

## Environment and Sustainability Committee

E&S(4)-10-14 paper 1

**Commentary by Professor Stuart Cole, Emeritus Professor of Transport, University of South Wales, on the Welsh Government Response to queries raised by the Environment and Sustainability Committee, 13 November 2013**

The Committee requested a commentary on the Government's Response to queries set by the Committee in November 2013. This is set out below under each of the questions / answers.

### Q1

The public transport improvements examined in the M4 Corridor Enhancement Measures Public Transport Overview February 2013 by the date of its publication could not have foreseen the scale of the Metro proposals in the Metro Impact study October 2013 nor the subsequent work by the internal team at Welsh Government.

The scale of public transport investment envisaged by the Metro study is £1.97bn and the electrification of the GWML and Valley Lines could not have been foreseen. Indeed the Consultation document says '*this draft Plan does not include public transport measures because the Welsh Government has commissioned a separate study and report on proposals to develop a metro system for South East Wales*'

It is not clear why two such major public transport investment programmes would not be taken into account and why the analysis of relief road options was presented when within months the Metro and electrification plans would be available (please see Blue Route Report page 10 – 11).

The answer makes clear that the draft Plan for the M4 Corridor around Newport is compatible with and will complement the both the South East Wales Metro and rail electrification. The essence of the integrated transport

policy announced consistently by the Government is to consider compatible and complimentary options as one and then determine the allocation of expenditure on differing solutions.

That integration is not apparent here. Consequently the traffic forecasts (see Q8) should take all public transport options into account so evaluating road, Metro and rail options in parallel.

## Q2

Option C is not the same as the Blue Route option (Members have a copy of my report). Option C takes west bound traffic onto J24 (the Coldra) before diverting it off the M4 onto the A48. J24 is already operating over capacity and a cause of congestion in the morning and afternoon peaks. Therefore using it as an M4 diversionary route is inappropriate. This makes even a grade separated junction version of Option C inappropriate.

Congestion on the M4 is not only caused by the Brynglas tunnels but also the traffic volumes associated with entry / egress at J24 and J26 (High Cross). The Blue Route proposes diverting traffic from / to the M4 at J 23a thus avoiding the congested section of the M4.

The WelTAG evaluation process and the CEM Consultation (in which I took part) was correct in recommending that Option C should not be taken forward for further appraisal.

But of course Option C is not the Blue Route which makes use of a length of roadway purchased by the Government in 2012 (see Q3)

## Q3

The Steelworks Road (included in the Blue Route) was purchased by the Welsh Government from Corus Steel in 2010 for the purpose of building a 7km stretch of the – at the time – proposed M4 relief motorway. When

purchased it has a land width sufficient for a six lane motorway standard roadway with hard shoulder and room for slip roads and grade separated junctions. There would then be a spine road within the development to facilitate access along that development

The Government response refers to an '*upgrade of this road to motorway standard..... would involve considerable land and property acquisition*'. The question which remains unanswered in the Government's Response therefore is – who authorised the construction of the current A4810 in its present state as a dual carriageway local road rather than its purchased objective of a motorway. One presumes the Government has information on how a piece of land sufficiently wide for a 6-lane motorway when purchased has shrunk to a piece of land which requires further purchase of land to achieve that same objective. It is worth examining a piece of BBC Wales Today film presented by the BBC business correspondent Nick Servini, broadcast in 2010 (available on U-tube under M4 relief road 2010).

It is later in the Response described as the 'Steelworks Access Road *'with roundabouts or traffic signal controlled lights to provide access to the steelworks and the housing developments along its western length.*

This road formation was not the original intention. The plan in 2006 when the road was first identified and in 2010 when it was purchased was to have two grade separated junctions to serve the steelworks and the distribution centre; and the development of the closed section of the steelworks. At the time this was discussed as a possible airport site or for housing. This site would have been suitable for both functions as it sits adjacent to the GWML (with appropriate park and ride facilities) and to a proposed M4 relief road.

The response also refers to not proposing this option for consultation due to the subsequent reduced accessibility to the existing commercial and industrial areas served by this road and the planned 4000 houses at the Glan Llyn site. One can only suggest that the original papers relating to the planning of this road were not referred to as they would have shown exactly how all requirements – M4 relief road and the existing and planned land uses

- were to be served. If they were and ignored it is for the Committee to draw its conclusions

The background to the Steelworks Road is dealt with in more detail in the Blue Route report.

