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Goodman Developments Ltd.

Redevelopment of the Former Jaguar Factory

Browns Lane

Coventry

Transport Assessment

July 2009

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1.0 INTRODUCTION

1.01 Lawrence Walker Limited (LWL) has been appointed to provide traffic and transportation advice in relation to a proposed mixed-use development on a site formerly known as the Browns Lane Factory, which was occupied by Jaguar Cars Ltd. The site is located in the Allesley area of Coventry on the western edge of the city and is shown in **Figure 1**.

1.02 The Report is structured as follows:

- i) Relevant policy and planning background is described;
- ii) The existing conditions are described;
- iii) The proposed development is described;
- iv) The traffic generation of the former Jaguar Factory, the maintained land uses and the proposed development is estimated;
- v) A comparison of the traffic generation for the former use and the proposed development is presented;
- vi) Public Access Strategy is described;
- vii) Potential of the site to provide for movement by non-motorised modes of travel (cycling and walking) and by the mobility-impaired is described.

1.03 The Authority responsible for planning and transportation issues within the area adjacent to the site is Coventry City Council (CCC).

1.04 This Report seeks to demonstrate to CCC that the traffic generation of the proposed development at the Browns Lane site will not exceed the traffic generation of the former use. On this basis the proposed development could thus be satisfactorily accommodated on the adjacent transport network without any traffic impacts over and above those associated with the former land use.

2.0 POLICY AND PLANNING BACKGROUND

Existing Planning Consents

2.01 The site was used for the production of Jaguar Cars from 1951 to 2005. During this period it was also used as their corporate headquarters. On this basis it is considered that the site can be classed as “Brownfield” with a former Industrial Land Use (B2).

Relevant Policies

2.02 This section provides a review of the following policies which are considered to be relevant in relation to the proposed development and have thus been incorporated into this TA:-

- i) Planning Policy Guidance 13 – Transport;
- ii) Guidance for Transport Assessment (March 2007);
- iii) West Midlands Regional Spatial Strategy (January 2008);
- iv) Coventry Development Plan (2001);
- v) West Midlands Local Transport Plan (March 2006).

Planning Policy Guidance 13 (PPG13) - Transport

- 2.03 PPG13 is a national guidance document relating to the transport aspects of development. The key messages within PPG13 are the need for an integrated approach to providing for transport as part of developments and also for planning so as to reduce the need to travel.
- 2.04 PPG13 states that a Transport Assessments (TA) should be prepared and submitted with planning applications relating to developments that are likely to have significant transport implications; this will then be used to determine whether the impact of the development on transport is acceptable.
- 2.05 The guidance also sets out tools by which travel demand can be managed, such as, parking controls, park and ride schemes, traffic management, public transport provision, and improvements/provision of safe cycling and pedestrian routes. In addition to the measures implemented at the developments fruition the document promotes the use of Travel Plans (TP's) that manage travel demand into the future and seek to work with individuals to influence their modal choice.

Guidance for Transport Assessment

2.06 In March 2007 the 'Department for Transport' (DfT) produced the 'Guidance on Transport Assessment' (GTA) superseding previous guidance produced by the Institution of Highways and Transportation (IHT). The purpose of the GTA is to provide assistance in relation to determining whether a proposed development requires the production of either a TA or Transport Statement. The GTA also assists with determining the level and scope of the required assessment and the content of the required report.

2.07 Some relevant differences between the GTA in comparison to the previous IHT Guidelines are summarised as follows:-

- The reports should examine the accessibility of the site via all modes of travel;
- Assessment years are now post 'application year' rather than post 'opening year' of the development;
- Demand management is seen as an alternative to building/enlarging infrastructure. A key demand management tool will be the TP.

West Midlands Regional Spatial Strategy (RSS) (formerly Regional Planning Guidance for the West Midlands (RPG11))

2.08 The main purpose of the RSS is to provide a long-term land use and transport planning framework for the West Midlands region. The relevant transport policies are as follows:-

- i) **Policy T1: Developing accessibility and mobility within the region to support the Spatial Strategy** – Aims to improve access within the region so as to support the Spatial Strategy, reduce the need to travel, expand travel choice, tackle congestion, improve safety and protect the environment;
- ii) **Policy T2: Reducing the need to travel** – Aims to reduce the need to travel, especially by car, and reduce journey lengths;
- iii) **Policy T3: Walking and Cycling** – Aims to increase opportunities to access walking and cycling facilities;
- iv) **Policy T5: Public Transport** – Aims to develop an integrated public transport system which is highly accessible and affordable;
- v) **Policy T7: Car Parking Standards and Management** – Discusses the requirement for new developments to adhere to maximum car parking standards in-line with those set out in PPG13. Parking provision related to the proposed development will be discussed later in this Report;
- vi) **Policy T8: Demand Management** – Aims to identify measures needed to manage peak hour travel demand;
- vii) **Policy T10: Freight** – Aims to improve the efficiency of freight movements.

Coventry Development Plan (CDP)

2.09 The Coventry Development Plan was adopted in December 2001. Policies relevant to the proposed development and this Report are as follows:-

- i) **Policy AM 1: An Integrated, Accessible and Sustainable Transport Strategy** – Aims to promote and encourage in an integrated, accessible and sustainable way the safe, efficient and easy movement of both people and goods throughout the city;
- ii) **Policy AM 2: Public Transport** – Aims to develop the public transport system to meet the needs of the people and reduce car usage;
- iii) **Policy AM 3: Bus Provision in Major New Developments** – Major new developments must include, or fund, works to facilitate the provision of safe, convenient and efficient bus services;
- iv) **Policy AM 9: Pedestrians in New Developments** – Discusses that appropriate pedestrian routes must be incorporated into the design of new developments;
- v) **Policy AM 12: Cycling in New Developments** – Discusses that convenient cycle routes must be incorporated into the design of new developments on the basis of the scale of the development;
- vi) **Policy AM 20: Road Freight** – States that routes for use by heavy goods vehicles will be defined;
- vii) **Policy AM 22: Road Safety in New Developments** – Discusses that new developments should incorporate safe and appropriate on-site facilities and safe access to the local highway.

