

REF: DANE/7.9

DANETREE CONSORTIUM

**PROPOSED URBAN EXTENSION
TO THE EAST OF DAVENTRY**

**PROOF OF EVIDENCE OF
Colin Brader**

HIGHWAY IMPACT
REBUTTAL

May 2009

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Appendix 1 Interim Statement of Common Ground

Appendix 2 NCC Letter of 21st April

Appendix 3 Analysis of Access Junctions

1.0 INTRODUCTION

1.1 This rebuttal addresses issues relating to highway impact and accessibility in the following proofs of evidence:

- Graham Reeve (GR), on behalf of Northamptonshire County Council – Highways (NCCH)
- Andrew Bamforth (AB), on behalf of NCCH
- David Bird (DB), on behalf of West Northamptonshire Development Corporation (WNDC)
- Victoria Bennett (VB), on behalf of the Highways Agency (HA)
- Ian Braddock (IB), on behalf of HA
- Simon Bowers (SB), on behalf of Daventry District Council (DDC)

1.2 Whilst it is not the intention of this rebuttal to criticise the Monksmoor and/or Churchfields proposals, I do respond directly to the criticisms of the accessibility of Danetree set out in the evidence submitted on behalf of NCC and WNDC, relative to the accessibility of the Monksmoor and Churchfields sites.

2.0 ACCESSIBILITY AND SUSTAINABILITY

2.1 GR suggests in his paragraph 6.3 that;

“The study work undertaken to date suggests that the south-east corridor (A45) is the least sustainable location in Daventry, and that the south-west (A425 and A361) are the most favourable.”

2.2 This assertion is based upon an assessment which was included within the Daventry Sustainable Development Study (DSDS) – Final Report - May 2008 [CD 3.44] and summarised in the table enclosed within table 5.1 of GR's proof. This table is reproduced below with my own comment (current relevance) upon the indicators of sustainability used at that time. This comment is made in light of the work undertaken in developing the Danetree Transport Strategy and modelling the impact of development undertaken by Arup to inform this inquiry.

DSDS Accessibility Indicators	A45 (SE) DSDS Score	Current Relevance (My Comment)
Transport Capacity (trips) ¹	1%	The transport strategy developed by ITP and the mitigation strategy tested by Arup show that development can be accommodated within the highway network. Subsequent to this assessment it has been shown that any development in Daventry requires the Flore-Weedon bypass. The bypass will increase inbound capacity and significantly improve this score.

Accessibility ²	Low	Assessment takes no account of the developed transport strategy, assumes no improvement to enhance accessibility and takes no account of the detailed evidence now available. Distance might be relevant to walk trips but accessibility must take account of means to support access. In light of the developed strategy, and proven through analysis, this score would be significantly higher.
Sustainable mode share ³	10%	By its own admission the assessment assumes no improvement. This produces a biased and erroneous assessment. Considering the transport strategy developed and testing undertaken this score would improve significantly.
Infrastructure efficiency ⁴	Low	Arup modelling, supported by NCC and HA, has concluded that highways impact can be accommodated and that the Flore-Weedon bypass is required to support <u>any</u> development, not just development in the A45 SE sector. In light of the recent Arup analysis this score would improve significantly.

Bus network efficiency ⁵	High	It is assumed that in this instance 'high' relates to a poor score. The STA in support of Danetree has defined a bus service that will not only meet NCC requirements in service level but make a significant contribution to the 30% target mode share, enhance the level of service in Daventry in general, and will be pump-primed up to the point of self funding. Input of this level of provision would increase this score to positive.
Cost of interventions ⁶	High	The cost of required interventions will be borne by developer(s) as part of the developed mitigation strategy.
Overall rank ⁷	Low	The overall rank is biased towards the level of assessment undertaken at the time, and is, in the light of all of the above comments, considered to be unreliable.

1. Inbound capacity from Daventry Transport Model.
2. Score based on distance from the town centre.
3. Share for bus, walk and cycle from new development assuming no intervention.
4. Based on reliable use of existing infrastructure without demand exceeding highway capacity.
5. Based on likelihood of securing greater bus mode share without intervention.
6. Likelihood for costly intervention in order to secure sustainable modes share.

2.3 GR's proof goes on to state, at paragraph 5.18;

“The A45 south-east corridor showed no spare capacity on the network and therefore this corridor was excluded from further assessment in providing the ‘optimal’ distribution of development around Daventry.”

2.4 and at paragraph 5.21;

“The study concluded that no development should be permitted along the A45 south-east corridor for both sustainability and highway capacity reasons. This is the location of the proposed 5,150 dwellings at Danetree which is being considered at this Appeal.”

2.5 This conclusion is clearly misleading and erroneous as:

- Both the HA and NCC require a commitment to be made to the delivery of the Flore-Weedon Upper Heyford bypass prior to commencement of any development in Daventry. Furthermore, NCC consider the requirement for the bypass to be met irrespective of new development coming forward.
- The bypass is a high priority transport scheme for the County Council and, as such, should be reflected in capacity assessment.
- The bypass will increase capacity of the A45.
- The sustainability (in transport terms) had not been considered with reference to potential mitigation or to any detail at the stage of assessment.

