, which along with the rural and undeveloped landscape is a defining characteristic of the Siston Conservation Area. It is also essential to retain the surrounding rural and undeveloped landscape in order to protect the setting and views to and from Siston Court and the adjacent historic buildings."

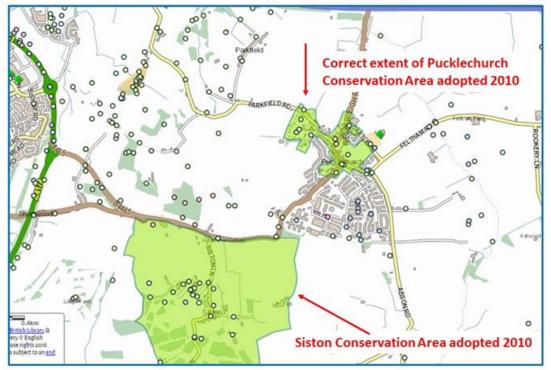
It is hard to imagine what sort of mitigation would be required to disguise a busy dual-carriageway that would cut a swathe across this historically important landscape. PPC believes it would be inexcusable to put this at risk. Those decision makers who will ultimately be responsible for promoting this project would do well to read the Preservation and Enhancement Strategies for both Pucklechurch and Siston Conservation Areas.

Information about the historic environment in South Gloucestershire is not hard to come by. The map shown below (p 30) demonstrates the density of sites of historic and archaeological interest that would be impacted by the Eastern options. It was generated using *Know Your Place – West of England* digital mapping tool.³¹ It also shows the correct boundaries of the two conservation areas.

³⁰ http://www.southglos.gov.uk/environment-and-planning/conservation/conservation-areas/sistonconservation-area/

³¹ http://maps.bristol.gov.uk/kyp/?edition=southglos

Historic & Archaeological landscape



Records reveal a considerable amount of prehistoric and Roman activity in this area including evidence for Roman settlement and industrial activity: this activity may be linked with the Roman road known to run between Bitton to Berkeley situated just a few hundred yards west of Siston Court.³² Archaeological field work also suggests the presence of an as yet undiscovered Roman villa in the vicinity of Moat House Farm and Kings Lane.³³ This is also evidenced by work undertaken in 2000 by Bristol & Region Archaeological Services.³⁴ The potential for the presence of buried archaeological sites along the route of the Eastern options is enormous and recent observations at the Lime Kiln site approximately 350m north west of Siston Court supports this view. Other significant monuments that would be impacted include a cluster of at least 7 Bronze Age Round Barrows straddling Shortwood Rd. near Gingell's Farm.

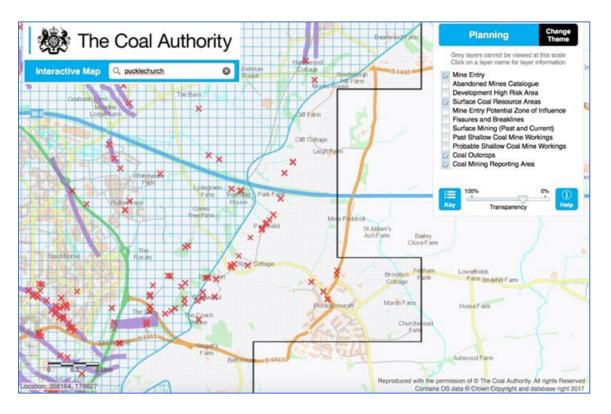
It is possible that this area will also yield evidence of early industrial activity relating to coal extraction. The Bristol Mining Archives plan of the Bristol Coalfield shows the approximate extent of workings in this area: the plan also shows that the southern

³² https://www.southglos.gov.uk/documents/pte070179.pdf

³³ http://reports.cotswoldarchaeology.co.uk/content/uploads/2014/02/0400-Kings-Lane-Pucklechurch-Avon-Eval-94185-complete.pdf

³⁴ Watching Brief undertaken at Moat House Farm BRSMG 2000.38 (Bristol Museum & Art Gallery)

end of the Eastern option link road would cross the area of worked and unworked coal for which it is recommended that mining reports should be obtained.³⁵ It is also possible that the remains of some of the earliest workings of the coalfield are situated in this area and the Coal Authority's records show that workings have been identified well to the east of the edge of the coal basin (as shown below) and includes shafts in Pucklechurch Conservation Area.³⁶



Evidence from the Domesday Book also suggests that early iron mining was taking place in Pucklechurch since it refers to 90 ingots of iron being paid in tax. This is a particularly unusual entry in the Domesday book and therefore of significance but as yet no research has been done to identify where the mines and furnaces were for this activity. It is quite possible they would have been in the area that will be affected by the Eastern route options.

