Review of Transport Assessment – matters arising

1. Qualifications of reviewer, Ian Barrett:
    a. MA (Engineering Science and Business Studies, University of Cambridge); Chartered Engineer; Fellow of the Chartered Institute of Logistics and Transport;
    b. Managing Director, IBIS Transport Consultants Ltd, Chalfont St Giles; Technical Director, Integrated Transport Planning Ltd, Milton Keynes;
    c. 48 years experience in transport and planning; worked in 32 countries worldwide; senior transport advisor to the World Bank;
    d. Resident in Chalfont Common for 37 years; has used all relevant modes on the local road network, with junction access on Chesham Lane opposite the Epilepsy Society site.
2. It is not appropriate to use a strategic traffic model to assess impacts on local roads and lanes, for the following reasons:
    a. The model may not include links that are important at the local rather than the strategic level – *for example, Misbourne Avenue*;
    b. The model assumes that links shown are two track, whereas local lanes may be single track with passing places – *for example, Gorelands Lane west* – or have limitations for certain classes of traffic;
    c. Planning zones are loaded onto the network uniquely at 'centroid attractors'; this may be appropriate at the strategic level but often isn't at the local level, especially where zones are spatially large and there may be more than one potential access point;
    d. Modelling is carried out for peak hours only, with commuting being presumed as the main trip generator, but this may not be the case at the local level – *for example, long distance commuting from the ES area produces peak traffics before 8am and after 6pm; schools traffics are not fully recognised (for example Robertswood School on Chesham Lane); construction workers are typically on site prior to 8am and off site before 5pm.*
3. The transport assessment doesn't consider the traffic capacity of links, in particular their cross-sections and bearing ratios, but only the junctions at their ends:
    a. It is stated that the quality of link operation is generally determined by the junctions at either end but significant parts of the local road network have some physical constraints, including: Gorelands Lane (west and east, and Chalfont Road); Deadhearn Lane; Chesham Lane (between the two ES access points); Horn Hill Road; West Hyde Lane;
    b. None of these roads has been constructed for high numbers of HGVs (equivalent standard axle passes) as would be required in some cases for the development of the ES site; it should be noted that construction of the HS2 CSP Ventshaft access link road proved problematic along the approved routeing on Chesham Lane / Denham Lane / Joiners Lane;
    c. No reference is made to flanking footways, though these are lacking on virtually all of the above links and also Nightingales Lane;
    d. Mitigation measures are proposed only for certain junctions, but don't include: A413 / Misbourne Avenue (which must be at capacity); Gorelands Lane / Chesham Lane (where the sight lines don't meet acceptable standards); Chesham Lane / Monument Lane (actually a 4-arm junction, taking into account the access to the Epilepsy Society campus, Woodland Manor care home, and Audley Dene retirement village);
    e. It is debatable as to whether the proposed mitigation for the A413 / Joiners Lane and High Street junction would prove effective, as the underlying problems are on the exits rather than the entries to the junctions.

4. There is confusion in some of the reporting that affects the conclusions that can safely be drawn from the assessment:
    a. In the Do Minimum (DM) Technical Note, Jacobs indicate that traffic demand in the area of detailed modelling includes committed land uses within the South Bucks and Chiltern Districts; most importantly, this therefore includes the Newland Park development with 306 dwellings added and 218 jobs lost;
    b. In the statement of Limitations and Assumptions, Pell Frischmann (PF) indicate that no committed developments were included in the base-line analysis – this is contrary to accepted practice;
    c. As a result, it is unclear whether the 2036 Do Minimum scenario properly includes the impacts of committed land use changes to that point; flow plots suggest that it might not (*see 6. below*);
    d. At a more detailed level:
        i. Misbourne Avenue doesn't appear as a link in the traffic modelling, but is included in the Supplied Traffic Data with a high speed and substantial traffic;
        ii. Access coding example shown for Newland Park impacts is in Denham Green to the east of the North Orbital Road, and not in Maple Cross to its west as would be expected.
5. The model is poorly calibrated in the local area, and hasn't predicted present traffic impacts:
    a. The A413 southbound just north of Rickmansworth Lane is one of the few links that fails the calibration / validation test; another is the A413 at the Pheasant Hill / Vache Lane roundabouts.
    b. With Misbourne Avenue being missing, traffic from the ES area is predicted to use The Paddocks; this doesn't happen in practice;
    c. Local residents would not recognise the queue lengths at the Rickmansworth Lane / A413 junction;
    d. Local residents would not recognise the traffic speed in Gorelands Lane.
6. The model hasn't appropriately recognised the impact of the other large approved development in the vicinity, at Newland Park, as shown in the Do Minimum (DM) scenario:
    a. Newland Park shows only 21 outbound vehicle movements in the *am* peak from the 306 new dwellings on this site;
    b. Traffic on Gorelands Lane east (towards the North Orbital and M25) is unrealistically low when this will be a key route for car commuters from Newland Park;
    c. Traffic on Deadhearn Lane is shown as nil, when this is on the shortest route from Newland Park to Little Chalfont (and Chalfont & Latimer station) and Amersham.
7. The model predictions for DS1 (inclusion of the ES development) are not credible:
    a. The model predicts significant impacts (± 30%) on 36 links, but half of these are nowhere near the site (some identifiable in Milton Keynes!).
    b. Traffic counts for the period of peak construction (2026) show no increase in HDVs on relevant links (*for example, Joiners Lane*), and it should be noted that construction workers' vehicles had been shown as HGVs for robustness in the scenario modelling;
    c. The model shows a high additional southbound flow on Chesham Lane in the *am* peak with much of this being attracted to the ES site, but doesn't show where this is coming from (Chesham Lane / Gorelands Lane junction is not a trip generator);
    d. The model shows a high additional eastbound flow on Rickmansworth Lane in the *am* peak, but doesn't show where this is going to (Rickmansworth Lane / Roberts and Brawlings Lanes junction is not a demand attractor);