2.6 The exclusion of development within the A45 South East area of Daventry from further assessment thereafter led to the inevitable exclusion from consideration of Danetree and identification of its potential. If the need for the bypass, and its ability to provide a technical highways solution to delivering full growth around Daventry, had been identified at that time (as it now has been), then development in this area would, by definition, have been included in further assessment and inevitably a completely different ranking would have been applied.

2.7 It is considered that the comprehensive work undertaken by ITP to develop a transport strategy to support Danetree, together with the considerable analysis undertaken by NCC's consultants Arup, render the assessment undertaken within the DSDS out-dated, and its conclusions unreliable.

3.0 THE IMPORTANCE OF MIXED USE DEVELOPMENT

3.1 Danetree is a truly mixed use development that contains facilities that support day-to-day needs of education, shopping and health care. It contains a significant amount of employment located adjacent to the existing employment area, the Marches.

3.2 As such, and facilitated by its master plan that emphasises non-car access, it is able to internalise many trips that will be achieved through non-car modes. In calculating mode split a conservative assessment of this potential has been made. However in GR's proof, para 6.57, he states;

"Danetree is providing the greatest amount of employment on its site but from experience elsewhere the amount of 'internal' employment trips is likely to be small and it does not outweigh the remoteness of the site and the major employment areas to the west of the town."

3.3 and at para 5.27;

"The Census data for internal journey to work trips within Daventry shows a significantly different pattern where there are two main modes of transport; private car with 68% mode share and walking with 25% mode share. The highest number of journey to work trips on foot occurs in wards where there is significant amount of local employment available."

3.4 The reference to existing data would appear to contradict GR's assertion against internalisation of work trips and indicates that proximity is in fact important. This supports my contention on behalf of the Appellant that the internal employment and the close proximity of Danetree to the employment area of the Marches (recognising the widely held maximum likely walk distance of 2km), together with the ability to reach all major employment areas by bus without the need for interchange, is important in achieving high non-car mode share.

4.0 WALK/CYCLE ACCESSIBILITY

4.1 In developing the Danetree accessibility strategy, ITP met with NCC's Public Rights of Way Officer, Nick Wedgebrow, and Walk/Cycle Officer, Loretta Spyers-Ashby, both on-site and in NCC's office. The series of meetings through which the approach to walk and cycle accessibility evolved culminated in a meeting on 18th December 2008 at which the following statement was agreed as an insertion in an *Interim Statement of Common Ground*:

"The walk and cycle strategy will provide a safe, convenient and attractive network of routes ensuring access by all residents to local facilities within Danetree that are sufficient to meet everyday needs. In addition, improvements are to be made to ensure wider connectivity of quality, to higher order facilities that offered by Daventry and the surrounding area. These improvements contribute to the creation of an extensive walk/cycle network serving Danetree and Daventry and are recognised as deliverable by the developer."

4.2 The Interim Statement of Common Ground was submitted to PINS on 19th December 2008, by NCC¹. There can be no doubt that this was an agreed Statement, as this has subsequently been acknowledged by the Council's solicitor in a letter dated 21st April 2009².

4.3 It is therefore of great surprise to the Appellant that GR now suggests on behalf of NCC (proof para 6.34) that, "*the proposed Danetree cycle and pedestrian links to Daventry would be unattractive and intimidating for both pedestrians and cyclists and would not be well used*". This contradicts the considered, and previously published, position of experienced NCC staff.

4.4 I maintain that the position of NCC, articulated within the Interim Statement of Common Ground, is a true reflection of the accessibility achieved through the transport strategy for Danetree. Further evidence, in rebuttal to points made by

¹ Copy Appendix 1

² Copy Appendix 2

both GR and DB on behalf of NCC and WNDC respectively, are detailed below.

Walk Provision

4.5 GR quotes PPG13 in relation to walking:

“Walking is the most important mode of travel at the local level and offers the greatest potential to replace short car trips, particularly under 2kms.”

4.6 DB highlights the Institution of Highways and Transportation publication, *Guidelines for Providing for Journeys on Foot*, which is consistent with PPG13 in stating that the maximum theoretical threshold for trips by walking is 2km.

4.7 As such, and following this advice, it is concluded that destinations in excess of 2km are not likely to be accessed on foot. In determining walk trips the maximum distance of travel to be considered must be 2km and as such the relative assessment of proximity where distances are in excess of 2km is irrelevant. As DB’s Figures 7 through to 11 clearly show:

- none of the development sites before this inquiry are within walking distance of Drayton Fields Industrial Estate/Heartlands Business Park (Figure 7), Royal Oak Industrial Estate (Figure 8).
- a significant proportion of Danetree and the southern tip of Churchfields is within walking distance of High March Industrial Estate.
- only the southern tip of Churchfields is within walking distance of Daventry town centre.
- half of Danetree, and no other development sites, are within walking distance of the Danetree employment site.

4.8 As such, walking to destinations external to any of the development sites has an extremely limited role to play. GR (para 6.57) states that, *“the remoteness of*

the site from the town centre and the major employment areas to the west of the town” is therefore subjective and irrelevant.

