

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



**Objection Ref OBJ6917**

Llywodraeth Cymru  
Welsh Government

**File Ref WG/REB/OBJ6917– Potts-Johnson**

**Response to Objector's Evidence: Benjamin Potts-Johnson**

## **1. GROUNDS FOR OBJECTION**

### **1.1. Details**

1.1.1. Benjamin Potts-Johnson submitted a letter of objection dated 6 June 2017 in relation to the draft statutory Orders associated with the Welsh Government's proposals for the M4 Corridor around Newport.

1.1.2. The Welsh Government understands the evidence submitted to be based on the following:

1. Suggests that the primary causes of traffic congestion at the Brynglas tunnels are inadequate lighting in the tunnels, the close proximity of junctions 25 to 28, and local traffic using the motorway for short stretches; and secondary causes of traffic congestion include vehicles using the filter lane to pass traffic on the left then re-joining, and changes in speed limits.
2. Suggests that traffic congestion in immediate proximity to the tunnels is worse on sunny afternoons because of poor lighting leading to vehicles breaking; and that the solution to the problem is proper lighting.
3. Suggests a large proportion of traffic on the M4 is local traffic which joins at one Newport junction and exits at another Newport junction and only uses the motorway for a few miles and that vehicles joining a motorway disrupt the traffic flow and increase the risk of congestion occurring, as does the difference of speed in these flows of traffic.
4. Suggests that a solution is to use lane 1 as a continuous filter lane for multiple junctions between junctions 24 and 28 westbound and between junctions 29 and the tunnel eastbound, with through traffic directed to use lanes 2 and 3, with closure of the entry slip road at junction 26 eastbound to all but emergency vehicles. Considers this, with proper management, a flow rate of 7200 vehicles per hour in each direction through the tunnels is achievable and is more than sufficient for current demand.
5. Suggests that a solution is to create alternatives for local traffic and much of this local traffic is from the Ebbw valley, and a new station on the existing line at Ebbw Junction and reconstructing the rail line between Pye Corner and Caerphilly would draw significant volumes of local traffic away from the motorway.

6. Suggests the South Wales Metro will contribute to sustainable transportation and every pound spent on an unnecessary new motorway makes the metro less likely to be built.
7. Suggests variable speed limits are of limited use in resolving traffic congestion and the optimum speed limit is a permanent and continuous 60mph limit in both directions between junctions 24 and 29.
8. Suggests solutions outlined together will cost approximately £10m and would resolve the congestion problem in the short term.

## 2. REBUTTAL

### 2.1. Points Raised

2.1.1. Some of the above points have already been addressed in previous proofs of evidence. Others are dealt with by topic by the relevant witness in the following sections, in addition to their general proofs of evidence, to which readers should also make reference in their entirety for a full understanding of the Welsh Government's case. For ease of reference the places where the above points are addressed in this Rebuttal are listed in the table below:

Objector's point reference	Rebuttal paragraph reference	Objector's point reference	Rebuttal paragraph reference
1	2.2.1	5	2.2.5
2	2.2.2	6	2.2.6
3	2.2.3	7	2.2.7
4	2.2.4	8	2.2.8

### 2.2. Matthew Jones (Chief Witness)

2.2.1. Response to **Point 1** (Suggests that the primary causes of traffic congestion at the Brynglas tunnels are inadequate lighting in the tunnels, the close proximity of junctions 25 to 28, and local traffic using the motorway for short stretches; and secondary causes of traffic congestion include vehicles using the filter lane to pass traffic on the left then re-joining, and changes in speed limits):

1. Section 8 of my Proof of Evidence (WG1.1.1) sets out the identified problems on the M4 around Newport, including issues of capacity, resilience, safety and sustainable development.
2. Section 3 of my evidence (WG1.1.1) sets out the background to the identification of the problems, objectives and possible solutions to the M4 around Newport. In particular section 3.7 explains that 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). During this period more than 100 possible measures were considered including network improvements, travel planning, demand

management and alternative modes of transport. These considered works to the Brynglas Tunnels, the closure of M4 junctions between Junction 25 and 28, works to junctions between Junction 25 and 28 and traffic management along the M4 around Newport. As Section 3 concludes, only a new section of motorway to the south of Newport would best address the problems and achieve the objectives.