West Midlands Local Transport Plan (LTP) – March 2006

2.10 The current West Midlands LTP was published in March 2006. The main objectives of the LTP are as follows:-

- Ensure that the transport system underpins the economic revitalisation of the West Midlands Metropolitan Area;
- Ensure that transport contributes towards social inclusion by increasing accessibility for everyone;
- Move towards a more sustainable pattern of development and growth;
- Improve safety and health for all;
- Integrate all forms of transport with each other, with other land uses, and other policies and priorities.

2.11 The LTP states that Travel and Transport issues can be related to one or more of the following issues:-

- Congestion – where demand exceeds available capacity;
- Air Quality – where increased traffic levels and congestion lead to less efficient motoring and an increase in vehicle emissions;
- Accessibility – where limited access to work, education, health facilities and fresh food can lead to social exclusion;
- Safety – where the desire to achieve safer motoring is a key objective.

2.12 In order to address the above issues the LTP identifies the following relevant targets:-

- No more than a 7% increase in road traffic mileage between 2004 and 2010;
- No increase in morning peak traffic flows into the 9 LTP centres between 2005/6 and 2010/11;
- Increase the morning peak proportion of trips by public transport into the 9 LTP centres as a whole from the 2005/6 forecast baseline of 32.73% to 33.8% by 2009/10;
- On target routes in the AM peak (0700 - 1000) accommodate an expected increase in travel of 4% with a 5% increase in journey times between 2005 and 2011.

Parking Standards

2.13 CCC has advised that they are currently determining parking provision at new developments on the basis of guidance set in Planning Policy Guidance 13 (PPG13).

3.0 EXISTING CONDITIONS

General Location

3.01 The development site is located in the Allesley area of Coventry, which is approximately 6km north-west of the City Centre on the extremity of the urban area. The site is bounded by residential housing along Browns Lane to the north-west and B4076 Coundon Wedge Drive to the south-east. Adjacent to the sites' north-east boundary is farmland and un-developed land forms a buffer between the site's south-west boundary and further residential housing in Allesley.

Current Land Use

3.02 The proposed development site is currently occupied by Jaguar Cars Ltd and was formerly home to all of the company's British based car manufacturing. Car production was ceased in 2005; subsequently other administrative operations have been phased out and relocated to the Whitley Engine Plant in the Coventry. However, Jaguar still maintains a small presence at the site through the company's Heritage Museum and car interior wood veneer manufacturing centre. The main access to the site is via the B4076 Coundon Wedge Drive roundabout.

Local Highway Network

3.03 The main traffic routes serving the site are as follows:-

- i) **B4076 Coundon Wedge Drive** is single carriageway road, which serves as local distributor route linking the Browns Lane site with Allesley and major routes into Coventry City Centre and out to the wider higher network. Although located within Coventry, this route does not pass through any residential areas and is bounded by undeveloped land;

- ii) **Browns Lane** is a single carriageway road which runs for approximately 1.5km parallel to the north-western side of the development site linking Allesley to the south and the village of Hawks End to the north. A series of small residential “cul-de-sacs” are accessed off Browns Lane via simple priority “T-junctions”. In addition, there are accesses to residential homes on both sides of the carriageway and footways are provided on both sides of the carriageway;
- iii) **A4114 Hollyhead Road** serves as a main arterial route linking the centre of Coventry with the western side of the city and further westwards towards major routes to Birmingham;
- iv) Adjacent to the site’s south-western corner there is a private road which provides access to existing sports and social club facilities. This road joins the adopted highway network via a priority “T-junction” with Browns Lane.

Existing Site Traffic Flows

3.04 The traffic flows resulting from the existing land uses on the site are assumed to be related to Jaguar Cars Ltd. buildings which have been maintained at Browns Lane since the closure of the vehicle manufacturing element of the site. With the exception of the small Heritage Centre, all vehicles that currently enter/exit the site do so via the Coundon Wedge Drive roundabout. Traffic surveys were undertaken at this location on Tuesday 19th June 2007. Full traffic survey results are presented in **Appendix A**.

3.05 Historically, development on the site was partly served by two accesses onto Browns Lane which whilst still in existence, are not used at present. As the Section 52 Agreement for Jaguar permits up to 220 management and customer vehicles (cars) to use the combined accesses, the re-use of the Browns Lane accesses for car traffic to this level must be acceptable following development.

Accident Records

3.06 Personal Injury Accident (PIA) data has been obtained from Mott MacDonald (MottMac) who maintains PIA data for West Midlands Region. PIA data was obtained for several junctions and links around the proposed development site, covering the most recent available 3 year period (19/03/2004 to 19/03/2007). The resulting analysis is presented **Appendix B** together with a plan detailing the locations and the area analysed. The following Table provides a summary of the accident records:-

Table 1: Summary of Recorded Personal Injury Accidents

LOCATION	2004			2005			2006			2007		
	SL	SE	F	SL	SE	F	SL	SE	F	SL	SE	F
A4114/B'HAM RD/COUNDON WEDGE DR/ALLESLEY OLD RD R'BOUT	1	1	0	2	0	0	1	0	0	3	0	0
COUNDON WEDGE DRIVE	1	0	0	1	0	0	0	0	0	0	0	0
COUNDON WEDGE DR/FORMER JAG WORKS ACCESS R'BOUT	1	0	0	0	0	0	0	0	0	0	0	0
COUNDON WEDGE DRIVE/BROWNSHILL GREEN RD/WALLHILL RD	1	0	0	0	0	0	0	0	0	0	0	0
TAMWORTH RD/LONG LANE	0	0	0	0	0	0	3	0	0	1	0	0

Note: SL – Slight; SE – Serious; F – Fatal

3.07 **Table 1** shows that a total of 16 recorded accidents (15 slight, 1 serious) occurred within the study area during the 3 year assessment period.