- 4.9 Para 6.56 of GR’s proof states, after asserting that much of Danetree is beyond 2km; *“Danetree cannot be considered to be a sustainable location regarding its relationship with the urban area”*. Sustainability is not purely a product of proximity but is much more complex and more properly related, in a transport context, to accessibility. While Danetree, as a mixed use development, contains many of the destinations required to sustain day-to-day life that are within close proximity, those that are beyond the boundaries of Danetree are accessible through an exemplar bus service which plays a major role in creating a sustainable form of development that is ignored by GR’s apparent view that proximity creates sustainability.
- 4.10 Walking is a significant mode of transport to access important local facilities that cater for day-to-day needs within development. Danetree has, at its core, a network of accessible and permeable walking links and, as illustrated in my own Accessibility proof (DANE 7.2), Figure 5-1, walking has a major role to play in those trips.

Cycle Provision

- 4.11 GR proof recognises that most of Danetree is within 5km of the town centre and main employment areas (para 6.44). However, he criticises the quality of the routes proposed.
- 4.12 The Danetree transport strategy identifies three primary walk/cycle links connecting the development with the rest of Daventry:
- Via an upgraded bridleway to the south of Borough Hill.
 - Along the A45
 - Along Norton Road

- 4.13 Paragraph 6.24 of GR's proof states the existing bridleway is, *"currently in very poor condition, has steep gradients and a poor horizontal alignment. It is not clear how this could be improved."*
- 4.14 The maintenance and existing condition of this bridleway which is, at minimum, 2m in width is the responsibility of NCC. At meetings with NCC's Public Rights of Way Officer (on site) and Walk/Cycle Officer we have discussed how this bridleway might be improved. Paragraphs 2.27 to 2.31 of the Supplementary Transport Assessment (STA) outline the nature of these improvements that include surfacing to a standard consistent with Sustrans guidance and diversion at its easternmost end to provide even horizontal alignment and ensure acceptable gradient.
- 4.15 The photograph below shows the Brampton Valley Way, a well used cycle path in Northamptonshire which has had the same treatment as proposed, is similar in character and is much used by pedestrians and cyclists.



- 4.16 It is also incorrect for GR to suggest that the bridleway crosses Borough Hill, when by definition and observation, it crosses the southern periphery of the perceived physical barrier.
- 4.17 A shared cycle/footway is proposed to be constructed along both the A45 and Norton Road. Both would be 3m width with the A45 route offset 1m from the

carriageway to provide a buffer between traffic and cyclists/pedestrians. The figure below shows what Norton Road may look like with the proposed footway/cycleway.



4.18 Paragraph 6.26 of GR's proof states;

"the proposed A45 London Road and nearly all of the proposed route along Norton Road would be unlit and both of these sections of road are subject to the national speed limit".

4.19 The development of Danetree and its new access junctions onto the A45 and Norton Road would change the character of both routes, effectively moving the urban edge eastwards, creating a new urban edge. The STA, in paragraph 5.36, highlights the opportunity to create a Daventry gateway at this point. If both Danetree and Churchfields were to be granted planning permission, then Norton Road would be diverted and a greenway created to further facilitate the then redundant section of Norton Road as a walk/cycle route. The willingness to support speed limit reduction and lighting both roads has been expressed at meetings with NCC.

Potential Cycle Usage

4.20 Whilst GR correctly identifies paragraphs within Local Transport Note 2/08 [CD1.62] that identify ideal conditions for cycleways there is no link between

created conditions and usage beyond conjecture. DB makes a similar criticism in paragraph 6.10 of his Accessibility proof, without any evidence base, stating that; *“those travelling to the urban area on foot or cycle do not have a contiguous urban area to travel through but have to travel along routes without any built frontage. In effect they have to pass through areas of countryside that separate the urban area from the Danetree site.”* There is no evidence presented to correlate usage with built frontage or urban areas.

4.21 The national cycle network developed and promoted by Sustrans is largely made up of converted canal towpaths, old railway lines and cross country routes. The annual Sustrans monitoring reports contain numerous references to year on year usage increases upon such routes which command high daily patronage levels. For example The Celtic Trail in Wales links people along its route to local employment centre and green spaces. Much of the route is along bridleways, it is mainly unlit, has varying gradient and is constructed to the same standard as the proposed bridleway upgrade that will connect Danetree and the rest of Daventry. The 2007 National Cycle Network Route User Monitoring Report, cites the following results::

- 42,000 users annually
- 14% of journeys are for commuting
- 83% of respondents are using no other mode of transport to make their journeys despite the fact that 92% of users have access to a car within their household.

4.22 The Liversedge Spenn Valley Greenway in Kirklees is another route of similar standard connecting built areas via green corridors. The 2006 Sustrans monitoring report stated that route usage increased by 23% between 2004 and 2006 to 202,000 trips per year with 30% increase in cycling and 11% increase in walking. Another section between Birkby and Bradley in Kirklees had 46,000 trips in 2006 with 27% of bicycle trips being commuting trips.

