

## APPENDIX A1: Response to Parson's Brinkerhoff's Scoping Note dated 21<sup>st</sup> September 2010

**Project:** HTT91273A/3529.1

**Title:** NW Bicester Exemplar Site Development Proposal

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**Date:** 16<sup>th</sup> November 2010

This note has been prepared in order to clarify queries and address matters raised in the Technical Note that was prepared by traffic consultants Parsons Brinkerhoff (on behalf of the Highways Agency, dated 21<sup>st</sup> September 2010). The numbered section headings below are as per the Scoping Note that has been prepared by PB for consistency.

For clarification, the development scheduled for the Exemplar Site is summarised in **Table 1**, and it is important to note that these quantum(s) have been reflected in the Transport Assessment that has been prepared by Hyder and issued in draft format to officers at Oxfordshire County Council, Cherwell District Council and the Highways Agency on Monday 15<sup>th</sup> November 2010.

**Table 1: Proposed Exemplar Site Land Uses**

Land Use(s)	Quantum(s)
Residential	270 Private Dwellings
	123 Affordable Dwellings
Primary School	135 Pupils / 757sqm GFA
Local Shops	920sqm GFA
Eco Public House	190sqm GFA
Community Hall	580sqm GFA
Children's Nursery	40 spaces / 350sqm GFA
B1 Offices	1,100sqm GFA
Eco Business Centre	1,800sqm GFA
Biomass Energy Centre	400sqm GFA

### 1. Introduction

1.1. The introductory section reaffirms the purpose of the Scoping Note prepared by PB, which was to comment on the original NW Bicester Development – Transport Assessment Scoping Note prepared by Hyder (dated 30<sup>th</sup> June 2010).

1.2. Noted

### 2. Development Overview

2.1 At the present moment in time it is not possible to definitively confirm the future phasing of the NW Bicester Eco Town Site. It is however proposed that 3,000 dwellings, 3,000 jobs and associated land uses will be delivered at the NW Bicester Eco Town Site by 2026. The development schedule for the Exemplar Site is for 393 residential dwellings to be developed on the 21.1 hectare site, which equates to approximately 19 dwellings per hectare. It is however important to note that mixed use development is being promoted at the site, which is why the density for the proposed residential dwellings falls below the typical 30 dwellings per hectare.

2.2 The development proposal includes provision for the delivery of 30% affordable housing at the Exemplar Site, which is a typical figure for any residential site being promoted in the South East of England.

2.3 It is proposed that each of the proposed Exemplar Site land uses will be 'developed out' and occupied by 2016, the projected year of opening. It is envisaged that the development of the proposed employment, community and education facilities will happen in tandem with the phasing of the proposed quantum of residential units. In addition, the Transport Assessment that has been prepared for the Exemplar Site appropriately sets out the accessibility of the Exemplar Site to a range of existing external facilities (such as employment, retail, education, health, leisure facilities) sited throughout Bicester.

### **3. Policy**

3.1 The draft Transport Assessment references appropriate policy and guidance documents, including PPG13 Transport, DfT Circular 02/2007 Planning and the Strategic Road Network and DfT Guidance on Transport Assessment.

3.2 The draft Transport Assessment refers to the status of the Cherwell District Council Draft Core Strategy at the time of writing (15<sup>th</sup> November 2010). Reference is made to the issuing of a draft document in February 2010 and Cherwell District Council's review of their evidence base to support the legislation following the abolition of the Regional Spatial Strategy. The draft policy has been summarised within **Chapter 2** of the Transport Assessment.

3.3 It is acknowledged that the Exemplar Site is not likely to deliver the level of services, infrastructure requirements and sustainable targets that will be necessary to support the Eco Town development. Separate planning applications will be submitted in support of development proposals for the Eco Town development, although the Exemplar Site should be viewed as the catalyst for development at the NW Bicester Eco Town Site.

