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For the attention of Jeremy Callard

Dear Jeremy,

HEREFORDSHIRE LOCAL DEVELOPMENT FRAMEWORK TRANSPORT MODELLING AND APPRAISAL

Further to your letter dated 19th June 2013, the Highways Agency is pleased to offer these observations in respect of the development of the transport evidence base for the Herefordshire Core Strategy and the associated forthcoming updating of the Hereford transport strategy.

General Observations

As you will recall, the Highway Agency previously considered the earlier 2010 submission draft core strategy to be 'unsound' on the basis of the lack of evidence in relation to strategic transport matters. In particular, the plan contained a lack of clarity with respect of the operation of the A49(T) and a potential relief road for the main A49(T) transport corridor and the necessity of such a scheme for plan delivery.

On 10 January 2013 the Highways Agency confirmed by letter that it was content with the programme of evidence building proposed by Herefordshire Council. On 19 February 2013 the Highways Agency, in the light of progress to that date, indicated that *"the previous position of objecting to the local plan on the grounds of no evidence is no longer appropriate. However, this position is of course dependant on the Council continuing to progress the work required to produce a suitable transport evidence base."*

At the time of the formal consultation process regarding the submission draft Core Strategy (which closed in April 2013) the Highways Agency made the following observations *"Clearly, until this work is complete, we must reserve our position in terms of the acceptability of the proposed level and location of development and required infrastructure improvements – but we can nonetheless provide some general comments regarding the suitability of the intended strategy and its potential implications for the Strategic Road Network."*

Policy

The current Highways Agency policy on engagement with the land use planning process and analysis of implications of traffic impacts of developments on the Strategic Road Network is contained in DfT Circular 02/2007 "Planning and the Strategic Road Network". A draft replacement for Circular 02/2007 has recently been consulted upon by Central Government but the implementation of new guidance has not yet occurred.

Circular 02/2007 sets out that the Highways Agency will assist local planning authorities in assessing the implications of their spatial planning documents on the Strategic Road Network and that the preferred approach to management of development traffic impacts shall be through sustainable modes. Infrastructure provision should be a final mitigation option.

The Highways Agency's interpretation of Circular 02/2007 is guided by the tests set out in the National Planning Policy Framework in relation to plan 'soundness' and the duty to cooperate with named key stakeholders.

Evidence Base Comments

The first outcomes of that evidence building process have now been reviewed by the Highway Agency. The analysis is based on a series of agreed scenarios that assess the transport impact of the planned growth as set out in the Core Strategy.

A 2012 base year multi-modal transport model has been developed. The Highways Agency is broadly content that this model is a reasonable reflection of the current transport scenario in Hereford with one minor exception regarding the calibration of the highway model in respect of the A49(T) corridor in PM peak hour only. Whilst this will need to be addressed in due course by the Council the Highways Agency is happy to confirm this will not affect the strategic analysis undertaken at the current point in time.

The key parameters for analysis include:

- Future year A49(T) journey times
- Future year RFC (flow / capacity) indices for A49(T) junction
- Future year total vehicle flows across inner and outer cordons, north/south and east/west screen-lines;
- Flow volume differences between future year scenarios

The future year for the modelling has been set at 2032 to reflect the end of the current Core Strategy. The analysis in 2032 has considered the following issues against two key scenarios (maximum use of non-highway transport interventions along with highway interventions committed in 2013: Do Something 1) and a "with strategic transport interventions" scenario including a western alignment for a relief road: Do Something 2). These scenarios were agreed to allow analysis of the following issues:

- Can Do Something 1 handle high growth demand, without the relief road, but with maximum non-highway transport?
- If no – can Do Something 2 handle high growth demand, with the relief road?

- If yes – can Do Something 1 cope, if there is only low growth demand, without a relief road?
- If no – is the Do Something 2 relief road strategy, also required with low growth demand?

These strategic scenarios and the criteria for summary analysis thereto are acceptable to the Highways Agency. The Highways Agency has also agreed the principles of traffic generation for development and background traffic, the committed highway schemes, the sustainable modes and public transport interventions proposed, and the treatment of Park and Ride proposals in the mode.

At this stage the Highways Agency has received and reviewed a summary report of this strategic level analysis. The comments made below are subject to a full audit of the future year modelling outputs but are intended to give sufficient clarity for the Council to move forward in the process of considering whether to submit the Core Strategy to the Secretary of State for Communities and Local Government for examination.