3. I deal with the specific suggested causes in turn below, where your points are elaborated further.

2.2.2. Response to **Point 2** (Suggests that traffic congestion in immediate proximity to the tunnels is worse on sunny afternoons because of poor lighting leading to vehicles braking; and that the solution to the problem is proper lighting):

1. I am not aware of evidence that supports traffic congestion in immediate proximity to the tunnels is worse on sunny afternoons because of poor lighting. The evidence of Bryan Whittaker (WG1.2.1) explains how traffic congestion at peak times is a common occurrence. Section 7.10 of my evidence (WG1.1.1) refers to the Revised Traffic Forecasting Report (Document 2.4.13 and its Supplement 2.5.2) continues to demonstrate that congestion, with frequent incidents, is a daily occurrence here with flows exceeding 80% of capacity. Future traffic growth will worsen these problems.
2. In fact, section 8.5 of my evidence (WG1.1.1) explains that the most heavily trafficked section of the M4 around Newport is between Junctions 27 and 29 and how congestion, with frequent incidents, is currently a very common occurrence on the existing M4 between Brynglas Tunnels and Junction 29 where traffic flows are approaching peak hour capacity. This indicates the problem of congestion is worse on the M4 sections west of the tunnels at peak times and during incidents.
3. Existing and predicted traffic levels are described in more detail in the Traffic Proof of Evidence of Mr Bryan Whittaker (WG 1.2.1).

2.2.3. Response to **Point 3** (Suggests a large proportion of traffic on the M4 is local traffic which joins at one Newport junction and exits at another Newport junction and only uses the motorway for a few miles and that vehicles joining a motorway disrupt the traffic flow and increase the risk of congestion occurring, as does the difference of speed in these flows of traffic).

1. During the presentation of Mr Waller's objection to the Inspectors, Mr Bryan Whittaker agreed to provide information on the volume of local traffic using the existing M4 around Newport. This is presented in Public Inquiry Question Document 86 (PIQ / 086). That document explains how for traffic joining or leaving the M4 at Junction 27 in the Do Minimum scenario, 22% of trips have both their origin and destination within Newport.
  2. Additional analysis requested by Mr Waller indicates that in the AM Peak, the proportion of vehicles travelling less than 20km is highest between Junction 26 and Junction 28 (17%) and between Junction 24 and Junction 25 (14%). This proportion is lowest east of Junction 24 (7%), and falls to 10% through the Brynglas Tunnels and to the west of Junction 28. A similar pattern prevails in the PM Peak but with slightly lower proportions. That evidence is provided in Public Inquiry Question Document 110 (PIQ / 110).
  3. PIQ / 018 (Traffic Proof of Evidence Clarifications) explains that of the flow through Brynglas Tunnel, 52% of it is through traffic travelling between east of J23 and west of Junction 29, 12% of it is two way traffic joining or leaving at J28, 27, 26 travelling through the tunnels to east of J23a, 24% of it is two way traffic travelling from west of J28 through the tunnels and joining or leaving at J24 or J23a and 12% of it is two way flow both joining and leaving between J23 and J29. Figure 10.15 of the Revised Forecasting Report (WG 2.4.13) makes this much clearer. Note the percentage quoted relate to 2037 Do-Minimum. An equivalent Figure is also shown for the Do-Something (Figure 10.16) in the same report.
  4. Rather than reduce access to the strategic network by closing Newport junctions along the M4, the Scheme would redistribute through (longer distance) traffic along the new route, thereby resulting in free flow conditions around Newport for users of the road network.
- 2.2.4. Response to **Point 4** (Suggests that a solution is to use lane 1 as a continuous filter lane for multiple junctions between junctions 24 and 28 westbound and between junctions 29 and the tunnel eastbound, with through traffic directed to use lanes 2 and 3, with closure of the entry slip road at junction 26 eastbound to all but emergency vehicles. Considers this, with

proper management, a flow rate of 7200 vehicles per hour in each direction through the tunnels is achievable and is more than sufficient for current demand):

1. The Scheme is considered by Welsh Government to be the long term, sustainable solution to the serious problems experienced on the M4 around Newport.
2. As set out in section 3 of my Proof of Evidence (WG1.1.1), with the involvement of stakeholders over many years, more than 100 options to address the problems associated with the M4 around Newport have been assessed and consulted upon. These have included demand management, alternative modes of transport and new or improved sections of road on various routes north, south and through Newport.
3. A junction closure at Junction 26 east facing slips has been previously considered and could reduce traffic by up to 5% through that section based on previous Welsh Government assessment in 2011<sup>1</sup>, which explained that the traffic would reduce through the Brynglas Tunnels but divert onto adjacent junctions and links. This would simply cause congestion on the adjacent junctions and links, so would not contribute to helping address the problems on the M4 around Newport.
4. A dedicated filter lane for the existing M4 would create severe operational problems in lane 2, with associated congestion. There are existing capacity constraints along the M4 now, even along sections with three lanes, and this is expected to worsen in the future. The suggestion would not be feasible because of lack of capacity, whilst it would also not address the resilience or safety problems.
5. As set out above, rather than reduce access to the strategic network by closing Newport junctions along the M4, the Scheme would redistribute through (longer distance) traffic along the new route, thereby resulting in free flow conditions around Newport for users of the road network.

