

Adran yr Economi a'r Seilwaith  
Department for Economy and Infrastructure



**Objection Ref OBJ0247 - Cycling UK**

Llywodraeth Cymru  
Welsh Government

**File Refs**    **WG/REB/OBJ0247-1- Professor S Cole**  
                  **WG/REB/OBJ0247-2 - Dr S Melia**  
                  **WG/REB/OBJ0247-3 - R Geffen / H Mackay**

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**1. AUTHOR**

- 1.1 I am Matthew Jones. I am the Project Engineer for the Welsh Government. My professional qualifications are set out in my main proof of evidence and are not repeated here.
  
- 1.2 The evidence which I have prepared and provide in this proof of evidence has been prepared and is given in accordance with the guidance of my professional institution and I confirm that the opinions expressed are my true and professional opinions.

## **2. SCOPE AND PURPOSE OF THIS PROOF OF EVIDENCE**

- 2.1.1. Cycling UK have submitted Statements of Evidence in relation to the draft statutory Orders associated with the Welsh Government's proposals for the M4 Corridor around Newport (the Scheme), which has been received via the Programme Officer.
- 2.1.2. The evidence of Cycling UK is provided in three proofs of evidence from different witnesses as follows:
- i. Professor Stuart Cole (OBJ0247)
  - ii. Dr Steve Melia (OBJ0247)
  - iii. Mr Roger Geffen & Mr Hugh Mackay (OBJ0247)
- 2.1.3. My evidence will respond to the points raised in Cycling UK's evidence mainly where it relates to the policy aspects of the Scheme: the M4 Corridor around Newport (hereafter referred to as the Scheme), comprising a proposed new dual three lane motorway to the south of Newport and complementary measures.
- 2.1.4. In light of my Chief Witness role, I will address general points that I consider require a Welsh Government response, however it should be noted that aspects of my evidence interface with the evidence of other witnesses including Stephen Bussell (WG1.3.1), Ben Sibert (WG1.5.1) and Dr Peter Ireland (WG1.7.1). I make cross references to the evidence of these and other expert witnesses where appropriate.
- 2.1.5. I try to limit duplication of evidence given in my own Proof of Evidence (WG1.1.1) but draw on that when appropriate to address points raised by Cycling UK in their evidence.
- 2.1.6. My evidence is presented in the following structure, with a detailed contents provided at the start of the document.
1. Author
  2. Scope and Purpose of this Proof of evidence
  3. Blue Route Alternative Rebuttal
  4. Blue Route Alternative Conclusions

### 3. REBUTTAL – CYCLING UK

#### 3.1. Welsh Government's Consideration of the Blue Route

3.1.1. Whilst the Welsh Government is not promoting or supporting the Blue Route alternative, it is obliged to consider it so that the Inspectors conducting the Inquiry can report on the relative merits to the Welsh Ministers. As such, a detailed level of assessment was undertaken of the 'Blue Route' suggested alternative and that has been published in an Appraisal of Objectors' Alternative Blue Route Proposals Report (Document 6.2.35) dated 14 December 2016<sup>1</sup>. That report should be referred to for a full history and detailed appraisal of the merits and likely impacts of the Blue Route. I address the key issues and points made in the evidence submitted by Cycling UK associated with the Blue Route suggested alternative in this section of my rebuttal.

3.1.2. As set out in section 3 of my Proof of Evidence (WG1.1.1); since the early 1990s, numerous assessments and consultations have been undertaken to develop a solution to the transport related problems associated with the M4 around Newport.

In his evidence at section 80 and 81, Professor Cole states: *'The SAR was purchased by the WG in 2010 to be a part of the M4 relief road. It was surveyed in 2004 to provide such a facility. The Western Mail extract (2004) in Appendix 1 shows the official WAG map of the proposed toll motorway almost duplicating the Blue Route and of which a part was 'Option C' referred to above. It would seem probable that WG is able to provide planning and design specifications documents referring to this proposal prepared at the time...When I visited in 2013, the A4810 SAR [Steelworks Access Road] had been constructed along the alignment of the 2004 motorway proposal. What is not clear is the rationale of the WG in eliminating this option from its considerations in 2003, given this is largely the Blue Route.'* At section 91 Professor Cole goes on to state *'It is of note that an earlier M4 proposal in December*

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<sup>1</sup> Appraisal of Objectors' Alternative Blue Route Proposals (Document 6.2.35)

*2004 used the line of the Blue Route to build a new M4. (See Appendix 1 BBC in references). The WAG (Prof Andrew Davies was the minister) announced the scheme as part of an £8 bn 15-year transport plan. It was to be a public finance (PFI) initiative funded by tolls.'*

- 3.1.3. These statements are incorrect. As I will explain further in section 3.2.29 and 3.2.30 with regard to the purchase of the land required to make the improvements to the A4810 in 2012, the separate protected route for an M4 relief route to the south of Newport has been in place with modifications since 1995, with associated TR111 Notices. The A4810 has never formed part of the protected M4 route. The A4810 Steelworks Access Road scheme involved converting some sections of the former Llanwern Steelworks access road into a public standard dual carriageway, to connect the A48 Newport Southern Distributor road with Junction 23A of the M4, improving access to the Newport Eastern Expansion area as allocated in their Local Development Plan. This included improving access to existing businesses and the planned Llanwern / Glan Llyn strategic residential development. The works also involved the creation of a footpath and cycle way. Works were completed and the A4810 opened to the public in September 2013.
- 3.1.4. It has been acknowledged that the A4810 connection between the A48 SDR and M4 Junction 23A could help network resilience at times of incidents and delays on the M4 around Newport, although the Gwent Police in their statement of support (SUP0207) dated 8 March 2017; *“Any closure of the M4 particularly during day time hours quickly results in grid lock of Newport City and the A48 SDR. This can affect the emergency routes in particular to the Royal Gwent Hospital or movements of any emergency vehicles in the Newport City area.”*
- 3.1.5. Appendix 1 of Professor Cole’s statement references the M4CEM work following the then Welsh Minister’s written statement in July 2009 (which I will address further below). That does not reference any 2004 route. Professor Cole also attached a Western Mail newspaper article dated 8 December 2004, which I assume is the 2004 route that

Professor Cole refers to throughout his evidence. In fact, that 2004 work was a review of options, which later informed the 2006 re-examination of route corridors study, which culminated in a modified TR111 protected route in 2006, along a similar line to the latest 2014 modification along which the scheme is currently proposed. The article itself is clear that the 2004 work was a commitment to an M4 relief road to the south of Newport which aimed to reduce the impact on the Gwent Levels SSSIs but that *“the detail of the system had not been worked out”*; and *“the strategy will be made possible when new powers over rail and transport are passed to the Assembly”*.