4.23 Turning to a more local example, pedestrians and cyclists can be readily observed, during evenings and weekends, using the foot/cycle path, approximately 2.0 metres in width, adjacent to the A428, as a leisure route between the local villages of Bradfield-on-the-Green and Yardley Hastings, located approximately 7.5km to the east of Northampton Town Centre. It should be noted that the A428 provides the main strategic highway link between Northampton and Bedford, and has an average daily traffic flow (AADT) of 8500. It is acknowledged that these pedestrians/cyclists are probably mainly using the facilities for leisure trips, but it does demonstrate is that people are not averse to walking or cycling adjacent to relatively high traffic flows, along a non-standard foot/cycle path, nor without a continuous urban frontage or fabric. The photograph below shows this route.



4.24 While it is envisaged that the nature of both the A45 and Norton Road will change in a way that would meet GR and DB's vision of an appropriate cycle/pedestrian route, it should be noted that there are many instances where high cycle volumes are seen to coexist with other traffic. A 2005 study of commuter cycling by Transport for London showed that over 50% of cyclists made their journey to work on the busiest 'A' roads in London with an average trip length of 8km.

Summary

4.25 The assertion made in GR proof (para 6.34) that the proposed Danetree cycle and pedestrian links to Daventry would be *“unattractive and intimidating for both pedestrians and cyclists, and would not be well used”* is not supported by evidence. Similarly the emotive assertion in paragraph 6.55 that *“Danetree is divorced from the existing urban area”* is a subjective statement and not one that relates to accessibility. I would therefore maintain that the standard of the route proposed, together with a development whose permeability, accessibility and transport provision supports no motorised modes would result in significant cycle usage between Danetree and the rest of Daventry. This view is supported by evidence elsewhere, where high cycle volumes exist in conditions that are not dissimilar to those proposed. Furthermore this is supported by the view offered by NCC and reflected in the Interim Statement of Common Ground submitted to PINS by NCC in December 2008.

5.0 PUBLIC TRANSPORT ACCESSIBILITY

5.1 GR states (para 6.49);

“The bus is likely to be unattractive as an alternative to the car for most journeys, particularly where there is little or no control on parking at both ends of the journey.”

5.2 This general statement is not consistent with the NCC published position and is most disappointing, as it condemns Daventry to an unsustainable future no matter what the development mix, quantum and location may be. The suggestion that the bus cannot deliver modal shift is supported in GR’s paragraph 6.51 which states, *“We cannot therefore rely on inter-urban bus services between Daventry and Northampton to achieve any significant benefit to villages along the A45 in terms of reductions in car traffic levels”*. This view is further articulated, and extended in paragraph 6.58 which states, *“Even with significantly improved bus services and facilities, the bus is unlikely to provide a realistic alternative to the car. The likelihood is that most residents will choose to drive whether they are employed in Daventry or elsewhere”*.

5.3 This view, expressed on behalf of NCC, would appear to be contrary to its own policy which is to encourage mode shift through public transport improvement. Indeed, NCC’s Guidance on Creating Lasting Modal Shift [CD2.3a] contains guidance on measures, including improved bus services and facilities that ensure the bus is a realistic alternative to the car. The establishment of a 20% non-car mode shift target is justified on the basis that is achievable through measures that GR dismisses in favour of car use.

5.4 NCC’s Local Transport Plan [CD2.2] contains comprehensive reference to the desire to pursue modal shift and establishes a capital programme to support it.

5.5 It is pleasing to note that neither GR or DB highlight deficiencies in the nature of public transport provision offered to support Danetree and I note that Figure GR14 of GR’s proof identifies public transport isochrones that show that the

whole of Daventry is within 15 minutes of the centre of Danetree as are many locations along the A45, and much of Northampton within 30 minutes. I see this as endorsement on the level of provision which is recognised as consistent with the level of provision required by NCC's Transport Strategy for Growth. The ability of that level of provision to determine a significant mode share, consistent with mode share targets contained within the same document, is discussed in Section 4.

6.0 LONG BUCKBY STATION

6.1 DB notes (para 3.23):

“... that there will be no direct bus link from the Danetree site to Long Buckby station and this will act as a significant disincentive for residents and employees to use rail to access locations such as Northampton, Coventry, Rugby and Birmingham.”

6.2 To provide a direct link between Danetree and Long Buckby Station would be illogical as it would be between many locations in Daventry. In preference we have sought to develop improved links between Danetree, Daventry Town Centre, and Northampton Station. Northampton Station has a significantly superior range of services together with facilities that support interchange. While proposals to support links between Daventry and Long Buckby are to be applauded it is considered to be improbable and an inappropriate use of public transport subsidy to expect residents of Danetree to interchange in Daventry, interchange at Long Buckby (where no supportive facilities exist) and make further interchange at the destination station before reaching the desired destination.





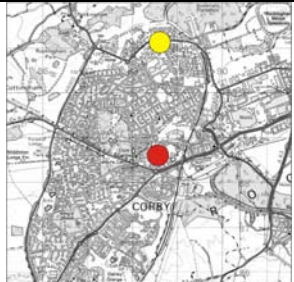
6.3 It is my belief that offering an improved direct connection to Northampton Station will provide a greater incentive to use rail, together with a link that is sustainable in the long term, than seeking to provide a link to Long Buckby Station.