3.08 Further to **Table 1** and the Accident Location Plan, it is noted that there have been a number of accidents at the Coundon Wedge Dr/Hollyhead Rd/Allesley Old Rd/Pickford Way/Birmingham Rd junction (A4114 Roundabout). This junction is therefore examined in more detail in **Table 2**.

Table 2 A4114 Roundabout – Accident Record

Year	Acc Reference & Arm	Severity	Contributory Factors
2004*	Ref. 2 - Circulatory Carriageway	Serious	Failed to look properly; failed to judge other person's path or speed; passing too close to cyclist
	Ref. 14 - Hollyhead Road	Slight	Poor turn or manoeuvre
2005	Ref. 4 - Birmingham Road	Slight	Poor turn or manoeuvre
	Ref. 5 - Hollyhead Road	Slight	Careless, reckless or in a hurry; failed to look properly; failed to judge other person's path or speed
2006	Ref. 7 - Allesley Old Road	Slight	Impaired by alcohol
2007*	Ref. 9 - Circulatory Carriageway	Slight	Poor turn or manoeuvre
	Ref. 10 - Allesley Old Road	Slight	Failed to judge other person's path or speed
	Ref. 12 - Coundon Wedge Drive	Slight	Failed to look properly; careless, reckless or in a hurry

* denotes data supplied for an incomplete calendar year

3.09 **Table 2** shows that all 8 of the recorded accidents occurring within the vicinity of the A4114 roundabout appear to be caused by driver error or impairment.

3.10 As indicated on the Accident Location Plan (see **Appendix B**) the 8 accidents associated with this junction were spaced throughout the area analysed; 3 of which (Ref 4, 5 and 12) occurred some distance away from the roundabout itself. The analysis of the available data thus indicates that there are no apparent highway safety issues that require remedial works at this location.

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- 3.11 The 8 remaining recorded accidents in the study area are summarised as follows:-
- 1 accident involved a driver losing control while negotiating a right hand bend and colliding with an oncoming vehicle. 1 accident involved a vehicle failing to negotiate the former Jaguar works roundabout and colliding with an oncoming vehicle; it should be noted that the driver who lost control of his vehicle provided a positive alcohol breath test. 1 accident involved a vehicle causing a collision while changing lanes on the Coundon Wedge Drive/Brownhill Green Road roundabout. 1 accident involved a vehicle losing control due to excessive speed while negotiating the Tamworth Road/Long Lane junction. 1 accident involved a vehicle colliding with a cyclist after passing too closely. 1 accident involved a right turning vehicle crossing the path of oncoming traffic while negotiating the Tamworth Road/Long Lane priority junction.
- 3.12 In summary, the majority of recorded accidents occurring within the study area can be attributed to driver error or driver impairment. Further to this it is considered that the total of 16 accidents occurring in a 3 year assessment period over such an area does not represent a significant safety problem and therefore no remedial works are proposed as part of the development scheme.

4.0 PROPOSED DEVELOPMENT

4.01 The proposals for the redevelopment of the former Jaguar Cars Ltd. site consist of a mixed use scheme, comprising mainly B2 employment elements with separate private residential areas. A breakdown of the proposed Land Uses by floor area is shown in the current site Masterplan presented in **Appendix C** and listed below:-

- B2 Industrial Units 75,519 m²
- B1 Office 6,986 m²
- Residential 172 dwellings

Maintained Land Use

4.02 Jaguar Cars Ltd. continues to maintain a number of buildings including its car interior wood veneer manufacturing centre and on-site Heritage Museum at the Browns Lane side of the site. The manufacturing buildings will continue to be maintained for use by Jaguar Cars Ltd. adjacent to the proposed development.

Site Access Strategy

Employment Uses Site Access

4.03 All employment related vehicles will access the site via the existing Coundon Wedge Drive roundabout junction. The development proposals include the provision of a new internal private access road which will serve all the major units as well as parking areas on site. The proposed road will join the currently adopted local highway network via the Coundon Wedge Drive roundabout.

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- 4.04 It should be noted that the existing signal controlled junction, which is located on site approximately 70 metres from the roundabout, is to be retained within the proposed development. In addition to serving accesses to industrial units and car-parks within the proposed development, this junction will also provide a link to the existing wood veneer manufacturing centre which is to be maintained at Browns Lane.

Residential Uses Site Accesses

- 4.05 Access to the smaller of the residential developments will be taken directly from a simple priority "T- junction" between the existing sports club private access road and a cul-de-sac. Emergency vehicles will be able to access the industrial elements of the proposed development via a strengthened footway/cycleway which links the sports club access road with the southern end of the proposed internal road.
- 4.06 Further to the north along Browns Lane an additional site access road is proposed. This road is proposed to serve the larger residential enclave and also act as a bus access road which will provide a "thru-route" for buses only between Browns Lane and Coundon Wedge Drive. It will penetrate the development site linking with the internal access road at a centrally located priority "T-junction". The "thru-route" will be gated and closed for all non-bus vehicles including any site employment related uses.