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<sup>1</sup> page 33 of M4 Corridor Enhancement Measures Appraisal Summary Workbook July 2011, <http://m4cem.com/downloads/reports/M4%20CEM%20Stakeholder%20Workbook.pdf>

2.2.5. Response to **Point 5** (Suggests that a solution is to create alternatives for local traffic and much of this local traffic is from the Ebbw valley, a new station on the existing line at Ebbw Junction and reconstructing the rail line between Pye Corner and Caerphilly would draw significant volumes of local traffic away from the motorway):

1. The Updated Public Transport Overview (Document 2.4.19) sets out the public transport schemes that have been included in the M4 Transport Model. In summary the public transport schemes included in the model comprise of Great Western Route Modernisation + Metro Phase 1 related to stations and facilities + Metro Phase 2 comprising of the Valley Lines Modernisation (the final specification will be established through the award of the Wales and Borders Franchise, but for the purpose of the M4CaN model, it is represented as a light rail network to the north of Cardiff Central with heavy rail services retained on the City Line, Vale of Glamorgan, Maesteg, Ebbw Vale and Penarth Lines + Metro Phase 3 including improvements to the Welsh Marches Line but excluding new stations + Great Western Main Line Relief Lines Services which incorporate proposed solutions to line speed and the provision of new stations to enable greater use to be made of these routes in the future.
2. Outside of the transport model, an alternative approach has been developed which assumes further and enhanced rail elements of a South Wales Metro and a strategic Park and Ride site at Llanwern, together with Newport Bus Rapid Transit in order to assess the potential effect on traffic flows on the existing M4 corridor.
3. The combined effect of all the public transport measures results in a mode transfer which represents a significant increase in public transport patronage and it is also recognised that the South Wales Metro will impact a wide range of movements in the region, many of which will be north-south rather than east-west.
4. However, the results show that the combined effect of the public transport measures is to reduce M4 traffic by a maximum of 6% which does not resolve the problems on the M4 and is consistent with the Welsh Governments position that the M4 proposal and the Metro schemes should be viewed as complimentary.

5. This analysis indicates that the suggested alternatives put forward would not address the problems.

2.2.6. Response to **Point 6** (Suggests the South Wales Metro will contribute to sustainable transportation and every pound spent on an unnecessary new motorway makes the metro less likely to be built):

1. 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.
2. 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.
3. 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.

2.2.7. Response to **Point 7** (Suggests variable speed limits are of limited use in resolving traffic congestion and the optimum speed limit is a permanent and continuous 60mph limit in both directions between junctions 24 and 29):

1. The variable speed limit system has improved accident rates on the M4 around Newport but does not resolve the capacity, resilience or safety problems associated with the horizontal and vertical alignment of the existing M4 around Newport, which does not meet modern motorway standards, and the many lane-gain and lane-drops along the route.
2. As a consequence of the ongoing safety, capacity and resilience problems, the system often requires traffic to operate with reduced speed limits, resulting in variations in journey times and associated adverse social and economic impacts. Traffic is often enforced at speeds around or lower than 60mph at peak times or at times of incidents or delays. A permanent 60mph speed limit along the M4 around Newport would not address the capacity, resilience or safety problems on the M4 around Newport.
3. As I set out in section 12 of my evidence (WG1.1.1) the Scheme would provide a new section of motorway designed with an associated speed limit of 70mph. With the Scheme, reclassification of the existing M4 as a trunk road, or 'A' road, would allow changes to be made to enable traffic management, safety and revised access arrangements. Reclassification would include works to reopen the west facing slip roads of Junction 25 (Caerleon), improving access to Caerleon and St. Julian's areas. This would improve accessibility to northern Newport. The existing Variable Speed Limit would continue to operate when required along the reclassified M4 between Junction 24 (Coldra) and Junction 28 (Tredegar), with a maximum speed limit of 60 miles per hour imposed at the Brynglas Tunnels for safety reasons (as opposed to 70mph elsewhere).

2.2.8. Response to **Point 8** (Suggests solutions outlined together will cost approximately £10m and would resolve the congestion problem in the short term):

1. The Welsh Government has reasonably and lawfully considered alternatives to the Scheme. However, the results of various appraisals have and continue to demonstrate that the suggested alternatives 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.

2.2.9. I confirm that the statement of truth and professional obligations to the inquiry from my main proof still applies.