3.1.6. The history of the route development and its reviews are described in Chapter 4 of the the Environmental Statement (ES) (Document 2.3.2) at sections 4.3.9 to 4.3.12. Further information about the decision making in the early 2000s is found in Document 4.2.2 – Preferred Route Review April 2006 and Document 4.2.1 – Re-examination of Route Corridors, February 2006. In the latter, it is shown that routes on the line of what is now the A4810 were discarded from the 1992 route selection process onwards. A preferred route for an M4 Relief Road was identified and protected for planning purposes with a TR111 Notice in 1995 and revised in 1997 to take into account local developments. Following appraisal and consultation, the route was modified again in 2006 to take into account the appraisal work and strengthened environmental protections for Sites of Special Scientific Interest (SSSI) (the route was moved north to reduce its potential impact on the Gwent Levels SSSIs) but south of the A4810 Steelworks Access Road alignment.

- 3.1.7. An option to upgrade the A48 Newport Southern Distributor Road (SDR) and A4810 Steelworks Access Road to a 'Newport Expressway' was first considered by the Welsh Government in 2010 in the report 'M4 CEM Strategy, Appraisal and Monitoring'<sup>2</sup>. The purpose of that report was to outline a strategy to emerge from investigation of other potential schemes to improve the operation of the existing M4 around Newport, when the M4 Relief Road was considered unaffordable in 2009.
- 3.1.8. That report described and illustrated on a plan, a 'Newport Expressway', stating that: "During incidents/maintenance works on the motorway, the SAR (Steelworks Access Road, now known as the A4810), A48 SDR upgrading and J28 improvements would provide increased network resilience." However, appraisal indicated that: "Limited reductions in traffic flows on the motorway around Newport may occur, especially during periods of congestion... Unless travel behaviour were to change significantly, even with corridor enhancement measures in place, traffic congestion and capacity problems could be expected to occur during weekday peak travel times with increasing frequency sometime during the period 2018-2024 on the approaches to Brynglas Tunnels."
- 3.1.9. The Welsh Government then decided to progress the M4 Corridor Enhancement Measures (CEM) Programme in 2010, to consider a range of possible measures, as part of a package to address the problems on the M4 around Newport.
- 3.1.10. As part of the M4 CEM Programme, a comprehensive engagement process was launched in September 2010 culminating in a public consultation being held on different options and their associated transport, health, equality and environmental assessments, between March and July 2012 (Document 4.3.7).

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<sup>2</sup> M4 CEM Draft Strategy, Appraisal and Monitoring Report, May 2010 (Document 4.3.1)

- 3.1.11. During this period more than 100 possible measures were considered including public transport measures, non-road building solutions, demand management measures and highway improvement options. Road building options included the consideration of a new road to the south of Newport, works to the A48 SDR and works to the A4810 Steelworks Access Road.
- 3.1.12. It should be noted that the engagement process was wide ranging, involving individuals and organisations across different sectors with an interest in travel in South East Wales. Professor Cole joined an M4 CEM Stakeholder Forum between 2010 and 2013, attending different workshop events and he provided feedback to help the Welsh Government consider different measures.
- 3.1.13. The appraisals undertaken indicated that, of the options available, an additional section of new dual carriageway road to the south of Newport was the Welsh Ministers' preferred solution to address the identified problems, alongside other common measures (including for example improvements to walking and cycling). Analysis carried out during the M4 CEM Programme was brought together and published in a WelTAG Stage 1 (Strategy Level) Report (Document 4.3.15) in June 2013.
- 3.1.14. Of particular relevance to Professor Cole's evidence, the March 2013 Stage 1 (Strategy) WelTAG Appraisal (Document 4.3.17) considered an option known as M4 CEM Highway Option C. That option involved works to the A48 SDR with the inclusion of a number of grade separated junctions between M4 Junction 24 (Coldra) and M4 Junction 28 (Tredegar Park). This option was ruled out, being considered not to be able to sufficiently achieve the objectives for the M4 Corridor around Newport and it attracted many comments of opposition during public consultation in 2012, with concerns about it not sufficiently increasing road capacity on the highway network. Measures to widen the A4810 to dual 3 lanes were also considered during the M4 CEM Programme, as part of the development of a packages of measures.

- 3.1.15. Initiatives in 2013, including discussions between the Welsh Government and HM Treasury/Department for Transport, created potential funding opportunities for Welsh Government infrastructure projects. As a consequence, a decision was taken to further reconsider motorway options to address the transport related problems on the M4 around Newport.
- 3.1.16. Further appraisal was undertaken of options that included the M4 CEM options, motorway options, and complementary measures. The Welsh Ministers determined that a new section of dual 3-lane motorway to the south of Newport, in addition to complementary measures, should be progressed (Document 4.3.17).
- 3.1.17. Appraisal work subsequently informed the development of a strategic draft Plan, outlining the Welsh Government's preferred option for a new section of motorway to the south of Newport (Document 4.4.1), published alongside a Strategic Environmental Assessment (SEA) Environmental Report (Document 4.4.6), which was subject to public consultation alongside other associated assessments (September to December 2013).
- 3.1.18. A suggested alternative was submitted to the Welsh Government in responses to the M4 Corridor around Newport draft Plan consultation, referred to as the 'Blue Route'. The Blue Route was sometimes described as improvements to the Newport A48 Southern Distributor Road (SDR), and A4810 (previously known as the Steelworks Access Road). The suggested alternative was then published by Professor Stuart Cole in an Institute of Welsh Affairs (IWA) paper titled 'The Blue Route: a cost effective solution to relieving M4 congestion around Newport' (December 2013)<sup>3</sup>.