General Parking Standards

- 4.07 PPG13 states that both Regional and Local Planning Policies in development plans should set maximum levels of parking for broad classes of development. Maximum standards should be designed to be used as part of a package of measures to promote sustainable transport choices. There should be no minimum standards for development, other than parking for disabled people.
- 4.08 Further to standards outlined in PPG13 and based on previous experience gained from working on other developments in Coventry, the following maximum car parking standards are considered to be appropriate for use when determining the development site parking provision for the major components:-

Employment

- B2 use – 1 space per 60 m²

Residential

- For dwellings with parking within the curtilage of the property, a maximum of 2 spaces per dwelling are permitted;
- For dwellings with parking outside of the property, a maximum of 1 space per dwelling is permitted, with visitor parking provision decided 'on merit'. In practice, visitor parking is generally 25-50% of the total;
- For managed schemes, a maximum of 1 space per dwelling is permitted. This includes provision for visitors.

Disabled Parking Requirements

- 4.09 Disabled parking will be provided on the basis of 1 disabled parking space to be made available for every 20 car parking spaces (5%).
- 4.10 All proposed disabled parking provision will conform with relevant legislation, and where possible the final scheme design will ensure that:-
- Disabled parking is appropriately located, signed, marked and lit;
 - Clearly marked with the British Standard 'Disabled' symbol in accordance with BS3262 Part 1;
 - Adequate dropped kerbing is provided;
 - All disabled parking spaces allow easy wheelchair access to and from vehicles;
 - Adequate ramp and elevator provision is incorporated into the detailed car park and building design.

Cycle Parking Requirements

- 4.11 It is considered appropriate to provide cycle parking on the basis of 1 cycle parking space for every 10 car parking spaces (10%). All new cycle parking facilities will be designed and located in accordance with current best practice and will seek to be clearly visible, well-designed, covered, secure and accessible for users of the site.

Motor Cycle Parking

- 4.12 Motor cycle parking spaces will be provided adjacent to the cycle parking in accordance with CCC requirements.

5.0 TRAFFIC GENERATION ASSESSMENT

5.01 This section of the Report summarises the traffic generation of the former Jaguar Cars Ltd. site, the maintained Jaguar land use and the proposed development at the Browns Lane site.

5.02 As previously stated, this Report seeks to demonstrate that the traffic generation of the proposed development does not exceed that of the former use. In order to determine the additional impact, if any, caused by the new development proposals compared with the former Jaguar Cars Ltd. site it is necessary to adopt a consistent approach to determining the traffic generation. Therefore the same methodology has been used to estimate the traffic generation of the former land use and the proposed development.

Previous Jaguar Land Use

5.03 The former Jaguar land use at Browns Lane consisted of approximately 162,000 m² of B2 industrial units used for car manufacturing.

Trip Rate Summary

5.04 Further to the above, trip generation rates have been obtained from the TRICS database for B2 industrial units. Although not strictly valid mathematically (due to there being less than 20 entries) in order to present a robust assessment, 85th percentile trip generation rates have been applied.

Table 4: Summary of B2 Industrial Unit Trip Rates

Trip Rates (Vehicles per Hour/100 m²)		
	Arrivals	Departures
AM (08:00 – 09:00)	0.480	0.112
PM (17:00 – 18:00)	0.073	0.291

Table 5: “Former Uses” Traffic Generation

Vehicle Trip Type	Traffic Generation			
	AM		PM	
	Arrivals	Departures	Arrivals	Departures
Cars/LGV	591	138	90	359
HGV	66	15	10	40
Total Vehicles per Hour	657	153	99	398

Maintained Jaguar Land Use

5.05 In addition to B2 units, the Browns Lane site also included the Jaguar Heritage Museum and the wood veneer manufacturing centre and these latter buildings are to be maintained for use by Jaguar within the proposed development.

5.06 Jaguar car production at Browns Lane ceased in 2005 resulting in the redundancies and/or relocation of vehicle manufacturing jobs. It is therefore considered that any traffic flows entering or exiting the site at the time of the June 2007 traffic surveys are associated with existing land uses which are to be maintained on site by Jaguar Cars Ltd. On this basis, the surveyed traffic flows are assumed to represent the traffic generation for the maintained land uses, which is summarised in the following table. Full traffic generation details can be found in **Appendix D**.

Table 6: “Maintained Uses” Traffic Generation

Vehicle Trip Type	Traffic Generation			
	AM		PM	
	Arrivals	Departures	Arrivals	Departures
Cars/LGV	58	18	14	98
HGV	3	3	1	3
Total Vehicles per Hour (VPH)	61	21	15	101

Comparison with Jaguar Data

- 5.07 Whilst historic data for employment levels and HGV traffic from the site when in *full* production is not available, data from 2004 (the last year of *substantial* car manufacturing) is. It is thus useful to do a quick comparison with the TRICS data for consistency.
- 5.08 In 2004, Jaguar has advised that 36,604 vehicles were produced. For each vehicle made, a body shell was delivered from Castle Bromwich and each completed car left on a different trailer. Body shells were shipped in multiples of 13, whilst finished vehicles left in blocks of 7. It thus flows that a total of some 16,000 car transporter movements would have occurred annually, two-way.
- 5.09 In order to build a car, for every car made Jaguar has advised that there would have been around 0.25 HGV deliveries. Thus some 9,000 HGV's would have visited the site in 2004 to allow 36,604 cars to be manufactured, equating to 18,000 movements two-way. Overall therefore, HGV movements would have numbered 34,000 movements annually, giving about 150 per day, or possibly 25 in any one hour as a maximum. This is substantially lower than the TRICS based numbers given in **Table 5** above, but that is to be expected, since the Plant was no longer in full production by 2004. As the TRICS numbers are higher, their use remains robust and generally in line with what might have been expected when Jaguar was in full production.
- 5.10 Moving on to employee trips, Jaguar has advised that in 2004, around 2,000 employees were based on the site, of which 500 were office staff and 1,500 were production workers. Of these (in total) 1,250 drove each day, suggesting a mode split of around 62%, which is not unreasonable. Assuming that 80% of the production workers worked extended days or shifts, then the maximum morning peak-hour inbound employee flow would have been around 62% of 800, or 500 car trips.