South Gloucestershire's historic environment is a finite resource and we all have a responsibility to maintain it for future generations: PPC urges SGC and the decision

³⁵ http://www.bristolcoalminingarchives.co.uk/sites/default/files/BCA_CoalMap_Oct08.pdf

³⁶ PPC is indebted to David Hardwick (Project Co-ordinator, South Gloucestershire Mines Research Group) fir supplying data on coal mining and industrial activity

makers to take note of conservation principles published by Historic England especially the following statements:

"Our environment contains a unique and dynamic record of human activity. It has been shaped by people responding to the surroundings they inherit, and embodies the aspirations, skills and investment of successive generations.

People value this historic environment as part of their cultural and natural heritage. It reflects the knowledge, beliefs and traditions of diverse communities. It gives distinctiveness, meaning and quality to the places in which we live, providing a sense of continuity and a source of identity. It is a social and economic asset and a resource for learning and enjoyment.

Each generation should therefore shape and sustain the historic environment in ways that allow people to use, enjoy and benefit from it, without compromising the ability of future generations to do the same."³⁷

People and Communities

FAQ 15 suggests that the impact on people and communities will be considered when assessing the scheme options. PPC finds it surprising therefore to find there is just one reference to this within the whole of the Consultation Document and only with regard to Eastern Option B:

"Our initial assessment shows that this route option has a number of constraints and would be difficult to deliver without severe adverse impacts on the local community. However, we have included this alignment in the consultation so we can hear your views."

³⁷ https://content.historicengland.org.uk/images-books/publications/conservation-principles-sustainablemanagement-historic-environment/conservationprinciplespoliciesguidanceapr08web.pdf/

PPC asks why this option was not dropped altogether? Why did the Project Team deliberately choose to consult on this option when the adverse impacts were perceived to be so severe? Many residents have been told by SGC and CH2M staff alike that the only reason this option remained on the table was because it was a 'mistake' or because it had been 'leaked' and that it was highly unlikely to go ahead. This situation is inexcusable and could easily have been avoided. Emails obtained under FOI request reveal that a version of the Consultation Document that excluded this option was drawn up at least a month before the consultation began (19th July). Since several other options were discarded and explained away, why couldn't this one too? The impact of leaving it in so that people could 'offer their views' is plainly iniquitous when other options were removed because of 'adverse impacts on the environment'. The full impact on the current health and wellbeing of those residents most directly affected by Eastern Option B has in this respect been completely disregarded: this is not acceptable when it is clear there were already misgivings about its possible future delivery before the Consultation Document was printed and published. It is also unclear as to why no opportunity was provided for detailed public scrutiny of several options that were rejected because they were deemed to be undeliverable due to 'adverse impacts'. Where is the balance in this?

Data gathered by the Pucklechurch Neighbourhood Plan Steering Group suggests that the Pucklechurch Parish Community Plan findings continue to be true. Living in a rural environment physically separated from other settlements is very important to our sense of community identity and cohesion as is the preservation of the Green Belt.³⁸ An overwhelming 72% of respondents to the Neighbourhood Plan Group's preliminary questionnaire mentioned the sense of community, neighbourliness or the friendly nature of the parish as one of the things they liked most about living here.

"This remains a village with a close sense of community."

"We have a little park at the end of the Rank where all the local children play. We look over fields from the front and back of our house. This means we can

³⁸ http://www.pucklechurch.org/Final_Plan_for_Printing_plus_cover_v8_web_normal.pdf

walk our dog on the fields, walk our children to school safely across the fields and it's a popular place to meet other walkers."

The delivery of either of the Eastern options would result in the fragmentation of our community: they would do damage to its sense of identity and cohesion and put our residents' health and well-being at immediate risk.

There are three main areas of settlement in the parish and it is a complete failing of the Constraints Map that two of these, Parkfield (77 households) and Shortwood (91 households), are rendered almost invisible. All the footpaths and roads between Parkfield and Pucklechurch village will be dissected. Parkfield would effectively be isolated from all essential facilities and amenities in Pucklechurch including the school, the post office, shops, the GP's surgery, pubs, clubs and community groups.