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<sup>3</sup> The Blue Route – A Cost Effective Solution to relieving M4 Congestion around Newport – Institute of Welsh Affairs and Chartered Institute of Logistics and Transport December 2013 (Document 4.5.4)

- 3.1.19. Whilst works to the A48 SDR and A4810 have previously been ruled out as individual solutions as they separately did not fulfil the objectives set for the draft Plan, the combined effect of these proposals was then re-examined as the Blue Route, following the submission of the Blue Route paper by respondents to the draft Plan consultation in 2013.
- 3.1.20. Based on the high level contents of that publication, the Welsh Government and its project team developed three scenarios which it engineered and assessed in order to provide Welsh Ministers with information to inform their decision making as to whether or not to adopt its draft Plan
- 3.1.21. Taking the responses to the consultation into account (Document 4.5.6 and Document 4.5.10), the Welsh Ministers decided to adopt the Plan for the M4 Corridor around Newport (July 2014)<sup>4</sup> (Document 4.5.7) and published the associated Strategic Environmental Assessment Post-Adoption Statement (Document 4.5.13) and other associated reporting. That reporting included A Strategic Appraisal of Alternatives Considered During Consultation Report (July 2014)<sup>5</sup>, which explained that the Blue Route would not address the problems on the existing M4 around Newport, and would create further operational problems.
- 3.1.22. A revised TR111 Notice was subsequently published (Document 4.6.8) in July 2014 to protect a modified Preferred Route for a new section of motorway to the south of Newport.
- 3.1.23. As I set out in sections 3.17 to 3.20 of my Proof of Evidence; following the adoption of the Plan, Friends of the Earth brought a Judicial Review, which was heard by Mr Justice Hickinbottom in March 2015 (ref CO/4433/2014) (Document 4.5.45)<sup>6</sup>.

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<sup>4</sup> Welsh Government M4 Corridor around Newport: The Plan (Document 4.5.7)

<sup>5</sup> Welsh Government M4 Corridor around Newport: The Plan. Strategic Appraisal of Alternatives Considered During Consultation (Document 4.5.12)

<sup>6</sup> R (on the application of Friends of the Earth England, Wales and Northern Ireland Ltd) v Welsh Ministers CO/4433/2014 (Documents 4.5.45 to 4.5.48)

3.1.24. The claim was issued on 23 September 2014 by Friends of the Earth ('the Claimant'). In the claim it was contended that the adoption of the Plan should be quashed because the decision-making process that led to the adoption of the Plan was considered to be unlawful, in that, in a number of respects, it failed to comply with the Strategic Environmental Assessment Directive ("the SEA Directive"). Several sub-grounds were pleaded; but the foundation of the Claimant's case was that the process by which the Plan was adopted failed properly to identify, describe and evaluate all reasonable alternatives (and particularly alternatives that did not involve a motorway being constructed across the protected sites) on a comparable basis to the Plan. In particular the Blue Route (Document 4.5.4), was suggested to be a reasonable alternative, and had been put forward/supported as a suggested alternative by environmental non-governmental organisations during the draft Plan consultation.

3.1.25. Whilst I expand Mr Justice Hickinbottom's conclusions in section 3.20 of my Proof of Evidence (WG1.1.1), in summary he stated:

*"However, forcefully as these submissions were made, I cannot accept them...the foundation upon which Ground 1 is built is fundamentally flawed. The Minister's approach to the identification of reasonable alternatives was not wrong in law: indeed, it was eminently correct..... They used the correct legal test throughout, choosing the option which they considered best met the TPOs as their preferred option and including other options that they considered capable of meeting the objectives as reasonable alternatives. The decisions they made with regard to selection of objectives, the weight given to each objective chosen and the selection of preferred option and reasonable alternatives were all in accordance with the relevant legal tests, rational and otherwise lawful. They explained, giving at least outline reasons (and, in practice, far more), why they had selected their preferred option and reasonable alternatives..."*

3.1.26. Mr Justice Hickinbottom went further to state:

*“In the light of the previous assessment that neither of the two main elements of the Blue Route would be anywhere near capable of achieving the TPOs, it was not irrational not to include a combination of those elements as a reasonable alternative in the SEA Report. In any event, assessment of the Blue Route after the publication of the SEA Report confirmed that the Blue Route was not capable of meeting the objectives...It more than adequately explained why it considered other options would not achieve the TPOs – in short, because none would improve the position with regard to the M4 around Newport which was in essence what the Welsh Government sought to do.”*

3.1.27. Since that judgement the focus has been on project development, in accordance with the adopted Plan (Document 4.5.7).

3.1.28. Professor Cole states in his evidence at section 47e: ‘A relief road is what Welsh Ministers have said they require for the last several years, not a replacement or additional motorway’. The Plan (Doc.4.5.7) is adopted Welsh Government policy that sets out that the Welsh Ministers require a new section of motorway to the south of Newport.

3.1.29. Scheme development has led to the publication of draft Orders and associated documents as listed in 2.1 to 2.5 of the Inquiry Library. The Blue Route has subsequently been suggested as an objector’s alternative to the Scheme as published in the March 2016 draft Orders. I understand that Cycling UK (OBJ0247) is promoting the Blue Route at the Public Local Inquiry, through the evidence of Professor Cole, despite the evidence of Roger Geffen and Hugh Mackay that suggests in its section 5; ‘The congestion on the M4 can be resolved more cheaply and effectively by a breadth of measures other than the construction of additional roads<sup>7</sup>.’ Whilst the Welsh Government is not promoting or supporting the Blue Route alternative, it is obliged to

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<sup>7</sup> In section 10 of their evidence, they suggest a range of public transport and active travel measures.

consider it so that the Inspectors conducting the Inquiry can report on the relative merits to the Welsh Ministers.