e. The link southbound on the A413 between The Paddocks and Rickmansworth Lane shows a traffic reduction in the *am* peak, but doesn't suggest how this might occur;
f. The link southbound on the A413 between Rickmansworth Lane and Joiners Lane shows virtually no increase in traffic in the *am* peak despite this being on the main southbound desire line from the ES site (to Chalfont St Peter, Gerrards Cross, and M25 / London).

8. Construction Traffic has not been assessed appropriately:
    a. PF state that the scale and volume of construction traffic is likely to be significantly less than the traffic of the complete and operational Proposed Development, so the transport assessment focuses on the latter;
    b. The proportion of HDV traffic on relevant road links in the Supplied Construction Traffic data is up to 10%; adjusting for size and weight, this is not insignificant;
    c. The effects of construction are dismissed as being temporary, and so not included in the analysis – *this is a common fault in development scheme proposals;*
    d. The construction of the development is anticipated to take 8.7 years, which cannot be considered as temporary;
    e. Any approved construction route would include Denham Lane between Rickmansworth Lane and Joiners Lane (*as for the HS2 CSP Vent Shaft*); Robertswood Primary School lies on this link, with attendant risks to pupils, parents and teachers during construction.
    f. Impacts on pedestrians, in particular, are therefore badly understated;
9. The transport assessment doesn't appropriately consider schools traffic, both inbound and outbound:
    a. Much morning peak hour traffic on Denham Lane re-routes to avoid congestion around Robertswood School;
    b. The provision of a new Primary School in the ES development would inevitably increase traffic, with potential for parking to over-spill into the local road network;
    c. Buses / coaches for the main secondary schools in the district don't access Chesham Lane / Denham Lane, but rather are confined to the A413.
10. Assessment of pedestrian impacts is inadequate, and no mitigation measures are proposed:
    a. Pedestrian movement severance is assessed using traffic flows exclusively, with no consideration of horizontal or vertical curvatures and lines of sight; this makes predicted changes in traffic flows crucial, but there is considerable uncertainty over these (*see above*);
    b. Assessment of pedestrian amenity (capacity) presumes footways and crossings; these are inadequate or lacking in the lanes surrounding the site; higher standards within the site are not relevant to the assessment of the development's external impact;
    c. Pedestrian demand is expected to be low in this semi-rural location; only around 50 two-way pedestrian trips are predicted in each of the two peak hours, with some not leaving the site; this is not consistent with the development's stated aspiration to sustainability and encouragement of non-motorised modes (*see also Travel Plan)*;
    d. Pedestrian fear and intimidation is measured by a combination of raw vehicle numbers, HGVs, and traffic speeds; this doesn't consider the adequacy of footways, or sight lines, both of which are problematic in the locality of the development; it also makes changes in traffic flows crucial, but there is considerable uncertainty over these – particularly HGV numbers, which are not predicted to increase in the year of peak construction!
11. Assessment of cycling provision is inadequate, and no mitigation measures are proposed:
    a. Cycling demand is predicted to total 5 two-way trips in each of the two peak hours; this is not consistent with the development's stated aspiration to sustainability and encouragement of non-motorised modes (*see also Travel Plan)*;

b. All the aspects relating to pedestrian fear and intimidation apply equally to cyclists;

12. Assessment of parking provision within the proposed development is inadequate:
    a. The focus of the assessment is on parking standards, rather than parking place numbers;
    b. Chiltern District has some of the highest ratios of car ownership to household numbers in the country; this is unlikely to be any lower in the proposed development;
    c. Restricting off-street parking in order to encourage public transport usage is realistic only where there is a high level of public transport availability;
    d. All households will require off-street parking for charging of electric vehicles (battery or plug-in hybrid); separate space will be required for recycling bins;
    e. On-street parking will be required for additional household vehicles and also household visitor vehicles (including deliveries and tradesmen; these spaces cannot be on the footways, so appropriate roadway widths will be required (particularly for any bus route);
    f. Public parking will be required for any retail or hospitality businesses; primary school pupils drop-off and pick-up; school staff; players and spectators at the sports fields;
    g. All these requirements must impact on the attainable density of development on the site and the streetscape design.
13. Conclusion:
    a. The Beaconsfield and Chalfont St Giles Base Model is not a secure basis for assessment of local traffic impacts in the vicinity of the proposed Epilepsy Society development, and hasn't been updated to recognise the approved development at Newland Park;
    b. The predicted traffic flows on the local road network in the Do Something 1 scenario are not credible, and so a meaningful traffic impact assessment cannot be based on these;
    c. Proposed traffic mitigation measures are inadequate, and fail to recognise the cross-sections of almost all roadway links serving the proposed development;Pedestrian and cyclist movements in the locality of the proposed development have not been appropriately considered, particularly during construction;
    d. Parking provision within the proposed development needs far more consideration.