Modelled Trip Growth

The Highways Agency notes the growth in trip numbers in a high growth scenario as 21.3% (AM peak) and 23.9% (PM peak) above base year conditions and growth in highway only trips of up to 14.7% (AM peak) and 14.9% (PM peak) in the Do Something 2 high growth scenario.

Modelled Journey Times

The journey time analysis presented by the Council considers the A49(T) corridor has been measured over a distance of 7.4km, from south of B4399 to north of A4103. This section of route includes the potential access points for a western relief road for consideration in the Do Something 2 scenario.

In the Do Something 1 scenario journey times on the A49(T) corridor are shown to increase by on average (two-way) by 38.1% (AM peak) and by 29.2% PM peak. Absolute delay is shown to increase by 8 minutes in each direction along the A49(T) corridor. In the Highways Agency view this represents a severe detrimental effect to the ability of the A49(T) to function as an element of the Strategic Road Network when a high level of growth is assumed and the Core Strategy development is in place. The low growth Do Something 1 scenario indicates similar overall results which suggests that the presence of Core Strategy traffic development related traffic on the A49(T) is the primary cause of increased delay.

In the Do Something 2 – with relief road scenario – journey times for through traffic (i.e that making a strategic journey to/from locations outside the Hereford urban area) reduce when compared to 2012 base traffic journey times by 8.8% (AM peak) and 30.8% (PM peak). In this scenario traffic on the current A49(T) corridor remains subject to additional delay above current conditions – with an average 37.7% increase in journey time (AM peak) and 23.7% (PM peak).

On the basis of this journey time analysis the impact of the Core Strategy on the A49(T) corridor with even with maximum sustainable modes, public transport and committed highway schemes is significant. For strategic traffic (i.e that with origins and destinations outside the Hereford urban area) in a high growth scenario the journey time gains made by the inclusion of a relief road are significant. In this scenario some limited benefit to the A49(T) corridor of reductions journey times compared to the Do Something 1 scenario of 0.4% (AM peak) and 5.5% (PM peak) occur.

Even in the low growth Do Something 1 scenario journey times are adversely affected to a point at which strategic interventions e.g. a relief road are necessary to secure manageable operation of the A49(T) corridor.

Screenline Traffic Volumes

The Highways Agency notes the information provided and the increase in average traffic (PCU) volumes crossing the screenlines of 0.7% between the Do Something 1 and Do Something 2 scenarios and the marked reductions in PCU volumes at the inner cordon (AM and PM peaks) and the East – West cordons (PM peak)

Junction Analysis

The junction analysis presented identifies a number of junctions already experiencing operational challenges in the base year scenario in the worst performing arm. This should not be considered a true reflection of absolute capacity but rather a location where improvement may be necessary.

In the Do Something 1 scenario i.e. without relief road a small number of junctions (e.g A49 / relief road / Homer West P&R Junction and A4103 Roman Rd / relief road) which connect to the relief road are shown as having capacity analysis RFC's presented. As a relief road is not in this scenario this is assumed to be an error in reporting.

On the A49(T) existing road, in the AM and PM peaks, the number of junctions with an RFC greater than 100%, are as follows:

- Base 2012 – AM 4 junctions; PM 4 junctions;
- Do Something 1 (high growth) 2032 – AM 6 junctions; PM 5 junctions;
- Do Something 2 (high growth) 2032 – AM 5 junctions; PM 5 junctions;
- Do Something 1 (low growth) 2032 – AM 6 junctions; PM 3 junctions.

The lack of improvement in the Do Something 2 scenario is noted as being due to the reallocation of road space to provide bus priority for park and ride services. The Highways Agency has previously made informal comment on the use of park and ride as a demand management tool and the aspirations of developers to provide park and ride sites.

This information suggests that the Core Strategy may trigger the need for local junction improvements which are beyond the level of detail in the strategic highway model to assess.

Junction Delay

The analysis presented by the Council shows that significant delay at individual junctions occur as follows:

- Base 2012 – AM 0 junctions; PM 1 junction;
- Do Something 1 (High) 2032 – AM 2 junctions; PM 1 junction;
- Do Something 2 (High) 2032 – AM 3 junctions; PM 2 junctions;
- Do Something 1 (Low) 2032 – AM 3 junctions; PM 2 junctions.