As such, a further detailed level of assessment was undertaken of the 'Blue Route' suggested alternative. This was published on 14 December 2016 (Appraisal of Objectors' Alternative Blue Route Proposals, Document 6.2.35) to inform stakeholders in advance of consideration of suggested alternatives through the Inquiry process<sup>8</sup>.

3.1.31. In development of that report, on 4 October 2016 Cycling UK confirmed in email correspondence their intention to advocate the Blue Route as an objector's suggested alternative to the Scheme, clarifying that the Blue Route description is as per Professor Cole's paper 'The Blue Route' (December 2013) and as furthered by the Welsh Government liaising with Professor Cole as 'Scenario 7' (the focus of appraisal in Document 6.2.35).

3.1.32. I therefore consider that the results of the December 2016 Appraisal of Objectors' Alternative Blue Route Proposals report (Document 6.2.35) are wholly relevant to and therefore inform my consideration of the Blue Route and Cycling UK's evidence submitted to the Inquiry.

## **3.2. Responses to Claims about the Scheme and the Blue Route**

### **Accessibility**

3.2.1. At section 34 of his evidence, Professor Cole states: *'The proposed Black Route in effect excludes the integrated use of alternatives... The Blue Route has more connections with local car and public transport, cycling and walking as the junctions all have provision for these other modes'*. At sections 39 and 47f of his evidence, Professor Cole goes further and states: *'The Blue Route provides an increased level of choice for people making journeys within the transport Corridor by all modes between Magor and Castleton, commensurate with demand for alternatives'* and *'It provides better access to/from Newport than does the Black Route'*.

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<sup>8</sup> Appraisal of Objectors' Alternative Blue Route Proposals (Document 6.2.35)

- 3.2.2. As set out in Document 6.2.35, I consider that the Blue Route would not address the identified transport related problems as well as the M4 Corridor around Newport Scheme. It would generally provide better access to Newport than existing, but would only offer little relief to motorway congestion at opening year or in the future. It would relieve less than 10% of traffic on nearly all sections of the existing M4 and would marginally increase the traffic levels on the heaviest trafficked section between Junction 28 and Junction 29. Taking in to account traffic growth, there would be operational problems along some parts of the A48 SDR and A4810.
- 3.2.3. Operational problems would be exacerbated around Newport at times of incidents and delays. This would delay local journeys and exacerbate public transport problems, given congestion on the local highway network has significant impacts on the operation of public transport services (as I demonstrate at section 8.12 and Appendix B of my Proof of Evidence).
- 3.2.4. Whereas at section 19i Professor Cole claims *'when the fire took place in the Brynglas Tunnels in 2011, the Blue Route (A48 SDR) was not at all affected by diverted traffic'*; this is incorrect, as there was severe congestion across the South East Wales highway network as a result. The Gwent Police (SUP207) clearly have concerns as set out in their statement of 8 March 2016, which I again quote for convenience: *'The A48 Southern Distributor is nearing capacity most of the daytime with vehicles negotiating Newport City area and using this as a by-pass road. Any closure of the M4 particularly during day time hours quickly results in grid lock of Newport City and the A48 SDR. This can affect the emergency routes in particular to the Royal Gwent Hospital or movements of any emergency vehicles in the Newport City area.'*
- 3.2.5. Section 3 of my Poof of Evidence (WG1.1.1) sets out the background to the M4 proposals and section 4 describes the history of decision during the development of the Scheme, including junction strategy and access to/from Newport.

- 3.2.6. The proposed new section of motorway to the south of Newport provides an appropriate level of access with Newport, commensurate with its nature as a strategic highway route. The reclassification of the M4 around the north of Newport maintains and improves connectivity across all of Newport, with the additional benefits of a full movements access at Junction 25 for St Julians and Caerleon. Such improvements would not be possible with the Blue Route, as Bryan Whittaker will explain in his evidence.
- 3.2.7. As I set out in section 9 of my Proof of Evidence, the Scheme would be complementary with the Welsh Government's Metro proposals, for example the proposed new Glan Llyn junction has been sited to link the new section of motorway to the new 4000 home, 6000 job community being planned on former steelworks land, a potential Metro park and ride rail facility and the new junction arrangement at Magor/Undy improves access to the Severn Tunnel Railway station. The Blue Route would not improve connections to public transport but would increase severance through Newport by increasing traffic levels along the SDR, A4810 and by grade separating junctions which would impact on Non-Motorised User routes.
- 3.2.8. As I set out in section 10.14 of my Proof of Evidence, measures have been incorporated into the design of the Scheme to help ensure that there would be no significant adverse effects on all travellers, whilst some new lengths of cycleways, bridleways and footpaths seek to encourage non-motorised modes of transport for local journeys. For example, five new public bridleways and one new public footpath would be created, including one providing an off-road link between National Cycle Network Route 4 and Magor (further information relating to all travellers is provided in the Proof of Evidence of Julia Tindale WG 1.10.1). The Blue Route would have adverse effects on all travellers.

3.2.9. Based on the above, it is my opinion that Professor Cole's statement on access to/from Newport is incorrect and that the Blue Route would not afford the benefits to Newport which would be provided by the Scheme comprising the proposed new motorway, reclassification and complementary measures.

### **Sustainability and Sustainable Travel**

3.2.10. Dr Steve Melia in his evidence at sections 1.1 and 2 claims that the Scheme *'is incompatible with the Welsh Government's sustainability policies'*, which reflects the evidence of Roger Geffen and Hugh Mackay in section 3 of their evidence, who go further to suggest that the Scheme would *'contravene Government policies to tackle congestion, pollution and climate change, to improve public health and reduce physical inactivity and obesity, and to improve equality of opportunity'*. At Section 119 of his evidence, Professor Cole states: *'The motorway option is inconsistent with the Welsh Government's sustainable development duty, climate change commitments and aspirations to halt the loss of biodiversity'*; and at section 19n states: *'A new motorway will not contribute to the Government's integrated transport policy.'*

3.2.11. I disagree with all of the above claims made and deal with each in turn below.

3.2.12. A Sustainable Development Report (Document 2.3.11) has been published, which describes how the proposed Scheme aligns to the goals of the Wellbeing of Future Generations Act 2015. In addition, John Davies in his evidence (WG1.23.1) considers the application of the Sustainable Development principle during development of the project and also alignment with the recently published Welsh Government objectives under the 2015 Act, concluding that the Scheme should proceed.