5.11 Additionally, Jaguar has advised that in 2004, just over 121,000 m² of floor-space was in use, which would suggest a rate of 1.6 employees per 100 m². Whilst this is 20% lower than the typical norm of around 2.0 for a B2 facility, as stated earlier, the Plant was not in full production at that time, with mostly unsocial shift working having already been curtailed. As a result, the figure given in **Table 5** of 591 is likely to be very close to the maximum number of peak hour inbound trips produced by the site when in full production, once LGV's and some additional office staff have been allowed for. As a result, the TRICS data can be seen to offer a very good proxy for the former Jaguar occupation of the site, and is thus suitable for use in the subsequent analysis.

Proposed Development

5.12 Trip generation rates have been obtained from the TRICS database for B1 office, B2 industrial units, B8 warehousing units and residential elements as applicable to the proposed development. It should be noted that the same B2 trip rates have been used for the proposed development as for the former Jaguar site B2 units as otherwise, inconsistent results would be obtained for what are similar uses. In order to present a robust assessment, 85thile rates have again been applied.

Trip Rate Summary

5.13 The following provides a summary of the trip rates to be applied in relation to the major development land uses proposed on the site. Details of the interrogation methodology applied to obtain the TRICS trip rates are presented in **Appendix E**.

Table 7: Summary of B2 Industrial Unit Trip Rates

Trip Rates (Vehicles per Hour/100 m ²)		
	Arrivals	Departures
AM (08:00 – 09:00)	0.480	0.112
PM (17:00 – 18:00)	0.073	0.291

Table 8: Summary of Residential Trip Rates

Trip Rates (Vehicles per Hour/Household)		
	Arrivals	Departures
AM (08:00 – 09:00)	0.289	0.575
PM (17:00 – 18:00)	0.565	0.331

Table 9: “Proposed Uses” Traffic Generation (Excludes those maintained)

Vehicle Trip Type	Traffic Generation			
	AM		PM	
	Arrivals	Departures	Arrivals	Departures
Cars/LGV	515	201	161	341
HGV	52	12	8	31
Total Vehicles per Hour	567	213	169	372

Net Traffic Generation Summary – Overall Site

5.14 The traffic generation of both the former Jaguar B2 land use and the proposed development have been estimated by applying the above trip rates to the previously identified site areas. In order to present an overall Browns Lane site traffic generation for both the former and proposed site, the trips associated with the maintained land uses have been added to the former Jaguar B2 land use and the proposed development. A comparison of the resultant peak hour traffic movements is shown below in **Table 10** below in terms of PCU's, since this is the most relevant comparison to adopt when dealing with a previous B2 use:-

Table 10: Traffic Generation Comparison

Browns Lane Site	Traffic Generation (PCU's per Hour)					
	AM			PM		
	In	Out	2-way	In	Out	2-way
Overall Former site	819	200	1,019	130	562	692
Overall Proposed Site	682	249	931	192	508	700
NET Traffic Generation (Overall Site)	-137	49	-88	62	-54	8

Note:- All figures include existing Jaguar Cars Ltd land uses which will continue to be maintained within the proposed development.

5.15 The above **Table 10** demonstrates that in the AM peak hour the proposed development will generate a much lower 2-way traffic flow than the former Jaguar Cars Ltd. site. In the PM peak hour, the figures are almost identical. As such, no further traffic analysis is required to demonstrate the acceptability of the scheme.

Browns Lane Traffic Summary

5.16 Legally, the extant Section 52 Agreement for Jaguar permits up to 220 management and customer vehicles (cars) to use Browns Lane for access per day. Following re-development, commercial traffic will cease but will be replaced by dedicated traffic from the two residential enclaves. A total of 172 units will be served, for which **Appendix D** suggests around 150 car trips two-way in either peak hour. Simplistically therefore, traffic would easily fit within the legal limit.

5.17 Practically, use of Browns Lane by 220 management staff and customers per day has the potential to attract maybe 200 inbound trips during the am peak hour; there having historically been very few visitors to the car Plant along this route. In the outbound direction, one might expect 33% of this number (around 70 trips) to have been made (**Table 6**). On a two-way basis, the morning peak hour flow would thus have been about 250 vehicles; well in excess of the proposed 150.

5.18 Individually, the inbound morning peak hour flow into the site will clearly be significantly reduced following re-development, when compared to either that permitted or indeed implied by the Section 52 Agreement (some 50 trips, compared to around 200). Outbound, the figure proposed is around 100, which is slightly above the most likely extant use figure of 70. There is thus a potential for a slight increase, but this would be imperceptible in practice. It must also be remembered that there is actually no limit on the outbound movement numerically (just the number of eligible users) and thus the permitted figure could be much higher. There is also no limit on the number of trips made per permitted parking space, meaning that customer usage throughout the day could also have legally been higher. Overall therefore, it is unlikely that any impacts along Browns Lane would occur following re-development (relative to the legally permitted base position) and as a result, no further analysis is required.

6.0 PUBLIC TRANSPORT STRATEGY

Existing Public Transport Network

6.01 **Figure 2** indicates that there are several bus stops located within the vicinity of the proposed development. The indicated bus stops are located along either Browns Lane or Birmingham Road and several are located within the recommended 400m walking distance from the proposed development site.

6.02 The following bus routes currently operate within the vicinity of the proposed development:

- **Route 7** Coventry to Brownhill Green (via Barkers Butts Lane);
- **Route 75** Birmingham to Brownhill (via Coundon);
- **Route 900** Birmingham to Coventry (via Meridian, Birmingham International Airport, Sheldon).

6.03 **Route 7** runs between Coventry (Pools Meadow) Bus Station to the turning circle located at the northern end of Browns Lane. The service runs during each weekday and on Saturdays. No service is provided on a Sunday.