An increase in the number of people driving their children to school to avoid them having to cross a major road would lead to a concomitant increase in pollution and have an adverse effect upon fitness, health and wellbeing. The same busy dual carriageway would cut Regional Cycle Route 17 (used by many people to cycle to work) in half. The lack of detailed thought as to how any of these residents, including the elderly, would practically be able to access the village (even by car) and the inability of SGC and CH2M staff to provide answers to questions about access is unacceptable.

Shortwood would also be effectively surrounded by busy main roads and traffic and, as shown above, will sit in a fog of pollution. At the public exhibition in Pucklechurch, one Shortwood resident said to an SGC officer "you're condemning us to live in a triangle of doom" and the officer's answer was "Yes." Aside from the impact on air quality, Shortwood residents will most likely be subjected to the constant drone of traffic noise emanating from the roads that will surround them, front, back and side. No detail about how any of this would be mitigated is offered.

In spite of the assertion that no buildings would need to be acquired by compulsory purchase, it is hard to see how Companions Haven could continue to exist if a motorway junction and its slip roads were to be built at the Westerleigh Rd bridge:

this is a family home as well as a business. With regard to Eastern Option B, the same would be true for many family homes in Edmund Court, Parkfield Rd and Homefield Rd and it is disingenuous to suggest otherwise. There would also be a clear need to acquire productive farmland: farmers have reported that this would render their farms no longer viable with the associated loss of their homes and their livelihoods as well as severing long-lived associations with the land worked by their forebears for generations.

The Equalities Impact Assessment appears to be a perfunctory tick-box exercise and it fails to make any allowance for the impact that both Eastern options would have on the Gypsy & Traveller community and safe-guarded sites. It is a well-documented fact that Pucklechurch Parish has the highest number of such sites in the whole of South Gloucestershire. Policy CS21 says:

"Existing, authorised sites will be safeguarded and this will apply to public and private Gypsy/Traveller provision. 'Authorised' land includes existing Gypsy and Traveller sites which benefit from a permanent planning permission or alternatively, a temporary planning permission. The term 'safeguarded' means that existing, authorised land for the accommodation of Gypsies and Travellers will be retained until such time as it can be proved no longer a need. In the case of sites with temporary planning permission, the site will be retained, or 'safeguarded' until such time as the existing permission expires and safeguarding status will no longer apply."

It is also a well-documented fact that at present SGC cannot demonstrate a five-year supply in respect of Gypsy & Traveller sites. The following sites and all the families that live there would be directly impacted by the Eastern Options:

- Shortwood Yard, Shortwood Hill, Pucklechurch
- Greengate Yard, Shortwood Hill, Pucklechurch
- Parkfield Road, Pucklechurch (2 sites)
- Siston Lane, Siston (2 sites)
- Moor Paddock, Westerleigh Road, Pucklechurch
- Meadow View, Shortwood Road, Pucklechurch (several sites)

Should Eastern Option A be delivered, the dual-carriage way would potentially destroy the sites at 74 Parkfield Rd and 85a Parkfield Rd or at the very least make them uninhabitable. Homes do not have to be destroyed to be blighted. PPC is already receiving reports of mortgage lenders refusing to lend to prospective house buyers on the basis of surveyors suggesting that if a road to be built the property would be blighted.

Cost

PPC has a considerable number of concerns about the costs associated with each of the options. According to FAQ 15 the schemes options will be assessed with regard to:

"Value for money - are the scheme option costs and impacts justified by the predicted improvements?"

and

"Financial and commercial affordability – could the options be afforded?"

No information is supplied in sufficient detail for anyone responding to this consultation to be able to understand whether this would, or would not, be the case.

The figures provided cannot be challenged as no breakdown has been provided about how they have been determined: the omission of this level of detail leads to a lack of confidence in the credibility of the costs presented for each of the scheme options. Furthermore, this lack of confidence is compounded by documentation that suggests estimates produced for presentation at a stakeholder meeting in May are inconsistent with those that appear in the Consultation Document and then again with those that appear in the draft Final Report of the West of England Joint Transport Study(JTS). ^{39 40} Indeed, it is impossible to tell what elements should or shouldn't be included in the overall costs attributed to the delivery of this project, especially when the extension of the Smart Motorway running east to M4 Junction 18

³⁹

https://www.whatdotheyknow.com/request/416845/response/1023910/attach/7/M4%20Junction%2018a%2 OWorkshop%202%20Final%20Draft%20Presentation%20May%202014.pdf?cookie_passthrough=1 ⁴⁰ https://www.westofengland-ca.org.uk/wp-content/uploads/2017/09/Item-13-Joint-Transport-Study.pdf

appears as a separately costed aspiration within the JTS report. The same is true when trying to compare what is required to be delivered for each option. There is an assumption, for example, that there will be no need to upgrade the roundabouts north of the Dramway for successful delivery of the Eastern options and so these have not been costed in, but this does not take account of the huge amount of traffic that is likely to be generated attempting to get the new junction via Fishponds, Staple Hill and Downend. There is also no allowance for upgrade to roads such as the B4465 and no funding for the link road to Yate has yet been secured.

