

Project	106205 – Land to the East of Charlwood Drive, Henfield
Document Title or Subject	Trip Distribution & Assignment Methodology
Document Reference	106205 - Land East of Charlwood Drive, Henfield - Trip Distribution & Assignment TN F01 2024-10-23
Revision Reference	F01 – Final Issue
Date	24 October 2024

## 1 Introduction

### 1.1 Overview

- 1.1.1 Pell Frischmann (PF) is commissioned by Croudace Homes to provide transport and highways consultancy services in connection with a planning application for circa 200 residential dwellings on land to the east of Charlwood Drive, Henfield, West Sussex (the 'site').
- 1.1.2 This Technical Note (TN) presents the outcomes of a peak hour assessment, trip generation, trip distribution and assignment exercise, which would ultimately be taken forward within a Transport Assessment (TA) to support the planning application. A pre-application TA Scoping Report was submitted to West Sussex County Council (WSCC) in September 2024, with a response subsequently received on 9 September 2024. The trip rates and resulting trip generation presented within Section 2.2 of this TN were agreed within the scoping response.

### 1.2 Site Location and Description

- 1.1.1. The site is located to the east of Charlwood Drive and Fillery Way, which form part of a residential development comprising of 102 units and was granted reserved matters approval in February 2015. Access to this development is provided from Wantley Hill Estate, which in turn provides access to London Road (A281).

### 1.3 Traffic Surveys

- 1.3.1 Manual classified turning counts and queue length surveys were undertaken at the junctions listed below on Thursday 11 July 2024 between 07:00-10:00 and 16:00-19:00:
- A281 London Road / Wantley Hill Estate - Priority Junction;
  - A281 Brighton Road / A2037 High Street / Golden Square - Priority Roundabout; and
  - A281 London Road / Deer Park - Priority Roundabout.
- 1.3.2 The surveys identified the peak hours to be 08:00-09:00 and 16:45-17:45 for the AM and PM peak hours respectively.
- 1.3.3 In addition to the above, Automatic Traffic Counts (ATC's) were installed between Thursday 04 July 2024 and Wednesday 10 July 2024 at the following locations:
- Charlwood Drive - immediately to the east of the junction with Wantley Estate;
  - Wantley Estate - to the east of the junction with London Road);
  - Brighton Road - to the east of the junction with London Road); and
  - London Road - at three locations in vicinity of the site.

## 2 Trip Analysis

### 2.1 Overview

- 2.1.1 For this purpose of this Technical Note, and based on previous reviews of the site and concept masterplanning work undertaken, it is assumed that the site could accommodate, in spatial capacity terms, approximately 200 residential dwellings. The trip generation and distribution exercises follow best practice methodology and are described below.

### 2.2 Trip Generation

- 2.2.1 The industry-standard 'TRICS' trip rate database, Version 7.11.2, has been used to calculate a total vehicle trip rate for comparable sites in the South East of England for the Use Class '03 – Residential, A – Houses Privately Owned'. The trip rates and associated trip generation for the site have been agreed as per the TA Scoping Report and associated WSCC response.
- 2.2.2 The total vehicle trip rates from TRICS for the comparable sites are provided in **Table 2.1**, alongside the overall trip generation for the site for 200 dwellings.

**Table 2.1: Total Vehicle Trip Rates and Generation**

	AM Peak (08:00-09:00)			PM Peak (17:00-18:00)			12 hour (07:00-19:00)		
	Arr	Dep	2-Way	Arr	Dep	2-Way	Arr	Dep	2-Way
Total vehicle trip rates	0.14	0.372	0.512	0.347	0.149	0.496	2.241	2.246	4.487
Total vehicle trip generation (200 units)	28	74	102	69	30	99	448	449	897

### 2.3 Trip Distribution & Assignment

- 2.3.1 The vehicular distribution for the development has been based on car drivers travelling from the Middle Layer Super Output Area (MSOA) most representative to the site to other MSOA's in England, based on the 2011 Census 'Journey to Work' data. This is considered representative, as the vast majority of peak hour trips generated by a residential development would be expected to comprise journeys to and from work.
- 2.3.2 The 'Horsham 014' MSOA, within which the site is located, was designated as the location of usual residence (origin), with all other MSOA's designated as the places of work (destinations). All MSOAs with 1 or more vehicle trips have been utilised, which represented approximately 98% of the total trips and is therefore considered representative. Census data underpinning the trip distribution exercise is included at **Appendix A**.
- 2.3.3 The resulting distribution of trips across key routes within the vicinity of the site is presented in **Table 2.2**.

**Table 2.2: Trip Distribution**

Route	% Traffic
North on A281 London Road	45%
South to A281 Brighton Road via A281 London Road	20%
South to A2037 Barrow Hill via A281 London Road	19%
<b>'Internal' Trips<sup>1</sup></b>	
North to A281 London Road	1.6%
South to High Street	10.4%

<sup>1</sup> 16% within Henfield and not impacting the three junctions to be modelled as per para 1.3.1.

South to Church Street	2.4%
South to A2037	1.6%
Total	100%

- 2.3.4 Approximately 46% of total vehicular trips will route north of the A281 London Road / Deer Park roundabout and the remainder of trips would go southbound along the A281 London Road, routing to areas within Henfield (12.8%), before routing south (21%) and east (20%) at the A281 Brighton Road / A2037 High Street / Golden Square roundabout. Trip distribution and assignment for the AM and PM peak periods is shown on the traffic flow diagrams attached at **Appendix B** and **Appendix C** respectively.

## 3 Next Steps

- 3.1.1 PF seek approval from West Sussex County Council (WSCC) on the trip distribution and assignment outcomes presented in this TN, which would ultimately be taken forward within a Transport Assessment to support the planning application.

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Rev	Suit	Description	Date	Originator	Checker	Approver
F01	-	Final	23-Oct-2024	UK	MN	PC

Ref. reference. Rev revision. Suit suitability.

Appendix A Census Data

## Appendix B Trip Distribution

## Appendix C Trip Assignment