### **4. Trip Generation**

4.1 The TRICS database has been used to determine the number of total person trips that would be associated with the land uses that are proposed for the Exemplar Site. The data derived from the TRICS database is for development sites in comparable locations and of similar scales of development, and where multi-modal trip information is available. The number of trips anticipated to be generated by vehicle and non vehicle modes has then been calculated using target modal shares for each land use. Vehicle trips have then been factored to actual number of vehicles using the results of the 2007 Bicester Travel Diary Surveys to determine vehicle occupancy rates by trip purpose. Mode shares targets were then set for 2016 and 2026 at the Exemplar Site, and cross-referenced with mode share data extracted from the TRICS database for each of the proposed land uses (as a baseline), whilst also reflecting the anticipated level of containment at the Exemplar Site. Furthermore, these mode share targets have been discussed at length with Oxfordshire County Council who are in agreement with the overall 55:45 and 50:50 vehicular: non-vehicular based travel mode shares for 2016 and 2026 respectively.

4.2 Matters relating to appropriate reduction that could be applied to relevant vehicular trip rates to reflect the proposed mix of uses, accessibility to proposed internal and existing external facilities and the proposed travel plan measures and commitments at the Exemplar Site have been discussed on numerous occasions with officers from Oxfordshire CC and Cherwell DC.

4.3 Trip rates using both the person rate and vehicular rate for each of the peak periods have been derived and included within the Transport Assessment that has been prepared for the Exemplar Site. This approach has provided a comprehensive overview of the projected trip generating nature of the development proposal. The trip rates that have been derived reflect current mode share for each assumed trip purpose.

### **5. Modal Share**

5.1 The Transport Assessment includes a comparison of the modal share obtained from the 2007 Household Travel Survey Diary for Bicester against the 2001 Census data for Bicester.

5.2 The number of samples (1,500) from the 2007 Household Travel Survey Diary for Bicester is considered to be a representative number, and appropriate for purpose of the analysis that has been conducted and reflected within the Transport Assessment. It is however noted that it is worthwhile conducting a comparative assessment of the mode share information obtained from the 2007 household survey against the 2001 Census data for Bicester, which has duly been reflected in the Transport Assessment.

5.3 Noted

### **6. Traffic Assessment**

6.1 Noted, the trip generation considers both person and vehicular trips. All traffic generated from the Exemplar Site, whether it is car-based or non-car-based, has been assessed within the Transport Assessment.

6.2 In the case of bus passenger trips, appropriate analysis has been undertaken to determine whether the buses serving the Exemplar Site would be able to travel relatively unimpeded across the external road network. A proposed new bus route to connect the Exemplar Site with Bicester town centre and the Bicester Town Railway Station has been documented within the Transport Assessment. Given the proposed route of the bus that will serve the Exemplar Site, it was considered particularly relevant to assess the performance of the A4095 Lord's Lane/B4100 Banbury Road roundabout. The Transport Assessment clearly sets out the findings of the junction modelling assessments performed on this junction, which indicate that the junction will perform within its design capacity (i.e. RFC less than 0.850) during the morning and evening peak hours in 2016, with some queuing forecast on the B4100 northern arm in 2026 as a consequence of background traffic increases at this location. A series of highway improvement measures for the roundabout were explored within the traffic modelling software prior to an optimum solution being identified. Appropriate commentary is included within the Transport Assessment.

## **7. Extent of Assessment**

7.1 The Transport Assessment includes an assessment of the Strategic Road Network (SRN) which includes M40 Junction 9, M40 Junction 10 and junctions on the B4100 and A41 corridors. For clarification, an assessment of the net and percentage traffic impact of the Exemplar Site development proposal as been performed on the following junctions:

Junction 1 – A4095 Howes Lane / B4030 Middleton Stoney Road crossroads;  
Junction 2a – A4095 Howes Lane / Bucknell Road priority junction;  
Junction 2b – A4095 Lord's Lane / Bucknell Road roundabout;  
Junction 3 – A4095 Lord's Lane / B4100 Banbury Road roundabout;  
Junction 4 – A4095 Southwold Lane / A4421 Skimmingdish Lane roundabout;  
Junction 5 – Bicester Road / Ardley Road / Bainton Road crossroads;  
Junction 6 – B4100 Banbury Road / Bainton Road priority junction;  
Junction 7 – A41 / Bicester Services roundabout;  
Junction 8 – B4030 Oxford Rd / Pingle Drive roundabout;  
Junction 9 – King's End / B4030 Middleton Stoney Road mini-roundabout;  
M40 Junction 9 – Wendlebury Interchange; and  
M40 Junction 10 – Ardley Interchange.