Again, the Council's advisors suggest that the presence of park and ride bus priority in the Do Something 2 scenario imports delay due to reallocation of road space to allow for significant bus priority to make park and ride journey times attractive compared to car.

Next Analysis Steps

The Highways Agency view is that there are a series of further transport modelling activities which must be completed before the Core Strategy can be fully evidenced in transport terms. The Herefordshire Council commitment to produce this further work is welcomed by the Highways Agency as it will allow an agreed position to be reached between our organisations in respect to the transport evidence prior to the Examination in Public of the Core Strategy commencing. The Highways Agency also believes that pro-active work at this juncture will allow for an early revision of the Hereford transport strategy. Key elements of this work are considered to be:

- Additional validation of the 2012 base highway model A49(T) journey times in the PM peak as recorded above;
- The production of a 2032 Do Minimum Scenario for comparative purposes;
- Full reporting of future year network performance parameters including highway model, public transport model and sustainable modes model reporting.
- Consideration of phasing of transport mitigation measures in response to the Core Strategy's land release proposals
- Agreement on a process to assess and manage the transport implications of Core Strategy developments outside the Hereford urban area. At this stage the level of development proposed suggests that the development industry should lead on making a strategic analysis of such developments when proposals are brought forwards.

Delivery Mechanisms

The Highways Agency considers that the establishment of co-operative mechanisms for delivery of the Core Strategy's transport infrastructure is essential to allow pro-active release of growth in the County.

At this stage of the process of plan and infrastructure development it is inappropriate in the view of the Highways Agency to conclude whether a relief road would be adopted by the Highways Agency or indeed whether the 'de-adoption' of the current A49(T) would

occur in such circumstances. The issues of design standards and scheme promotion (to include securing the necessary statutory orders / powers) for a relief road will need to be resolved. At this time it is considered by the Highways Agency that, in view of the Core Strategy indicating a relief road as "essential" for delivery of the Plan, the council would need to lead on delivery of such a scheme.

The delivery of other transport mitigation schemes should be led by the Council although development related improvement schemes coming forward for the existing A49(T) will need to be progressed through the Highways Agency's usual process for developer funded schemes. In that light, the Highways Agency has previously commented on the Draft CIL charging schedule in the recent consultation and would expect to be fully involved in the CIL process when allocating CIL to highway projects which have implications for the operation of the A49(T).

It is understood that the Council has made submissions to the Local Transport Body for devolved major transport scheme funding. The Highways Agency is an associate member of the Marches Local Transport Body and has a keen interest in submissions made by the Council. The Highways Agency anticipates that the Local Transport Body will invite comment on the proposals made by the Council.

The commitment to the establishment of a Board to manage the development of the wider Herefordshire transport strategy (and individual elements within that strategy) and the Core Strategy transport interventions are welcomed by the Highways Agency. The Highway Agency expects to play a full supporting role in the operation and decision making of this Board.

Highways Agency View on the Core Strategy as at June 2013

The evidence currently presented has emerged from the development of an updated multi-modal transport model for the Hereford area.

The effect of development on journey time, traffic volumes and junction operation on the A49(T) corridor indicates that a relief road is a practical response to the traffic impacts identified and will allow release of the land proposed for development in the Core Strategy. The Highways Agency will proceed to undertake a detailed review of the transport model outputs to confirm this view. However, at this time the Highway Agency's view on the evidence available is that it would be appropriate for the Council to submit a Core Strategy including the strategic view that a Hereford relief road is necessary for delivery of the Core Strategy. The detailed alignment of such a road is a matter for the Council as the Highways Agency is of the view that the Council should be the promoter of such a scheme given the links established to Core Strategy delivery.

The Highways Agency has identified a number of further technical steps that will need to be completed prior to the Examination in Public of the Core Strategy to allow the presentation of a robust transport evidence base.

The Highways Agency agrees that the establishment of a Board to manage the development of the wider Herefordshire transport strategy (and individual elements within that strategy) and the Core Strategy transport interventions are essential to

delivery of the Core Strategy. The Highway Agency expects to play a full supporting role in the operation and decision making of this Board.

Yours sincerely

A handwritten signature in black ink, appearing to read 'P. Thomas', with a stylized flourish at the end.

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