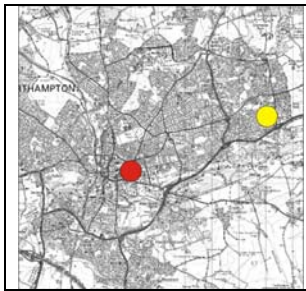
7.0 MODAL SHARE

- 7.1 Public transport modal share depends on numerous factors, showing wide variability in different areas even when there are similar service attributes. As such, any estimate of future modal-split likely to be achieved at a new development has some uncertainty associated with it. To minimise this uncertainty, locally derived evidence relating to existing observed modal shares is invaluable as an improvement to default assumptions often derived from inappropriate studies bearing no relation to the local situation.
- 7.2 In his Proof of Evidence on behalf of WNDC, DB questions the analysis undertaken by ITP as a basis for modal share estimates (Para 3.14). Contrary to the suggestion that regression is non-standard in mode choice estimation, this form of econometric analysis is typically used to establish the input parameters to mode choice models, relating to sensitivity to variables such as fare and journey times. Therefore most mode choice models will implicitly rely on inputs based on such analysis. By using local evidence of observed modal shares, ITP has sought to base estimates on the most appropriate source data.
- 7.3 In assessing ITP's approach, DB uses the example of a trip from Hillmorton Ward, Rugby, to Rugby Town Centre in Warwickshire, while acknowledging that this does not provide exact comparison to the Danetree situation (para 3.19). I would agree that the journey chosen by DB is not directly comparable, given the route is (or was prior to 2007, more closely reflecting the data captured within the 2001 census) served by a bus service operating at half the frequency of the proposed bus service for the Danetree Development, and located in a different county.
- 7.4 A number of examples taken from Northamptonshire which formed part of the regression analysis for Danetree are presented in Table 7.1, showing the bus modal shares achieved on similar journeys to town centres within

Northamptonshire, with the high levels of bus service provision proposed at Danetree.

Table 7.1: Comparison of bus mode shares for trips to town centres with similar characteristics to Danetree service provision

	Origin 	Destination 	Households with No Car Access (%)	Bus Frequency (bph)	Bus Mode Share (reported from 2001 Census journey to work data)
	Danetree, Daventry	Daventry	20%	6	20.8%
	Latimer, Kettering	St Mary's, Kettering	18%	5	24%
	Shire Lodge, Corby	Central, Corby	29%	6	20%
	Danesholme, Corby	Central, Corby	18%	6	21%

	<p>Billing, <i>N'hampton</i></p>	<p>St Crispin, <i>N'hampton</i></p>	<p>21%</p>	<p>6</p>	<p>19%</p>
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7.5 The level of bus modal share for town centre trips predicted for the Danetree Development is therefore not unrepresentative of the modal shares achieved elsewhere in the County.

7.6 It should be noted also, that the mode choice modelling includes no provision for the impact of the following that are central to the development of Danetree and its transport strategy:

- A public transport-orientated master plan that places the bus at the centre of all activity. Its bus stops are located at activity nodes with high quality walk/cycle access between them and the residential development.
- In-home bus information systems that place mode choice directly where the first travel choice of each day is made.
- A package of smarter choices measures including personal travel planning, which have been shown in extensive programmes nationally (and independently audited) to achieve a 10% reduction in single occupancy car trips alone.

7.7 The mode share estimated from the development have been applied to trips to the development for employment. Therefore the modal share for trips to work of those living in Daventry and travelling to the development are assumed to be identical to those generated by the development. Given that the proposed 'figure of eight' bus service provides very good accessibility from Daventry central area, this assumption is considered to be reasonable.

NCC Employed EMME/2 mode choice model

- 7.8 The full specification and assumptions underpinning the EMME/2 mode choice model, in particular the determinants of modal choice, have not been provided. It is however a relatively coarse application of mode share calculation. It is most likely that the model uses a basic generalised journey time based function to determine modal shift, likely to focus primarily on differentials in straightforward end-to-end journey time without consideration of factors such as fares, service quality, parking availability and price. It has been made explicit that there is no modelling of the impact of smarter choices. It is unclear whether the model uses local data to inform modal choice behaviour of travellers, or how the model has been calibrated/validated against existing public transport trip patterns.
- 7.9 The Arup modelling has produced forecast bus mode shares for the three sites, as presented in GR's Table 7.3 [NCC 3]. Some of these modal share estimates vary significantly between the different developments and no commentary is provided in the modelling technical note [NCC 2] regarding the underlying reasons for these large differences. Modal share estimates for bus trips to each of the developments (Monksmoor Farm, Church Fields and Danetree) vary from under 7% for Danetree to almost 20% for the adjacent site at Church Fields. The variability suggests that the model may be particularly sensitive to certain factors, although no commentary is outlined on whether these have been identified or investigated. In any event the results seem inherently improbable given the quality of the bus service offered by Danetree.
- 7.10 I would maintain that the approach adopted in supporting the Danetree transport strategy is a conservatively applied detailed estimate of likely mode split which can be adequately referenced to local experience of mode share outcome. The Arup EMME/2 model is not a detailed mode split tool but is a model developed for the purpose of determining local impact of development, means of mitigation etc.