In addition, junction assessments were performed on Junctions 1 to 6 in order to determine the operational performance of these junctions in the Base 2010, Forecast 2016 (without development), Opening 2016 (with development), Forecast 2026 (without development) and Design 2026 (with development) scenarios during the morning and evening peak hours. Furthermore, in instances where Junctions 1 to 6 are forecast to operate over their respective design capacities (i.e. with RFCs greater than 0.850 on any arms of said junctions) appropriate highway mitigation measures have been explored and documented within the Transport Assessment.

## **8. Baseline Traffic Data**

8.1 The traffic surveys that were conducted in July 2010 included the following junctions (turning counts) and links (automatic traffic counts):

### **Turning count surveys – conducted on Tuesday 6<sup>th</sup> July 2010**

Junction 1 – A4095 Howes Lane / B4030 Middleton Stoney Road Crossroads;  
Junction 2a – A4095 Howes Lane / Bucknell Road priority junction;  
Junction 2b – A4095 Lord's Lane / Bucknell Road roundabout;  
Junction 3 – A4095 Lord's Lane / B4100 Banbury Road Roundabout;  
Junction 4 – A4095 Southwold Lane / A4421 Skimmingdish Lane Roundabout;  
Junction 5 – Bicester Road / Ardley Road / Bainton Road Crossroads; and  
Junction 6 – B4100 Banbury Road / Bainton Road Priority Junction.

### **ATC surveys – conducted between Friday 2<sup>nd</sup> and Thursday 8<sup>th</sup> July 2010**

ATC 1 – B4030 to the north west of the A4095/B4030 Middleton Stoney Road Crossroads;  
ATC 2 – Howes Lane, approximately 100m south west of the junction with Shakespeare Drive;  
ATC 3 – Bucknell Road, approximately 50m north of the junction with George Street;  
ATC 4 – B4100 Banbury Road, approximately 100m north of the junction with Lucerne Ave;  
ATC 5 – Lord's Lane, between its junctions with Lucerne Ave and Germander Way; and  
ATC 6 – B4100 Banbury Rd, 80m south of junction with minor road leading to Caversfield.

A comparative assessment between the traffic data collected in July 2010 and traffic data collected in October 2009 (supplied by Oxfordshire County Council) involved the following three key automatic traffic count (ATC) sites:

ATC Site 1: B4030 Middleton Stoney Road, approximately 100m west of A4095/B4030 crossroads

ATC Site 2: A4095 Howes Lane, approximately 150m south of the A4095/Shakespeare Drive signals

ATC Site 3: B4100 Banbury Road, approximately 200m south of the A4095/B4100 roundabout

The comparative assessment revealed the following:

ATC Site 1: July 2010AM flows 4.4% higher than October 2009AM flows, July 2010PM flows 8.9% higher than October 2009PM flows

ATC Site 2: July 2010AM flows 3.1% lower than October 2009AM flows, July 2010PM flows 15.2% higher than October 2009PM flows

ATC Site 3: July 2010AM flows 1.1% higher than October 2009AM flows, July 2010PM flows 2.2% higher than October 2009PM flows

In light of the above and following discussions with officers from Oxfordshire County Council it was agreed that it would be appropriate to utilise the July 2010 traffic data for the purposes of the Exemplar Site assessments.

## **9. Assessment Hours**

9.1 For clarification, the ATC locations and survey durations are confirmed in the above.

## **10. Future Years**

10.1 It is stated in PB's note (dated 21<sup>st</sup> September 2010) that a future assessment year of 15 years after opening appears to be reasonable. It can be confirmed that the assessment years are 2016 and 2026, which is consistent with the assessment years included in the COTM assessments that were operated by traffic consultant Halcrow on behalf of Oxfordshire CC.

10.2 The applied growth rates within the Transport Assessment were devised by Halcrow following discussions with Hyder and consultation with Oxfordshire CC and Cherwell DC. The growth rates that have been applied in order to 'factor-up' the base 2010 traffic count data to 2016 and 2026 take account of committed developments and the assumption of 3,000 new homes and associated jobs being delivered by 2026. The method relied upon Hyder determining trip generations and attractions for the Exemplar Site and Masterplan Site (as a proxy for the 3,000 homes), with Halcrow entering the AM and PM peak hour traffic generations into the SATURN model demand matrices (for 2016 and 2026) in order to obtain the necessary growth factors.