6.04 **Route 75** also runs between Coventry (Pools Meadow) Bus Station to the turning circle located at the northern end of Browns Lane. The service runs during each weekday and on Saturdays and Sundays.

6.05 **Route 900** runs between Digbeth Coach Station (Birmingham) and Coventry (Pools Meadow) Bus Station via Sheldon, Birmingham International Airport and Meridian. The service passes through Allesley along Birmingham Road to the south of the site and runs during each weekday and on Saturdays and Sundays.

6.06 A summary of the frequency of the aforementioned bus services is as follows:-

Table 11: Local Bus Services Passing Close to the Site

Service No.	Day	Operating Times	Peak Period	Peak Frequency
7	Weekday	6:30am to 6:00pm	6:30am to 6:00pm	Every 30 minutes
	Saturday	6:50am to 5:45pm	6:50am – 5:00pm	Every 30 minutes
	Sunday	No Service		
75	Weekday	6:30pm to 11:30pm	6:30pm to 7:30pm	Every 30 minutes
	Saturday	6:50am to 9:15 am & 6:30pm to 11:30pm	6:50am to 8:50am	Every 30 minutes
	Sunday	9:30am to 11:30pm	9:30am to 11:30pm	Every 60 minutes
900	Weekday	6:00am to midnight	6am to midnight	Every 30 minutes
	Saturday	6:30am to midnight	6:30am to midnight	Every 30 minutes
	Sunday	6am to midnight	10:30am to midnight	Every 30 minutes

6.07 The main Coventry Railway Station is located to the south of the City Centre. In addition there are two local Stations in Canley, which is approximately 5½ km away from the proposed development, and Tile Hill, which is approximately 7 km away from the proposed development.

-
- 6.08 Coventry Station is connected to the rest of the West Midlands Region by the West Coast Main Line (WCML) which runs from London Euston through Coventry to Birmingham New Street and from there to the north of the Country. It is also directly connected to Warwickshire via Bedworth, Nuneaton, Rugby and Leamington Spa.
- 6.09 The Railway Station is served by the Route 27 (Coventry Station - Coventry - Stoke Hill - Wyken - Walsgrave Hospital via Walsgrave Road) which routes via the Coventry Bus Station, as do the bus routes which operate within the vicinity of the proposed development. The Station has a variety of facilities available including 572 car park spaces, 30 cycle spaces, 18 disabled parking spaces, CCTV monitoring, shops and ATMs.

Proposed Development – Public Transport Strategy

- 6.10 As previously stated, it is proposed that a bus access road will link Browns Lane with Coundon Wedge Drive via a centrally located priority “T-junction” with the internal access road. The permeation of the site by the bus access road and internal road is considered to significantly increase the attractiveness of public transport to users of the development site. In addition to the bus access road, it is proposed to provide a “thru-route” for buses only, which will be gated and closed for all non-bus vehicles including any site employment related uses.
- 6.11 All buses using the proposed gated access road would be fitted with transponders which would trigger the gate opening/closing mechanism by overrunning detector loops in the road on the approaches to the gate. This system will ensure that any employment related vehicles associated with the proposed development will not be able to enter the highway network via Browns Lane.

-
- 6.12 Of the existing bus services in the local area, the Number 7 and 75 Bus Routes could potentially be re-routed to serve the proposed development. Even without this, the existing services already provide a comprehensive service (as shown in **Table 11**) operating at times which would enable employees to easily commute to and from work at the proposed development. These services currently utilise three pairs of existing bus stops along Browns Lane which are in close proximity to the proposed residential plots and within 400m of a significant proportion of the proposed employment plots.
- 6.13 In conjunction with the existing bus stops, an additional pair of bus stops is proposed to be provided along the internal site road/bus access road at an appropriate location ensuring that the entire development site is within 400m of either the proposed or existing bus stops. It should be noted that the precise locations of bus stops are yet to be finalised and subject to further discussions with CCC.

7.0 PEDESTRIANS, CYCLISTS AND THE MOBILITY-IMPAIRED

Existing Pedestrian and Cyclist Facilities

7.01 PPG13 indicates that:

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

7.02 **Figure 3** indicates the 2km walking isochrone from the centre of the proposed development.

7.03 The isochrone illustrates that much of Allesley is within walking distance. **Figure 3** also indicates that there are many local facilities within walking distance of the proposed development.

7.04 There are currently a variety of pedestrian facilities within the vicinity of the proposed development. Both Browns Lane and Birmingham Road, which the aforementioned bus routes pass along, feature footways on either side, these routes provide access to Allesley Village centre. The B4076 Coundon Wedge Drive which fronts the development site is served by a single footway on the west side of the road. It should be noted that the majority of pedestrians are expected to access the site via the access roads off Browns Lane.

7.05 There are also a variety of pedestrian footpaths and bridleways within the surrounding area which provide access to nearby residential areas; this includes the neighbouring areas of Coundon and Brownhill Green.

7.06 PPG13 also indicates that:

“Cycling also has the potential to substitute for short car trips, particularly those under 5km and to form part of a longer journey by public transport.”

7.07 **Figure 4** indicates the 5km cycling isochrone from the centre of the proposed development; this demonstrates that a significant proportion of the north-west of Coventry is within cycling distance of the proposed development.

Proposed Facilities and Internal Site Layout

7.08 Further to the above, there is scope for trips to and from the development site to be made on foot or by cycle. The relatively flat topography in the area around Browns Lane as well as the provision of footways, cycle routes and bridleways area is particularly encouraging to these modes.

7.09 The precise internal layout of the development site has not yet been defined and is not shown in detail on the current Masterplan (**Appendix C**). However, it is proposed that segregated footway/cycleways will be provided along the internal site road serving all employment related buildings between Coundon Wedge Drive and the residential plots on both the bus access road and the sports club access road. The cycleways will take access onto the highway immediately south of the proposed residential cul-de-sac junctions.

