

## **Land at Crabtree Farm, Hinckley Road, Barwell**

### **TECHNICAL NOTE - HIGHWAYS**

#### **Introduction**

Savoy Consulting has been asked by our client to address five matters arising from comments received from Highway Development Management at Leicestershire County Council in their formal response to the local planning authority dated 27 March 2024 in relation to four planning applications on two sites at Crabtree Farm, Barwell.

#### **Background**

In the email dated 27 March 2024, Highways Development Management raised several matters that were of concern to them in relation to our client's four planning applications for two residential developments.

The five principal matters of concern to the highway authority that required further information can be summarised thus:

- ❖ Provision of site access and swept path analysis drawings.
- ❖ Provision of details of the appropriate visibility splays at the site access based on an up to date speed survey.
- ❖ Analysis of County Council supplied personal injury collision data for the study area.
- ❖ Trip distribution analysis for the site based on 2011 census data.
- ❖ Capacity assessments of the two site accesses.

#### **Outstanding Matters**

To address these outstanding matters this Technical Note provides the following information.

#### **Swept Path Analysis**

Drawing DWG-05 attached demonstrates that a refuse lorry can enter and leave the site in forward gear and undertake three point turns in the turning heads at the end of the various cul-de-sacs shown.

#### **Site Access Visibility Splays**

To determine the correct visibility splays at the western access, up to date traffic counts were carried out in April 2024 on Hinkley Road in the vicinity of this access, the results of which are also attached to this Technical Note.

It can be seen from the survey results that the 85<sup>th</sup> percentile speeds recorded in April 2024 were as follows:

- ❖ eastbound 35.9 mph
- ❖ westbound 39.8 mph

Based on the requirements set out in Table DC4 in the Leicestershire Design Guide visibility splays of 2.4 metres x 65 metres have been provided. Drawing DWG-05 shows that the requisite visibility splays can be provided without any affect on third party land.

### **Collision Data**

Up to date personal injury collision (PIC) data has been acquired from Leicestershire County Council and the results of the analysis are also attached to this Technical Note.

The study area extended from the junction of A447/Hinkley Road to the west, along Hinkley Road as far as the gyratory system in the centre of Barwell to the east, a distance of some 1.8 kilometres.

From the data supplied, it can be seen that only two PICs have been recorded in the latest five year period for which data is available, both of which were recorded as slight.

The first was at the junction of A447/Hinkley Road and occurred on 24 December 2019 involving two cars colliding at the junction. The second occurred on 8 April 2023, east of the junction with St. Mary's Avenue and involved a single car. The precise location of the incident is not known.

This analysis clearly demonstrates that the study area has a good road safety record, and the proposed development will not have a material impact on road safety of the local highway network.

### **Trip Distribution Analysis**

Trip distribution analysis has been carried out based on the 2011 census data.

Interrogation of the data based on the location of usual residence and place of work by method of travel to work (MSOA level WU03EW) has been carried out and the analysis is attached. The analysis shows that it is predicted 65% of development traffic will travel west and 35% of the development traffic will travel east.

### **Capacity Assessment of Two Site Accesses**

Using the results from the up to date traffic counts on Hinckley Road, background traffic flows were analysed to determine the morning and evening peak hour periods.

Using the peak hour flows, trip distribution based on the 2011 census data described above and suggested trip rates by the County Council for the proposed development, capacity assessments have been carried out for the two junctions for 2024 and 2029. This analysis was undertaken using the industry standard computer program PICADY10.

The results of this analysis are attached and show that the maximum Ratio of Flow to Capacity (RFC) is in the evening peak at both junctions in 2029 with an RFC of 0.04. The maximum permissible RFC is 0.85.

## **Conclusions**

Following the completion of this additional work requested by Highway Development Management at Leicestershire County Council it can be clearly seen that the design of the site accesses meets with current highway design standards in Leicestershire and appropriate visibility splays can be provided at the site access.

Analysis of the personal injury collision data also shows that the study area has a good road safety record which will not change as a result of the development.

Capacity assessments have been carried out for the two site accesses which show a ratio of flow to capacity of no greater than 0.04 even in the future year of 2029 which shows that there will be no capacity issues either now or in the future as a result of the proposed development.

In summary therefore, it can be seen from this additional work carried out at the request of the highway authority there remains no material or overriding highway or transportation reasons why the proposed development should not be granted planning permission.

**June 2024**