Summary

- 7.11 An independent review of the Transport Strategy for Growth by Lyn Sloman stated, in paragraph 2.23 of Appendix 3:

“This review found that the targets, whilst ambitious, were achievable, based upon evidence from existing developments, case study research and census data.”

- 7.12 She goes on to establish that significant mode shift can occur within appropriately planned developments. It is maintained that Danetree is such a development. It adheres to NCC guidance on Creating Lasting Modal Shift (Appendix 3 of Transport Strategy for Growth). Its method of assessment is derived from local data, its results are comparable to local data and it contains within its analysis conservatism to ensure a robust analysis.

8.0 MEANS OF ACCESS

8.1 Danetree proposes two means of access, to the A45 (signal junction) and Norton Road (Priority Junction). Both junctions have been tested using ITP's forecast traffic flows including cumulative development for both the AM and PM peak and have been shown to operate within capacity. In GR's proof, (para 6.65), it is stated that as none of the Appellants have tested the capacity of access proposals using output from the Arup traffic model, *"the Appellants have not yet demonstrated that the traffic generated by the developments, either individually or in combination, can be adequately accommodated on the highway network"*. This view is, however, contrary to NCC's position statement issued to the Highways Round Table which stated;

"NCC is satisfied following discussion with the developers that the proposed access arrangements from existing highways will, in principle, be capable of accommodating peak traffic flows associated with each development. Final design and technical approval can be covered by planning conditions and the implementation of the works will require a Section 278 Highways Act agreement to be entered into by the Appellants and NCC."

8.2 Despite the impression that agreement had been reached, ITP requested the appropriate turning movements from GR at a meeting on 2nd March 2009 and emails of 3rd March and 22nd April. The data was received on 8th May and analysis is contained within Appendix 3.

Access to A45 and Sustainability

8.3 Para 6.59 of GR's proof states that for Danetree;

". . . the direct access to the A45, together with the remoteness from the existing urban area, would make it an attractive location for residents to access the strategic road network. This would encourage long distance commuting by car which is not a sustainable solution. Danetree is physically separated from existing urban areas and would not provide a realistic choice of sustainable modes."

- 8.4 Relating development impact to location is, however, contrary to evidence provided by the HA. VB's evidence states, in paragraph 4.19:

"It is evident from the conclusions of the DIS that development in Daventry town would have a material impact on the SRN and that the overall scale of mitigation which would be required was relatively insensitive to the location of the development within Daventry."

- 8.5 As such its location adjacent to the A45 makes its impact on the A45 and the rest of the Strategic Route Network no greater than other development within the town.

- 8.6 Furthermore, Danetree, by virtue of its access onto the A45, is able to offer premium bus access to Northampton which GR states (para 5.30) is the single largest destination for work trips from Daventry (9%). The presence of a direct bus service to Northampton accessible to all Danetree residents, which GR recognises in para 6.48 as offering the fastest travel time by bus of all development sites, therefore adds to its sustainability and makes a virtue out of its location adjacent to the A45.

- 8.7 Danetree is not physically separated from the rest of Daventry but linked, in accessibility terms, via the A5, Norton Road and the improved bridleway south of Borough Hill. Assessment shows, including that within this rebuttal, that high quality non-car based accessibility between Danetree and the rest of Danetree can be achieved. Further, through application of travel planning and the adoption of a master plan sympathetic to non car modes that a relatively high non car mode share can be achieved and maintained.

- 8.8 Further, Paragraph 6.6 in the Structure Plan, (CD 2.1) states:

"Although the strategic development areas will be planned as new communities, they will be located adjacent to and integrated with existing urban areas. This does not necessarily mean physically contiguous as this may prevent an SDA from being sustainable as it otherwise may be and therefore too restrictive. Moreover natural or man-made features such as

rivers, floodplains, railways or major roads may make physical contiguity too high a prescription. It will also be important to incorporate landscaping to conserve the character of existing settlements. The term should, therefore, be applied as meaning 'next to or nearby' to allow the local planning authorities to consider the most sustainable options taking account of the guidance in Policy GS4 and other policies."

9.0 MITIGATING HIGHWAY IMPACT

Delivering the required highways mitigation

9.1 In chapter 11 of her proof of evidence (HA6/1) VB examines the question of delivery of mitigation (an A45 Flore-Weedon-Upper Heyford bypass), including securing funding for the same.

9.2 At para 11.9 VB states:

“In the absence of public funding, the burden of financial delivery would fall to the developers. It is understood that NCC have suggested that a single carriageway bypass could be developer funded and that Danetree Consortium have suggested an initial proposal to NCC as to how this could be achieved. However, the HA has yet to see any firm proposals which indicate either; that any one of the Appellants could bring this forward themselves; or that there is cross developer support to such an approach.”

9.3 Subsequent to VB’s proof, Danetree have introduced proposals for forward funding the construction of the FWUH bypass to NCCH and HA both of whom have agreed to discuss with Danetree appropriate mechanisms for both securing such funding, and clawing-back appropriate contributions from other development benefitting from the bypass in due course³.