Park and Ride facilities on the GWML are suggested at two key locations along the Steelworks Road with the objective of diverting traffic from the M4

Q4

This is best dealt with by those with more knowledge than I in this area

Q5

This is best dealt with by others

Q6

This is best dealt with by others

Q7

The WelTAG strategic level process has been applied by the Government to the draft Plan (i.e. Black, purple and Red routes) but not to all '*Reasonable Alternatives*' referred to in the Government's Response. The strategic level process was applied in the preparation of the Blue Route (p 9). However this was not taken forward for a WelTAG strategic (please see Q2 and Q3 above) and the Outline Business Case

The draft Plan has (if I interpret the Response correctly) been taken through the Strategic Outline Case and the Outline Business Case of the three stage Transport Business Case as required by HM Treasury for all major capital investment schemes

This would indeed provide details of the project's overall balance of benefits and costs against objectives. The Full Business Case will examine the business and financial rationale and returns in greater detail.

This last stage will also examine how the scheme is to be funded. If borrowing is required whether it will be approved by HM Treasury and more importantly at what level of borrowing – i.e. the level of borrowing which HM Treasury will approve based on three revenue streams which the Welsh Government can show are available (Please see note on funding below)

I have not had the opportunity to examine the presentation to the Finance Committee and the level of Benefit / Cost Ratio (BCR) shown there. I would be happy to do if the Committee wishes to have a commentary.

## **Q8**

The data, assumptions and causal variables issues has been raised in my Blue Route report. I would refer members to that Report (p 12 – 15).

In mathematical terms the TEMPRO traffic simulation model is perfectly acceptable. The issues are the assumptions made and the causal variables used.

The Blue Route explained the views on causal variables which should have been included.

The Government Response suggests that there has been a general flat profile of traffic flows on the M4 since 2000 to 2012. (Please see Figures 4 and 5 in the Consultation document). The Response then suggests that traffic flows are back to the pre 2005 pre-recession level. But these figures show that 2005 was no different to 2000 nor to 2012. The dip in 2010 is a deviation due to road works. However the general trend has been flat and there is no evidence to show that traffic volumes have yet risen in the period 2012 – 2014. Yet the forecast has already begun to show a growth in flows. This position should be compared with the graph in the Blue Route Report p 12.

This shows the importance of using the most appropriate causal variables and value assumptions in traffic forecasting

Professor Phil Goodwin will, I know, be able to shed further light on this process in his evidence.

The reference to Professor Peter Jones' work published in 'On the Move' has been commented on by Professor Jones as being an inaccurate quotation. I understand that Professor Jones has written to the Committee on this.

The extract from the DfT report 'Action for Roads: A network for the 21<sup>st</sup> Century, July 2013' is of course subject to the commentary on DfT forecasts in the Blue Route report p 12.

### **Traffic forecast conclusion**

The conclusions to be drawn on future trends not peculiar to this project but applicable to most British and European Union road projects are:

- The presumption that car mileage has peaked arises from contrasting trends of reduced car usage in London; and increases in rural areas. It might be suggested therefore that an area such as the Cardiff, Newport (and Valleys / Vale) and Bristol could be in between those two extremes
- After the recession ends, will there be a lower level of car usage in absolute terms and will the rate of increase be similar to that in the immediate pre - recession
- The forecast outcome (in *M4 Corridor around Newport*) does not reflect the recent trend and show a sharp uplift from 2012 to 2030 of 20%. An average growth of just over 1%
- The assumptions are based on economic activity and car ownership rather than projected changes in modal split with no interpretation of the impact of major rail investment.