- 3.2.13. As I explain in section 16 of my Proof of Evidence (WG1.1.1); the Welsh Government has applied a Sustainable Development approach throughout developing a solution to the problems associated with the M4 around Newport. Early strategic work considered all social, environmental and environmental factors and involved stakeholders to identify aims and objectives and a long term approach has been taken to considering the transport and wider needs of future generations. The new section of motorway and reclassification of the existing M4, in combination with Metro is a hugely important part of the Welsh Governments vision for an efficient, integrated transport system for Wales.
- 3.2.14. In terms of carbon and climate change, as I outline in section 15 of my Proof of Evidence; carbon emissions, as a result of both construction and the future operation of the highway network with and without the Project in place, have been carefully considered in the context of relevant policy and legislative requirements. Modelling indicates that the total annual user carbon emissions on the south Wales highway network would reduce, albeit by less than 1% in 2022, as a result of the Scheme.
- 3.2.15. A Carbon Report for the Scheme (Appendix 2.4 of the ES) and the Proof of Evidence of Tim Chapman (WG 1.13.1) explain that despite increased levels of traffic on the network at that time, the reduction of stop-start traffic conditions as well as reduced journey lengths on the new section of motorway would make those trips more efficient. Measures to minimise construction carbon are detailed by Barry Woodman (WG 1.6.1) and further consideration of policies relevant to carbon are detailed by John Davies (WG 1.23.1).

- 3.2.16. In addition, the evidence of Michael Bull (WG1.12.1) explains how with the Scheme, traffic redistribution and reduction in congestion would lead to air quality within four of Newport's Air Quality Management Areas improving significantly. On a wider regional scale air quality is also predicted to improve, despite some local increases in air pollutants along the route of the proposed Scheme (acknowledging that pollutant concentrations would remain well within the relevant air quality objectives and predicted increases in nitrogen deposition on habitats would not be significant).
- 3.2.17. In terms of biodiversity, as I set out in section 14 of my Proof of Evidence (WG1.1.1); the development of appropriate mitigation measures has been an integral part of development of the Project and the subject of regular meetings and dialogue with representatives of Natural Resources Wales, Cadw, the relevant Local Authorities, and other stakeholders. Particular consideration has been given to potential impacts on the Gwent Levels Sites of Special Scientific Interest (SSSIs), the River Usk Special Area of Conservation (SAC) and the Severn Estuary SAC, Special Protection Area (SPA) and Ramsar site. This recognises duties including Section 28G of the Wildlife and Countryside Act, the Natural Environment and Rural Communities (NERC) Act and the Habitats Regulations.
- 3.2.18. Further details on the environmental engagement as well as the process of assessing the effects on the different aspects of the environment, the proposals for suitable mitigation and the overall conclusion of the effects of the Scheme is described in more detail by Peter Ireland (WG 1.7.1).

## 3.2.19. In terms of the Blue Route:

- a) Section 10.2 of Document 6.2.35 explains how the Blue Route would offer poor value for money, would impact on more properties and people, would reduce the health of the population and would not address the problems on the M4 around Newport. Therefore it is unclear how the Blue Route would align to the sustainable development principle in not offering a long term sustainable solution to the problems.
- b) Section 8.4 of Document 6.2.35 explains the nature of works for the construction of the Blue Route would be likely to have a relatively low Capital Carbon impact. However, during construction, which would take up to 8 years as an on-line improvement, it would involve a substantial increase in congestion on the existing roads forming the Blue Route, resulting in additional tailpipe emissions. Once constructed, the Blue Route would initially provide some small improvement to congestion problems on the existing M4 around Newport and therefore the user carbon would remain close to that of the Do-Minimum scenario. However, future traffic growth would then see further congestion problems, and thus increase emissions overall. Section 8.3 of Document 6.2.35 explains how more people would experience a deterioration in air quality with the Blue Route, with associated human health problems in Newport.
- c) In section 8 of their evidence, Roger Geffen and Hugh Mackay point out that 'people, especially children, from economically disadvantaged backgrounds, suffer most acutely from the pollution and road danger posed by motor vehicles.' This is clearly a significant concern to the Welsh Government in light that the Blue Route offers poor value for money, increased traffic through an urban area, deterioration of air quality where there are many residential properties, and increased severance.

- d) Section 8.6 of Document 6.2.35 explains how works to the A48 and A4810 would have negative impacts on biodiversity, including to fauna and flora. Further survey information and assessments are required to better understand the potential severity of the impacts and to consider whether mitigation measures could prevent or reduce any adverse impacts.
- e) Section 9.4 of Document 6.2.35 sets out that the Blue Route would see traffic volumes increase along the roads throughout its length. On average traffic volumes along the Blue Route roads would increase by around 42%, although levels are much greater or much lower than that average depending on location. As a result of increased traffic, there would be adverse impacts upon pedestrian and cyclist movements as a result of increased severance issues. The Blue Route would cross several local accesses and crossing points, and alternative routes would need to be provided to reduce severance as a result of increase traffic volumes and junction works along the A48 SDR and A4810 route. In particular the Blue Route would impact adversely on segregated foot and cycle paths along the westbound lane of the A4810, the south-eastbound lane of the A4810 Queensway Meadows and along both sides of the A48 (Spytty Road). There would be limited opportunities to provide new or improved active travel measures with the Blue Route.
- f) Section 9.5 of Document 6.2.35 clarifies that by increasing severance along the A48 SDR and A4810 with the Blue Route, there would be a negative impact upon physical fitness as a result of a reduction in permeability and attractiveness of cycling and walking in particular.

g) For the above reasons, the Blue Route would increase social exclusion rather than help address it. Congestion on the motorway currently affects the roads in Newport, causing delays and making it difficult for those who rely on public transport. The Scheme would address a range of problems and sectors. It would assist businesses that rely on road transport; it would make it easier for employees to get to work both by car and public transport; it would make it easier for everyone to travel within and outside the City by road whether they use private or public transport. For these reasons the Scheme would be likely to reduce social exclusion.