Email correspondence released by FOI request also suggests there were 'disbenefits' causing issues with the calculations of costs:

"We are currently having issues with the benefit assessment as the modelling work is showing pockets of dis-benefits that are distorting the overall benefit level."

With regard to the calculation of the 'value for money' and 'benefit cost ratios' (BCR) there is a high degree of obfuscation within the consultation documentation. The benefit cost ratios are presented as a statement of fact with no qualification other than how a calculation like this is arrived at (FAQ 25). The only set of figures which is supplied as part of this consultation are the estimated scheme option costs. No results from the traffic modelling, no results from the TUBA package and none of the calculations. It is safe to assume that there were differences in the BCR that are not reflected in the generalised statement provided on p15 of the Consultation Document as there are fundamental differences between all of the options.

Residents specifically asked for this level of detail and some limited information was supplied to by email:⁴¹

"You asked me if there was any more detailed information breaking down the estimated costs of the east and west options. The only information of this

⁴¹ https://www.facebook.com/groups/1940588919512554/permalink/1973511996220246/

nature that we have available to share at this stage is contained in the consultation document and FAQ document."

However, these estimated figures must exist since the email continues:

"In terms of how the option cost estimates have been arrived at, the estimates have been assessed in accordance with the Design Manual for Roads and Bridges (DMRB). Example costs from recent contract prices have also been used to inform the estimates, with allowances included for risk and uncertainty commensurate with the early stage of the project. Land cost estimates have been assessed based on the cost of acquisition of land from similar schemes. Preparation and design cost estimates have been based on the expected level of fee required for the various statutory processes and consultation stages required for a scheme of this type."⁴²

PPC believes that the production and supply of a simple spreadsheet that reflected the estimated costs of individual elements of each scheme would have allayed some fears over the lack of transparency.

FAQ 11 clearly says the best option will not necessarily be the cheapest option but as the predicted scheme costs range from £446 million to £328 million it is hard to believe that this will actually be the case unless proper justification for particular elements of cost versus benefit can be articulated. Also, the imprecise language that has been used to describe 'allowances' made for various elements of each of the scheme options does not instil confidence that all costs or eventualities have been taken into consideration. For example, Bristol water's infrastructure will be significantly impacted by Eastern Option A but not noted on the constraints plan, whilst the relocation of existing underground gas pipelines, such as that impacted by the Eastern Options, is not normally feasible on grounds of cost, operation and maintenance and environmental impact according to the National Grid. With reference to the Western Option, a far better explanation is required for the need to, and therefore the cost of, re- routing the motorway. No evidence is offered, for example, as to the nature of the impacts on adjacent properties at Lyde Green that would require this and so no challenge can be made as to why could these not be mitigated more cheaply than re-routing the motorway. Significantly no alternative design options have been suggested or costed. We are also led to believe by a member of CH2M staff that there is a significant amount of backlog maintenance cost for the M4: this should be deducted from the £126m cost of re-routing the motorway to reflect the saving to the public purse, as this maintenance would not be required.

The draft Final JTS Report says:

"This Transport Vision is intentionally ambitious. It will require an unprecedented level of funding, with a large acceleration of spending from current levels."

It also says:

"The delivery of schemes will be subject to the availability of funding and, in most cases, completion of statutory processes"

and that the delivery of the programme would be equivalent to expenditure of £450 million - £600 million pa, which is a 'step change from historic and current programmes'.

What confidence can anyone therefore have that the funding for any of these options can be delivered and more fundamentally with regard to the delivery of junction 18a, is its huge price tag worth the average saving of just 72 seconds over a one-hour journey? PPC thinks not and certainly not the Eastern options - not at the expense of our environment, our heritage, our community and our health and well- being. Its too big a price and too big a risk for not enough return.

Pucklechurch Parish Council is unanimously opposed to the Eastern options, believe this consultation is flawed and that no case has been made to support the delivery of any of the options when tested against the objectives for the scheme.