## **11. Distribution and Assignment**

11.1 It is noted that PB regard the use of the COTM as a suitable tool to evaluate the distribution and assignment of traffic generated by the NW Bicester Eco Town in its entirety.

11.2 It is acknowledged that PB have suggested that, for the purposes of preparing a Transport Assessment for the Exemplar Site, a traditional approach of traffic distribution and assignment might be more cost effective and transparent. The approach taken was to utilise the COTM model to assign Exemplar Site-generated traffic to the local highway network, as requested by Oxfordshire County Council and Cherwell District Council. This approach ensures consistency with any future assessments relating to the NW Bicester Eco Town Site.

## **12. Junction Assessment**

12.1 Junction modelling assessments included the following seven junctions on the local highway network in order to establish the operational performance of these junctions during the morning and evening peak hours in the base 2010, 2016 (with and without) and 2026 (with and without scenarios):

Junction 1 – A4095 Howes Lane / B4030 Middleton Stoney Road Crossroads;

Junction 2a – A4095 Howes Lane / Bucknell Road priority junction;

Junction 2b – A4095 Lord's Lane / Bucknell Road roundabout;

Junction 3 – A4095 Lord's Lane / B4100 Banbury Road Roundabout;

Junction 4 – A4095 Southwold Lane / A4421 Skimmingdish Lane Roundabout;

Junction 5 – Bicester Road / Ardley Road / Bainton Road Crossroads; and

Junction 6 – B4100 Banbury Road / Bainton Road Priority Junction.

### **13. Personal Injury Analysis**

13.1 It is noted that PB are content with the suggested personal injury analysis study area.

### **14. Access Arrangement**

14.1 The Transport Assessment that has been prepared for the Exemplar Site identifies off-site works that would be required to accommodate the projected volume of development traffic. Further, a site access strategy has been devised and reflected in the Transport Assessment.

14.2 It is accepted that the scale of on-site and off-site infrastructure works associated with the Exemplar Site would be drastically different from the full development of the NW Bicester Eco Town. It is assumed that off-site highway infrastructure works required to accommodate Exemplar Site-generated traffic would be secured through a Section 278 agreement. Whilst the Transport Assessment relates specifically to the Exemplar Site development proposal, it is understood that a further Transport Assessment will set out the development proposals, traffic impacts and highway infrastructure requirements of the NW Bicester Eco Town site. All highway improvements would be devised to reflect the guidance contained within the Design Manual for Roads and Bridges, whilst the assessment criteria has and will follow the DfT Circular 02/2007.

### **15. Parking Provision**

15.1 The comment provided by PB states that “parking provision for a residential development is not a major issue”. The Transport Assessment that has been prepared for the Exemplar Site reflects the sustainable travel measures that have been considered and deemed ‘deliverable’, whilst the level of parking that has been suggested within the Transport Assessment has been set to address potential residual car-based trips.

### **16. Sustainable Travel**

16.1 The Transport Assessment recognises the current limitations of the selected location for the Exemplar Site development, whilst a range of sustainable travel measures such as walk and cycle linkages, personal travel planning, the provision of a new bus route to connect the Exemplar Site with the town centre and Bicester Town Railway Station would help to realise the “eco” status of the Exemplar Site.

16.2 Whilst it is accepted that car-based travel is likely to initially remain as the dominant mode of travel in the projected year of opening (2016, i.e. when it is anticipated that the entire Exemplar Site will be developed out and occupied), the Transport Assessment and accompanying Travel Plan for the Exemplar Site has targeted the following vehicle:non-vehicle mode share proportions for all trip purposes:

2016: 55% vehicle based : 45% non-vehicle based

2026: 50% vehicle based : 50% non-vehicle based

The mode share proportions identified above are consistent with the target setting set out in Planning Policy Statement 1 – Eco-towns Annex, and have been discussed and agreed in principle with officers from Oxfordshire County Council and Cherwell District Council. Furthermore, the Travel Plan that has been prepared for the Exemplar Site sets out an appropriate implementation and monitoring strategy that will help to keep the Travel Plan on track and take appropriate action in the event that the targets that have been set are not being achieved.

### **17. Travel Planning**

17.1 It is accepted that travel planning should not just be a standalone document. Travel planning has been integrated into the Masterplan that has been developed for the Exemplar Site, as well as the suggested sustainable travel measures of the site.