3.2.20. Roger Geffen and Hugh Mackay at section 2 of their evidence claim that the Scheme would *‘foster future patterns of development and land-use changes that would further perpetuate society’s dependence on motor-vehicles’*.

3.2.21. The Scheme would not determine future land-use patterns, which are established through Local Development Plans and the planning system. The Welsh Government’s planning policies in Planning Policy Wales are aimed at securing sustainable patterns of land use.

3.2.22. As I have explained in section 3.2.7 and 3.2.8 of this rebuttal, the Scheme would provide improved access to public transport interchanges, would be complementary to the proposed Metro, and would provide benefits to non-motorised users.

3.2.23. In section 8 of their evidence, Roger Geffen and Hugh Mackay point out that: *‘Promoting walking and cycling would help create cleaner air and safer streets, enabling them to enjoy better health and greater access to employment, education and training, social and other opportunities to enhance their health and wellbeing’*. It is clear that the Scheme would contribute to these aspirations, whereas the Blue Route would hinder achieving those aspirations given its likely adverse impact on human health and active travel.

3.2.24. As I outline in section 3 of my Proof of Evidence, a range of alternatives have been considered in the past, and active travel options have been taken into account. As I have referred to above, Welsh Ministers have decided to take forward improvements to non-motorised user routes as part of the Scheme, acknowledging that they won't address the problems of the M4 around Newport but that they should form part of the Welsh Government's integrated transport solution.

### **Cost and Funding**

3.2.25. Roger Geffen and Hugh Mackay express their concerns in section 2 of their evidence that the Scheme would *'draw heavily on public funds that could alternatively be used to support the creation of high-quality walking and cycling routes'*. Dr Steve Melia in section 2.5.2 of his evidence claims *'The high cost of M4CaN will also have impacts on transport spending in the Newport area and across the rest of Wales. Schemes that could have increased public transport use or active travel will be cancelled, delayed, or never considered in the first place'*. Professor Cole at sections 114 and 115 of his evidence suggests *'There is also an opportunity cost of constructing a motorway if an excessive financial allocation is made to this one scheme. This could be a direct impact on the revenue account, or on the Welsh Government's borrowing limits, thereby precluding other transport projects...Substantial cost savings would be made as a result of opting for the Blue Route - the A48 Southern Distributor Road and the Steelworks Road - rather than a new M4'*.

3.2.26. I disagree with these points. In my Proof of Evidence (WG1.1.1 paragraph 13.5) I explain that funding for the delivery of the Scheme has been explicitly identified and provision set aside within the Welsh Government's published capital plans for the next four years. Allocations are not made beyond a 4 year period but suitable forecasts are in place to enable assurance to be given that the full funding requirements associated with the project are available within a reasonable timescale should the decision be taken to proceed. The

Project would be funded through a combination of UK Government borrowing and Welsh Government Transport capital budgets. We would not be allocating the full amount of our borrowing capacity to this scheme, important though it is. The balance of the current borrowing limit, over £500m, will be available to fund schemes in other parts of Wales from 2018/19 onwards when Stamp Duty & Landfill Tax are planned to be devolved to Welsh Government.

3.2.27. I am aware that Professor Cole has researched and provided an advisory role in public transport in South Wales including an interest in the Metro. I make it clear in section 9 of my Proof of Evidence that the Scheme is considered to be complementary to the Metro proposals and that both projects are certainly not an 'either or' in terms of funding.

3.2.28. The Metro Phase 2 project has been estimated at £734 million and the final cost will be determined during procurement negotiations. Funding includes match funding from the European Regional Development Fund that we expect the UK Government to guarantee. We are engaging with the Welsh European Funding Office and the European Commission as we develop the bid for ERDF funding for the South Wales Metro. We are planning to submit a major project notification (MPN) to the Commission next year and have held a number of meetings with the European Investment Bank's JASPERS programme which have a key role in advising the Commission. The UK Government agreed a contribution of £125m toward the cost of the scheme as part of the deal to transfer executive functions for franchising in 2014. Welsh Government spend will be funded as money becomes available through the agreed City Deal.

- 3.2.29. In terms of the Blue Route costs, Professor Cole claims in his evidence that the Blue Route would cost £380M at sections 12 and 22 but he does not provide any evidence to support his stated cost estimate of £380M nor does he clarify what is included or outside this figure. On the absence of any other information, it is assumed that he is referring to the total budget to deliver the Blue Route for the Welsh Government.
- 3.2.30. At section 21 of his evidence, Professor Cole states '*The land that has been acquired as the SAR was presumably sufficient for widening to a three-lane motorway at a future date should this be needed*'. He also states at sections 80 and 81: '*The SAR was purchased by the WG in 2010 to be a part of the M4 relief road...It was explained to me by WG officials in 2006 and in 2010 that the land acquired was sufficiently wide for an expressway or a 4 lane dual carriageway road with grade separated junctions*'.
- 3.2.31. This is not the case. The acquisition of land under compulsory purchase can only be for land that is essential for the scheme which is being promoted, which was, the improvement of the A4810 Steelworks Access Road. The separate protected route for an M4 relief route to the south of Newport has been in place with modifications since 1995, with associated TR111 Notices. The A4810 has never formed part of that route.
- 3.2.32. In Document 6.2.35, the Welsh Government's cost estimate of £837.8m at Q4 2015 prices is presented in Table 7.3. The Welsh Government's assessment of costs demonstrates that Prof Cole's estimate of £380m is a significant underestimate.
- 3.2.33. At section 19e of Professor Cole's evidence, he states '*Thus the Black Route is a £1.5bn M4 scheme to address 3.5 hours of congestion*.' This statement is incorrect; the proposed Scheme was calculated to cost £1093m in March 2017 at time of publication of draft Orders. In addition, the Scheme would address the identified transport related problems that go beyond the stated 3.5 hours of congestion but

span issues of capacity, resilience, safety and sustainable development. The Scheme would provide economic, social and environmental benefits, acknowledging its likely impacts, as I have set out in summary within section 24 of my Proof of Evidence (WG1.1.1).