9.4 It is understood that of the three Appellants, Danetree are alone in advancing proposals for forward funding the construction of the bypass, indeed the statements and contributions referred to in the evidence submitted on behalf of Churchfields and Monksmoor indicate that they would resist 100% developer funding.

9.5 In “Funding transport infrastructure for strategically significant developments”(DfT 9 April 2009)⁴ it is acknowledged that:

³ See DANE 15 – Interim Position Statement on Delivery of Transport Infrastructure (15 May 2009)

⁴ See extract Appendix 3

“Funding availability, irrespective of the analysis of public or private sector benefit share, is a possible constraint. Funding is always limited, and no application of a set formula or analyses can commit either Government or the private sector to a settlement.

5.41 Funding availability from all parties, private and public sector, is likely to be an iterative part of the process. Having agreed in principle the funding shares based on beneficiary analysis, the parties to the discussion would then analyse within their own organisations whether the investment is viable and the funding required can be allocated. Affordability is a key consideration at this point...

...5.44 Innovative funding proposals drawing in other third party contributors or increased investor contributions are also welcomed, and these could further improve the potential for DfT funding...

....5.48 These guidelines do not prevent the developer from increasing its contribution or meeting the cost in full to discharge obligations of a planning consent if no public funding is available. This enables developments to proceed without any further delay resulting from the lack of availability of public funding”

- 9.6 Forward funding of required infrastructure is also envisaged in Circular 05/05 which provides:

“B23 In cases where an item of infrastructure necessitated by the cumulative impact of a series of developments is provided by a local authority or other body before all the developments have come forward, the later developers may still be required to contribute the relevant proportion of the costs”

- 9.7 The principle of a planning authority collecting future contributions and applying them to infrastructure costs by way of reimbursement to a forward funding developer was accepted by the Secretary of State in an Appeal Decision dated 26 January 2009 in order to secure necessary highways infrastructure to facilitate new housing development in South Derbyshire (see CHL23 and 23A). Furthermore, such an obligation is entirely consistent with the pooled contributions provisions set out in Circular 05/2005 paragraphs B21-B24.

9.8 Whilst pooled contributions could divide the costs of the bypass over contributing development, it does not ensure that there is funding for the bypass when needed. As NCC acknowledge, gap funding is required to provide the funding when required. No gap funding has, however, been identified in this case. It seems apparent from the evidence submitted that the only way to break the impasse is for a solution to be progressed which combines pooled contributions with forward funding, as pooled contributions on their own will not address the key concern of money being available to build the bypass when it is needed.

Dualling the bypass

9.9 DB notes in para 4.11 the link between Danetree and the dualling of the FWUH bypass:

“Granting of consent for Danetree at this stage would potentially commit the authorities to provision of a dual carriageway bypass.”

9.10 GR supports this view but makes a more definitive statement in para 8.28 stating;

“A dual carriageway by-pass would only be needed if Danetree was approved”

9.11 GR notes (para 8.25) the trigger points for dualling, referring to the derivation of these as “indicative analysis”. It is suggested that the analysis can, at this stage, only be indicative and that this is recognised in DB’s use of the phrase ‘potentially commit’. The reasons why this cannot be definitive at this stage are:

- The determination of the need to dual is sensitive to the application of background traffic growth which will be reviewed prior to the dualling being justified.
- The determination of the need to dual in the current analysis is on the basis of low forecast non-car mode share. If the NCC mode split targets are achieved, as they must, this will reduce highway impact.

- The need for dualling will be determined following more detailed modelling work to support the case for a single carriageway bypass and this cannot be prejudged.

M1 Junction 16 Improvements

9.12 It is noted that a worst case scenario improvement to Junction 16 of the M1 has been identified and it is further recognised that; *“the modelling that has been undertaken to determine the affects of the FWUH is not considered sufficiently robust to provide definitive conclusions as to the extent of mitigation works that would be required.”* (VB proof para 8.15). We would note that extent of improvement required to this junction can only be determined through more detailed modelling of the FWUH bypass and that this modelling must take full account of the contribution of development along the M1 corridor and the Northampton area to both its need and its mitigation.

Interim Improvements to the A45/A5 Junction

- 9.13 DB’s evidence includes an engineering design that, it is maintained, could provide an interim solution to the junction of the A45/A5 junction (Weedon cross-roads). Further detail on this proposal, including amended design, analysis and safety audit was received on 18th May 2009.
- 9.14 Consideration of this interim solution must be prefaced with the view of both the HA and NCC that a commitment to the bypass must be secured prior to the commitment to any development and that the bypass must, in NCC’s view, be privately funded. The development of an interim scheme, if accepted by the highway authorities, does not obviate these requirements.
- 9.15 The interim solution is shown to deliver short-term capacity improvements that show no detriment to the junction with modest development if traffic growth is ignored.
- 9.16 In considering the merits of the interim scheme it should be further noted:

- It is inappropriate to ignore traffic growth as growth will occur and contribute, alongside development, to the deterioration of quality of life for residents along the A45. It may be readily argued that any reserve capacity within the junction or the A45 link is most appropriately allocated to accommodate growth, over which there is no mechanism for control, rather than development for which there is a mechanism.
- The assertion by DB in his Proof in advocating the notion of “peak spreading” as a means of spreading impact at the junction thus reducing the need to mitigate impact is flawed. Peak spreading is an undesirable reaction to congestion and will extend the period over which residents must suffer the negative effects of congestion.
- The increase in link congestion on the A45, as a result of traffic growth and development traffic, will increase delay to bus services and will not/cannot trigger effective mode shift as DB suggests it might.
- The increase in traffic through the junction will result in further pedestrian severance and increase the potential of pedestrian-related accidents at Weedon. Evidence from NCC's accident database indicates a total of nine accidents including one serious injury relating to a pedestrian at, or within, close proximity to the cross-roads in the past three years.
- The junction improvement does not include any pedestrian crossing facilities. This is a point noted within the independent safety audit that states; *“The proposals should include facilities for pedestrians to cross the road.”* The inclusion of such a facility may reduce capacity. Curiously the designers’ response to the safety audit, under item A1.2, acknowledges that the junction improvement may fail due to the background traffic growth that the assessment ignores;

“It should also be noted that traffic flows at this junction will increase due to background traffic growth, which without the proposed junction improvement will lead to increased queuing and congestion. As a result of this, driver frustration and stress will also increase, which may result in poorer driving standards and thus a potential reduction in pedestrian safety at this location.”
- The improvement fails to address predicted link capacity issues on the A45, it further compromises local air and noise conditions and fails to address the impact of traffic within the villages of Flore, Weedon and Upper Heyford.
- Implementation of the improvement would potentially divert funding away from the bypass and leave a legacy of an inappropriate form of junction to accommodate post bypass demands.

9.17 Despite the issues noted above, capacity analysis of this interim scheme has resulted in DB asserting that 2,865 units spread across all three sites would render the junction as operating no worse than the current situation (para 2.62). As such, if the inspector was to look favorably upon this improvement to release early development, development at Danetree is not excluded.

10.0 CONCLUSION

10.1 This rebuttal has addressed issues relating to Danetree raised by NCC, HA and WNDG in Highway Proofs. In particular it has shown:

Accessibility and Sustainability

10.2 That the assessment of Danetree as part of the Daventry Sustainable Development Study [CD3.44] has been superseded by analysis undertaken by NCC's consultants Arup and work undertaken by ITP in developing the transport strategy to support development.

Importance of Mixed Use Development

10.3 The ability to internalise trips within an environment that actively encourages walking and cycling cannot be overlooked and must form part of the overall sustainability appraisal of the development.

Walk/Cycle Accessibility

10.4 The walk and cycle routes developed to connect Danetree with the rest of Daventry comply with national best practice guidance and there is sufficient evidence from elsewhere to demonstrate that they would be effective in providing a realistic alternative to the private car.

10.5 This has been recognised by officers of NCC and reflected within the Interim Statement of Common Ground submitted to PINS by NCC in December 2008.

Public Transport Accessibility

10.6 The development of the Danetree public transport strategy has followed best practice guidance and adheres to the requirement in NCC guidance on creating lasting modal shift. It provides direct connections (without the need for interchange) to all primary destinations in Daventry, to Northampton and Northampton rail station through a high frequency service.

Modal Share

- 10.7 Mode share analysis undertaken by ITP is based upon diligent application of established methodology using locally derived parameters. Despite statements to the contrary the resultant mode share of development is not at odds with that achieved elsewhere and as such can be accepted as realistic.

Means of Access

- 10.8 The NCC position statement to the Inquiries' initial highways round table session reported contentment on access design. The access has now been further analysed using model output flows and is reported as an appendix to this rebuttal. Analysis shows both the A45 and Norton Road junctions operate within capacity.

Mitigating Highway Impact

- 10.9 The need for commitment to a private-sector funded Flore Weedon Upper Heyford bypass to release any development is accepted and Danetree have introduced proposals to forward fund the construction of the bypass. An Interim Position Statement on the delivery of Transport Infrastructure has been submitted separately to the Inquiry.
- 10.10 The need to dual the bypass in the case of release of all development sites in Daventry is noted as a potential requirement subject to full and further analysis alongside development of the 'major scheme submission' of the single carriageway bypass.
- 10.11 The need for improvement at M1 Junction 16 and the potential for improvement is noted. The extent of that improvement and its triggers are subject to further more detailed analysis and must take account of development in Northampton and within the M1 corridor.
- 10.12 The interim improvements proposed by WNDG for the A45/A5 junction have been considered in the context of the need to commit to the bypass and its funding irrespective of improvement. While concerns have been expressed as to the merits of improvement it is noted that impact upon the strategic route network is insensitive to location and as such Danetree is as likely to form part of early stage development as any other location.

Summary

10.13 Upon considering the evidence submitted I am satisfied that all transport considerations can be satisfactorily addressed and as such, subject to relevant planning conditions and/or provisions within Section 106 planning obligations, that there is no transport reason for refusing planning consent.