- It is the uncertainty of the projections as suggested here and by the President of the Institution of Civil Engineers (ICE) Professor Brian Clarke. Professor Clarke made two key points at the National Transport Conference in Cardiff (September 2013) – (a) we are not sure if private motoring has peaked and (b) we are not sure if the trend in reduced driving by young males will continue
- It is uncertain if the peak of car usage has been reached; that situation is contested, as the discussion over the Blue and Black / Purple Route options shows. A resolution needs to be achieved before the decision to build the Black / Purple Route or the Blue Route
- The main drivers of the growth on car use – income, prices (e.g. fuel, competing public transport), population size and projections have not changed in any major way.
- Car usage is likely to grow following economic recovery or increased consumer confidence but at a declining rate but in proportion to population change through the 30 – year forecasting period
- Two large, respected business groups in Wales the Federation of Small Business (FSB) and the CBI both recognise the need for additional road capacity around Newport. The CBI refers to a M4 relief road being their first priority. The FSB specifies a grade-separated A48 / Steelworks Road as being sufficient capacity and investing a large proposition of borrowing in one scheme is not in the best interests of the Welsh economy. The Freight Transport Association has also stated their support for the Blue Route.

### **Note on the context of Welsh Government Investment and Borrowing**

This is not a direct comment on the Government's Response but puts the availability of transport investment funds into the national context

Many of the public sector transport investment decisions, negotiations and deals (in particular with the Westminster Government) have delivery based on robust analysis before approval can be given by HM Treasury.

The Severn Bridge tolls should transfer to Welsh public ownership in 2018 and from Wales' point of view, enable the Government to reduce or abolish them and thus remove one discouragement to inward investment.

The Government could of course retain the tolls at their present level thus providing a revenue stream for some of the capital schemes it wishes to bring forward. The £80 m current toll income will finance borrowing within HM Treasury guidelines of £1.2 bn over 30 years. The second question of why so far in advance, is the time it takes to plan, procure and fund a major infrastructure scheme.

There are several major schemes where 2018 is a key date – electrification of the south Wales rail network to Swansea and the Valley Lines is vital for future connectivity in the south Wales economy and should be complete in terms of ‘putting up the wires’. Network Rail will borrow the capital and be repaid by the Welsh and Westminster governments but the latter should be paying a greater proportion as the public body responsible for railway infrastructure in Great Britain.

The new Wales and Borders franchise begins in 2018. The lead time for either buying new electric trains or getting the best choice of leased stock (both electric and diesel) has already begun. Other franchises being renewed in 2018 will be competing for both types of trains. The existing 2003 no – growth franchise negotiated in London proved to be totally inadequate with demand increasing by over 8% per annum for the last ten years

The planning and negotiating of a new rail franchise requires expertise (both specialist and well paid) to face the bidders all of whom have that expertise and it must be negotiated by the Welsh Government with England’s Department for Transport being but a co–signatory.

But before any move is made to procure rolling stock an analytical process has to determine:



- Future passenger demand and revenue growth on the different lines with different travel patterns; and the risk allocation on revenue between Government and train company
- the train capacity required , where the balance of under use (and over-spending) or under capacity on commuter lines
- the frequency of service; on which routes these trains should operate and where they should stop
- Should the Government buy / lease new trains (as do so many other parts of Scotland and England and which Wales also deserves)) or should they procure cheaper second hand trains
- The location of the depots and the construction of an electric train facility at Cardiff, which will determine maximum operating efficiency

This process and subsequent negotiations have to be completed by 2015 if the Government is to avoid the west coast main line franchise debacle.

The proposed Metro on which the Transport Minister has begun the development work shows a commitment to an integrated transport policy if it and rail electrification are considered alongside the decision on how to relieve traffic congestion on the M4 at Newport which cannot be put off any longer.

That discussion revolves around two options – the Government’s preferred but environmentally sensitive Black route costing £930m by – passing Newport; and this columnist’s Blue Route expressway proposal at £380m which significantly upgrades existing roads with economic links into the city.

The Government’s borrowing facility agreed with HM Treasury last year will have limits imposed based on the Welsh Government’s revenue stream from taxation, possible tolls and from the Block Grant.

Within this limit will have to be funded the M4, the A 465 east of Hirwaun, sections of the A55 in north Wales and lesser road improvements with a significant total expenditure throughout Wales. Residents of north Wales wish to see their main line electrified but it is uncertain who will fund that. .

Cardiff Airport is a significant investment for a Government. The success of its five year plan (by 2018) depends on new airlines and destinations, the provision of the Cardiff Airport Express service, consideration of a new road from junction 34 on the M4 and a direct rail link

It is unfair to expect the Welsh Government to achieve these investments so essential for the Welsh economy without a clear picture of its future finances from HM Treasury but our Government too must be clear on what it has set out to achieve.

SC

**March 2013**