3.2.34. At section 78 of Professor Cole's evidence, he states "*In about 2000 the WG announced the redesign and rebuilding of J28 was being planned. Since then no progress has occurred. The cost should therefore not be included in the Blue Route costing as it has been planned as a separate WG project*".

3.2.35. There are two matters in this statement which are incorrect. Firstly, construction work on the M4 Junction 28 improvements started recently in March 2017. The Welsh Government has been developing this scheme for a number of years, including more notably since 2010 as part of the M4 Corridor Enhancement Measures (three years in advance of Professor Cole's Blue Route report publication in December 2013). The proposals outlined support the objectives of the Welsh Government set out in the Welsh Transport Plan 2008 and Wales National Transport Finance Plan 2015. The works are due for completion in July 2018.

3.2.36. Secondly regarding the costs and the status of the M4 Junction 28 improvements, the WG's Blue Route appraisal report (Document 4.3.4) clarifies that all of the Blue Route scenarios listed above take into account planned and committed measures including the Welsh Government's M4 Junction 28 Improvements project. This is also the case for the M4 Corridor around Newport Scheme proposals. Therefore it is clear that both the appraisal of the Blue Route and the Scheme exclude costs of the M4 Junction 28 improvement.

## Programme

3.2.37. At section 29 of his evidence, Professor Cole states that *'This lower cost scheme could be constructed by 2018'*. He provides no programme to substantiate this date. He also states at section 105i of his evidence, Professor Cole states *'No explanation is given for the reason why the construction period for the Blue Route should be longer than for the Black Route (para 4.6.4-4.6.6) given that the Blue Route was planned to be the new M4 line or route over a decade ago. It is highly likely that investigations performed at that time, together with the analysis undertaken of the Blue Route as part of this Inquiry process will enable the overall pre-construction phase to be shorter than that predicted by the WG. The timing of 8 years given for construction (para 4.6.4) is unsubstantiated and is considerably more than I would expect for this kind of development, as shown with comparable roads, for example, the A465 (Hirwaun to Abergavenny)'*.

3.2.38. At section 4.6.6 of Document 6.2.35, the WG's appraisal states that the route could be open by 2031 and provides a summary of the reasons why in sections 4.6.1 to 4.6.6. I will expand upon the procedure which would be followed in the following paragraphs.

3.2.39. The Blue Route suggested alternative to the published M4 Corridor around Newport Scheme has been received by the Welsh Government. As I have made clear earlier in this rebuttal; while the Welsh Government is not promoting or supporting this alternative proposal, it is obliged to consider it so that the Inspectors conducting the Public Local Inquiry can report on their relative merits to the Welsh Ministers. The Inspectors could not recommend in their report that any alternative proposal be adopted, but could advise the Welsh Ministers that an alternative warrants further investigation. In such an event, and if such investigations were undertaken that conclude the alternative be adopted, it would then be the subject of new statutory Orders which themselves would be open to formal objection(s).

- a) In arriving at the date of 2031, the following theoretical Blue Route procedural timescale has been assumed: Following receipt of Inspectors' Report, Ministers announce decision not to proceed with the Scheme and instead to consider the Blue Route: Early 2018.
- b) Procure consultants to undertake WelTAG appraisal and consultation: appointed mid-2018.
- c) Surveys, WelTAG, consultation, preferred route announcement: 18 months; preferred route announcement end of 2019.
- d) Appoint ECI contractor for Stages 3 and 4: Appointed Spring 2020.
- e) Preliminary design and draft Orders preparation; 18 months: publish Orders Autumn 2021.
- f) PLI commence: Spring 2022.
- g) Inspector's Report: Autumn 2022
- h) Commence Design Construction Contract: Spring 2023
- i) Up to 8 years to construct: Blue Route fully open 2031.

3.2.40. The assumed timescale is applicable to the 2008 version of WelTAG, current at the time of writing the Blue Route's appraisal report (Document 6.2.35). A new version of WelTAG<sup>9</sup> which was consulted on between December 2016 and March 2017 may be implemented, which could amend these timescales but is unlikely reduce them and may in fact extend.

3.2.41. This timescale also optimistically assumes that Strategic Environmental Appraisal (SEA) is not required, which would be likely to add a further two years on the above timescale.

3.2.42. Contrary to Professor Cole's statement in section 105i of his evidence, the construction programme of 8 years is substantiated as explained in section 4.6.4 of Document 6.2.35 and further in the evidence of Ben Sibert.

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<sup>9</sup> <https://consultations.gov.wales/consultations/welsh-transport-appraisal-guidance-2017>

**Ability to address the Problems and achieve the Objectives**

3.2.43. Section 111 of Professor Cole's evidence claims *'The main pressure for relieving congestion on the M4 around Newport has come from the business sector in Wales, represented by Federation of Small Businesses, the Institute of Directors, and CBI Wales. However, only the CBI supports the Welsh Government's position. The Federation of Small Businesses supports the Blue route, while the Institute of Directors says it would welcome a scheme which solves the M4 congestion problem and is future-proofed to extend road capacity if required. The Blue Route, in conjunction with the Welsh Government's plan for rail electrification and the Metro, will achieve that.'*

3.2.44. Suggesting that *'The main pressure for relieving congestion on the M4 around Newport has come from the business sector in Wales'* is incorrect. Engagement on the problems, objectives and possible solutions to the M4 around Newport has been ongoing since the early 1990s, identifying the need to find a solution to the transport problems on the M4 around Newport, including issues of capacity, resilience, safety and sustainable development.

3.2.45. My Proof of Evidence (WG1.1.1) at paragraph 22.2 explains that in response to the draft Orders consultation in March 2016, 199 unique correspondence letters or emails were received that clearly express support for the Scheme. Of these, 59 appear to have been written on behalf of a company or organisation. The company/organisation responses include a range of businesses, property agents, utilities bodies and community groups.