7.10 Pedestrians wishing to access the site via the sports club access road or the bus access road will be provided with 2m wide footways on both sides of the carriageways.

7.11 To further maximise convenience for pedestrians, cyclists and the mobility-impaired within the site, it is proposed that the following be considered:

-
- Provision of segregated pedestrian/cyclist routes from the main accesses to the building entrances. Segregated pedestrian routes between the car parking areas should also be provided;
 - Provision of disabled car parking spaces close to the main building entrances;
 - Avoidance of steep gradients within the site and provision of flat or ramped access wherever possible to maximise accessibility for wheelchair users;
 - Provision of cycle parking stands close to the main building entrances. The number of stands will be agreed with CCC following submission of this Report;
 - To assist mobility-impaired users, it is recommended that tactile paving be provided at all the proposed main crossing points within the site.

7.12 This approach will help to ensure that the proposed development is a fully inclusive facility that meets the needs of all users, including those with disabilities or temporary mobility impairments. The requirement to design for disabled people would permeate all aspects of the design process and would include access to and movement within the site, as well as the interface between the development and the surrounding road network.

8.0 SUMMARY AND CONCLUSIONS

8.01 This Report has been prepared to demonstrate to CCC that the combined traffic generation of the proposed development will not exceed the traffic generation of the Browns Lane site when Jaguar Cars Ltd. manufactured its vehicles on site.

8.02 The Report concludes as follows:-

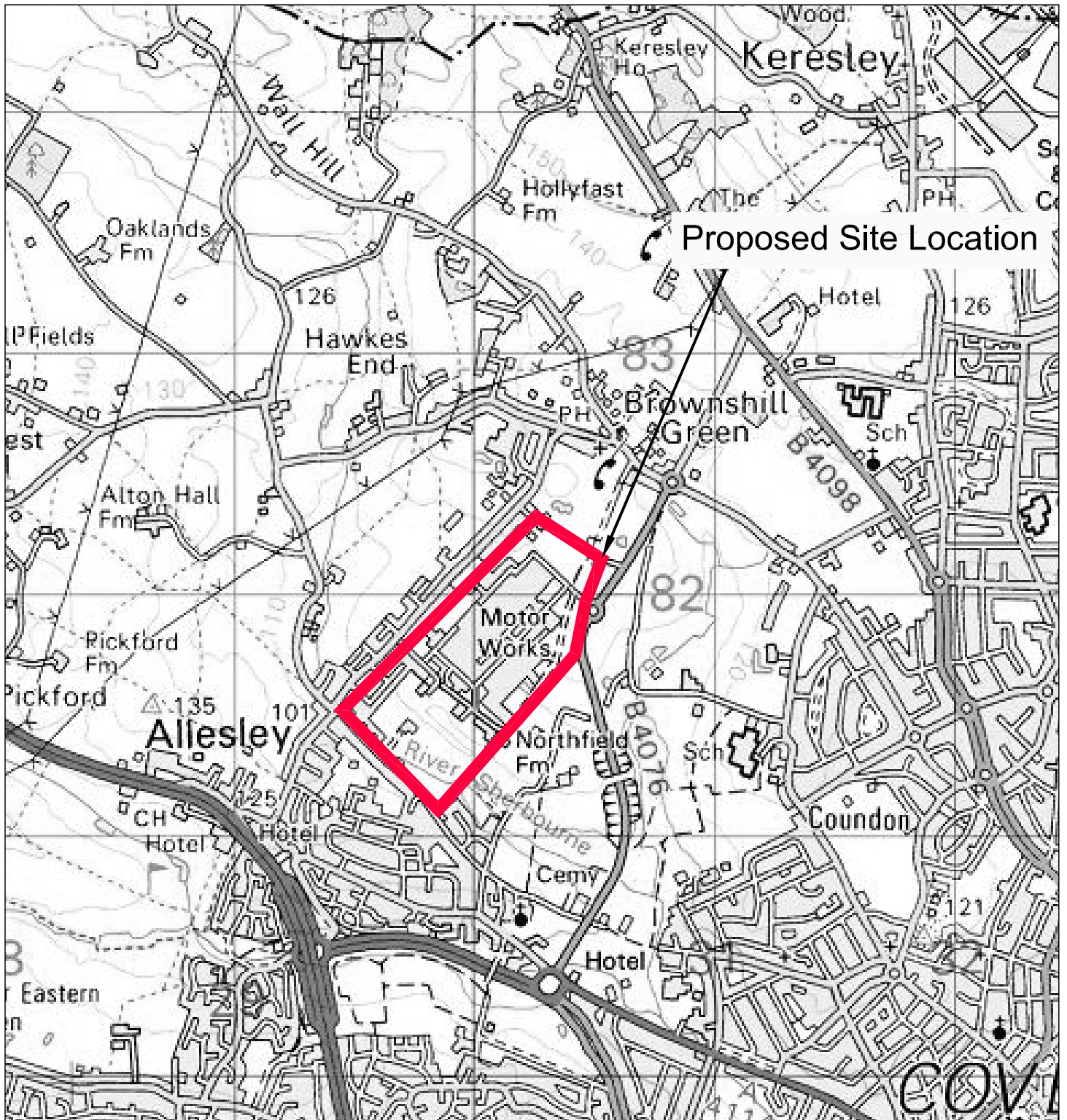
- i) The proposed development site will be located on land formally used by Jaguar Cars Ltd., and was formerly home to all of the company's British based car manufacturing. It is thus a "Brownfield" development. It is however proposed that Jaguar will still maintain a small presence at the site through the company's car interior wood veneer manufacturing centre.
- ii) The relevant transport and planning policies have been discussed in the context of the proposed development site and complied with.
- iii) The main access to the site is and will remain via the B4076 Coundon Wedge Drive roundabout. However, the proposed residential developments will take access from Browns Lane at the rear of the site.
- iv) A total of 16 accidents occurred within the study area during the 3 year assessment period. The analysis concludes that this number does not show there are any significant road safety problems on the adjacent highway. Therefore no remedial works are proposed as part of the development scheme.
- v) Parking will be provided on site in line with guidance set out within this Report.