3.2.46. Supporters go beyond the business sector in Wales and include officers and members of Newport City Council, officers and members of Monmouthshire County Council, members of Rhondda Cynon Taf County Borough Council, officers of Caerphilly County Borough Council, the Institution of Civil Engineers Wales, Newport Civic Society, Wales & West Utilities, Welsh Football Trust and the Welsh Rugby Union. Those responding with letters or emails of support have generally expressed the view that the proposed Scheme would address the transport related problems on the M4 around Newport and that the Scheme is critical for the Welsh economy in terms of reducing barriers to movement, and attracting investment.

3.2.47. Suggesting that the Blue Route, in conjunction with rail electrification plans and the proposed Metro will address the identified problems is also incorrect. As I set out in section 9 of my Proof of Evidence (WG1.1.1), in light of our most recent progress with the Metro, a December 2016 Updated Public Transport Overview Report again considered the potential impacts of public transport investment on the need for the Scheme (Document 2.4.19). The results reiterate that public transport measures, including those of the Metro, could not sufficiently address the problems associated with the M4 around Newport, only reducing the traffic flows on the motorway by less than 4%.

3.2.48. As I explained in section 4.1.29 above, our appraisal as published in Document 6.2.35, demonstrates that the Blue Route would not address the identified transport related problems and would only offer little relief to motorway congestion at opening year or in the future. Taking in to account traffic growth, there would continue to be operational problems on the highway network.

3.2.49. I continue to agree with the conclusions of the appraisal of the Blue Route and public transport measures as published in Document 4.5.12; even in combination with significant investment in public transport measures, the Blue Route would not provide sufficient relief to the M4 Corridor around Newport.

3.2.50. Section 77 of Stuart Cole's evidence states that *'The Welsh Government's argument here is disingenuous, as the procedures for the Black Route have been pursued vigorously whilst those for the Blue Route have not. This demonstrates not the lack of the suitability of the Blue Route. Rather it is the decision not to have evaluated its uncertainties and risks to the same extent as the Black Route.'*

3.2.51. The Welsh Government has reasonably and lawfully considered alternatives to the Scheme, and afforded significant attention in carefully considering the merits of the Blue Route and its components since 2010. However, the results of various appraisals have and continue to demonstrate that the Blue Route would not address the problems or achieve the objectives of the M4 Corridor around Newport sufficiently, whereas the Scheme would provide a sustainable and long term solution.

#### 4. CONCLUSIONS – CYCLING UK

- 4.1.1. While the Welsh Government is not promoting or supporting the Blue Route alternative, it is obliged to consider it so that the Inspectors conducting the Public Local Inquiry can report on their relative merits to the Welsh Ministers.
- 4.1.2. The Blue Route has been appraised by the Welsh Government and appraisal continues to demonstrate that the Blue Route is not a reasonable alternative to the proposed Scheme and would not perform anywhere near as well as the proposed Scheme in addressing the problems or achieving the objectives of the M4 around Newport. The Objectors' Suggested Alternatives Report (Document 4.7.2) explains how the Blue Route would meet six scheme objectives but all less well than the Scheme (1 to 5, 14) and would not meet nine scheme objectives (6 to 13, 15). This reflects the fuller analysis presented within Table 10.1 of the Appraisal of Objectors' Alternative Blue Route Proposals (p. 55, Document 6.2.35), which summarises the evidence collected in that document against scoring of likely impacts.
- 4.1.3. The 2015 Judicial Review that considered the Welsh Government's treatment of alternatives including the Blue Route found the decisions taken by the Welsh Ministers were rational and lawful.
- 4.1.4. I have demonstrated through my evidence that the statements made by Professor Cole are provided without evidential basis, incorrect or do not properly reflect the procedure of developing transport initiatives through Welsh Government policy including the application of WeITAG at the strategic and scheme levels, with subsequent Scheme development (in accordance with the appropriate guidance e.g. the Design Manual for Roads and Bridges).
- 4.1.5. Contrary to Professor Cole's statement in his section 105I: *'The document has a bias against the Blue Route rather than being balanced. For example the eight years construction plus statutory process. (para 4.6.8). This is one of many unexplained and anti-Blue*

*Route assertions for which little basis appears to have been published.*, there has been a very considerable amount of appraisal and reporting on the many Blue Route options as explained in detail in section 1 of the Blue Route appraisal report (Document 6.2.35).

- 4.1.6. All appraisals of alternatives including the suggested Blue Route have been carried out in an objective and evidenced based manner in line with relevant legislation, policy and WelTAG guidance.
- 4.1.7. The Blue Route appraisal report (Document 6.2.35) was prepared by the Welsh Government following the announcement on 21 June 2016, when Welsh Minister Mr Ken Skates confirmed that: *“The historic consideration of options will be examined, as will all alternative routes proposed by objectors, including the much referred to ‘blue route’... I am mindful of the continued interest in this alternative, and so, to address this, a fresh analysis of the blue route is being carried out and will be published prior to the inquiry. This will look again at scope, cost and traffic modelling and allow people to present their views to the inquiry inspector.”* The report was prepared using the principles of WelTAG as described in its section 1.2.
- 4.1.8. Little or no objective, evidence based argument backed up with analysis has been provided by Professor Cole to substantiate his claims that the Blue Route would address the aims and objectives of the M4 Corridor around Newport Scheme. It has been necessary for the Welsh Government to explore, develop and appropriately appraise the Blue Route. The Welsh Government’s objective, evidence based appraisal of the Blue Route, supported by analysis is provided in Document 6.2.35 and its conclusions given in section 11 of that report.
- 4.1.9. In overall summary, that appraisal (Document 6.2.35) has demonstrated that *‘Whilst it has been demonstrated that the M4 Corridor around Newport Scheme would best address the identified problems and achieve the identified objectives, appraisal has demonstrated that the Blue Route would not address the transport related problems, or sufficiently address the objectives as well as the*

*M4 Corridor around Newport Scheme, although acknowledging that it could offer some positive contributions to some of the objectives’.*