-
- vi) The total two-way traffic generation of the proposed development together with maintained Jaguar Cars Ltd. land uses will be no more than the PCU total estimated in relation to the previously fully occupied Jaguar Cars Ltd. Browns Lane site. As a result, no further traffic analysis is required for the principle road network and no off-site improvements would be necessary to accommodate the scheme. For Browns Lane, the proposed residential uses would fit wholly within the legal limits defined by the current Section 52 Agreement, and would thus not require specific mitigation.
 - vii) There are a significant number of public transport services within the local area which provide good access to Coventry and other areas within the West Midlands without further enhancement.
 - viii) In spite of the existing good public transport access, it is proposed that a series of new public transport measures are provided in association with the development. These will include a dedicated bus 'thru-route', which will include automated gates limiting access to buses only. It is considered that such measures would considerably improve the attractiveness of the development site in terms of public transport beyond that which already exists.
 - ix) Appropriate pedestrian and cycle facilities will be provided on site to ensure that the site is accessible by non-motorised modes of travel.

8.03 On the basis of the above, this Report concludes that the transport-related requirements of the proposed development can be satisfactorily accommodated without adverse impact on the safe and satisfactory operation of the local transport infrastructure.

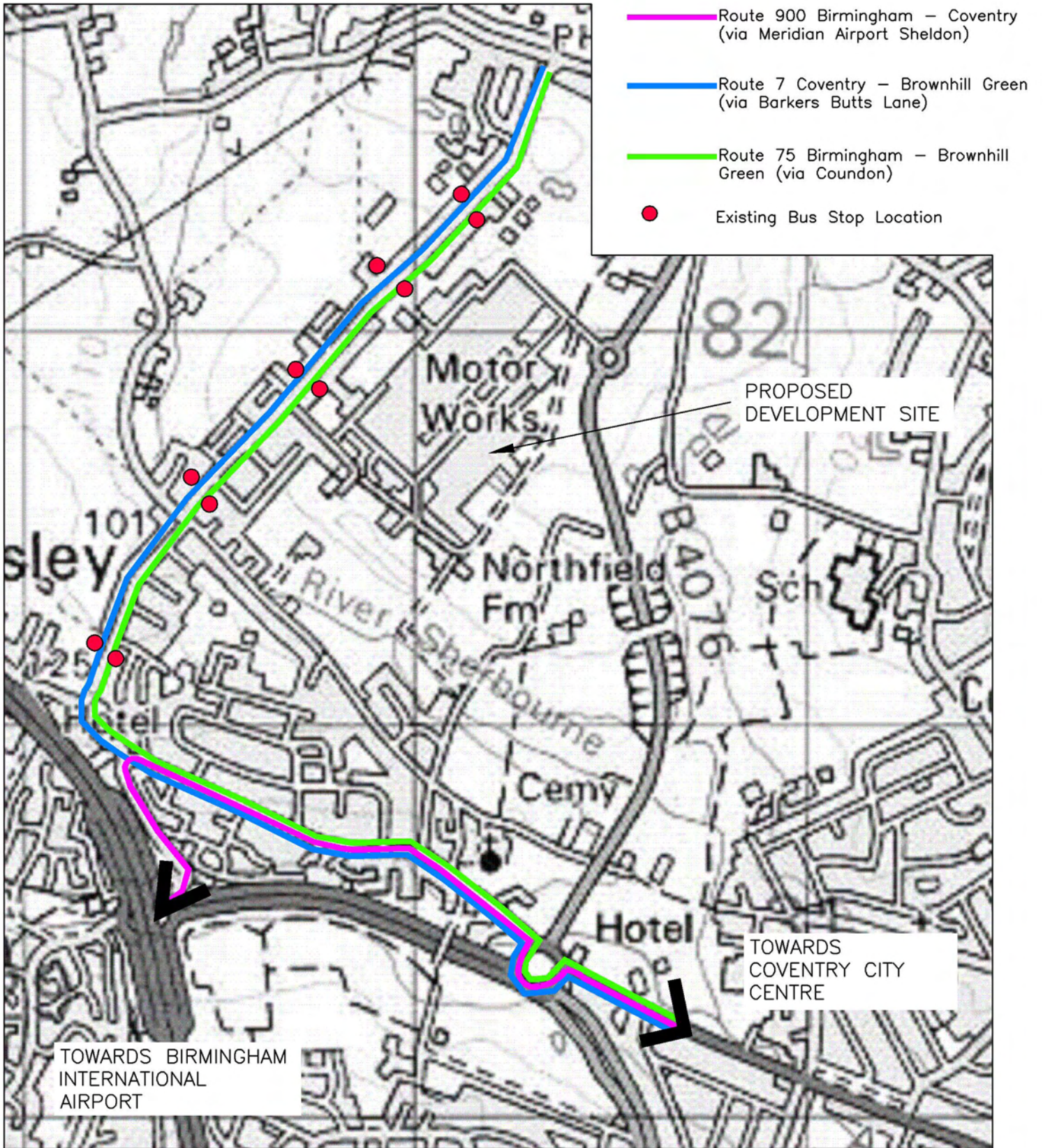
8.04 This Report is commended to CCC for their approval.

FIGURES



Browns Lane, Coventry

Figure 1: Site Location



Browns Lane, Coventry

Figure 2:
Existing Bus Network & Bus Stops

Allesley Local Shops:
Convenience Store,
Hairdressers, Florists,
Pharmacy.

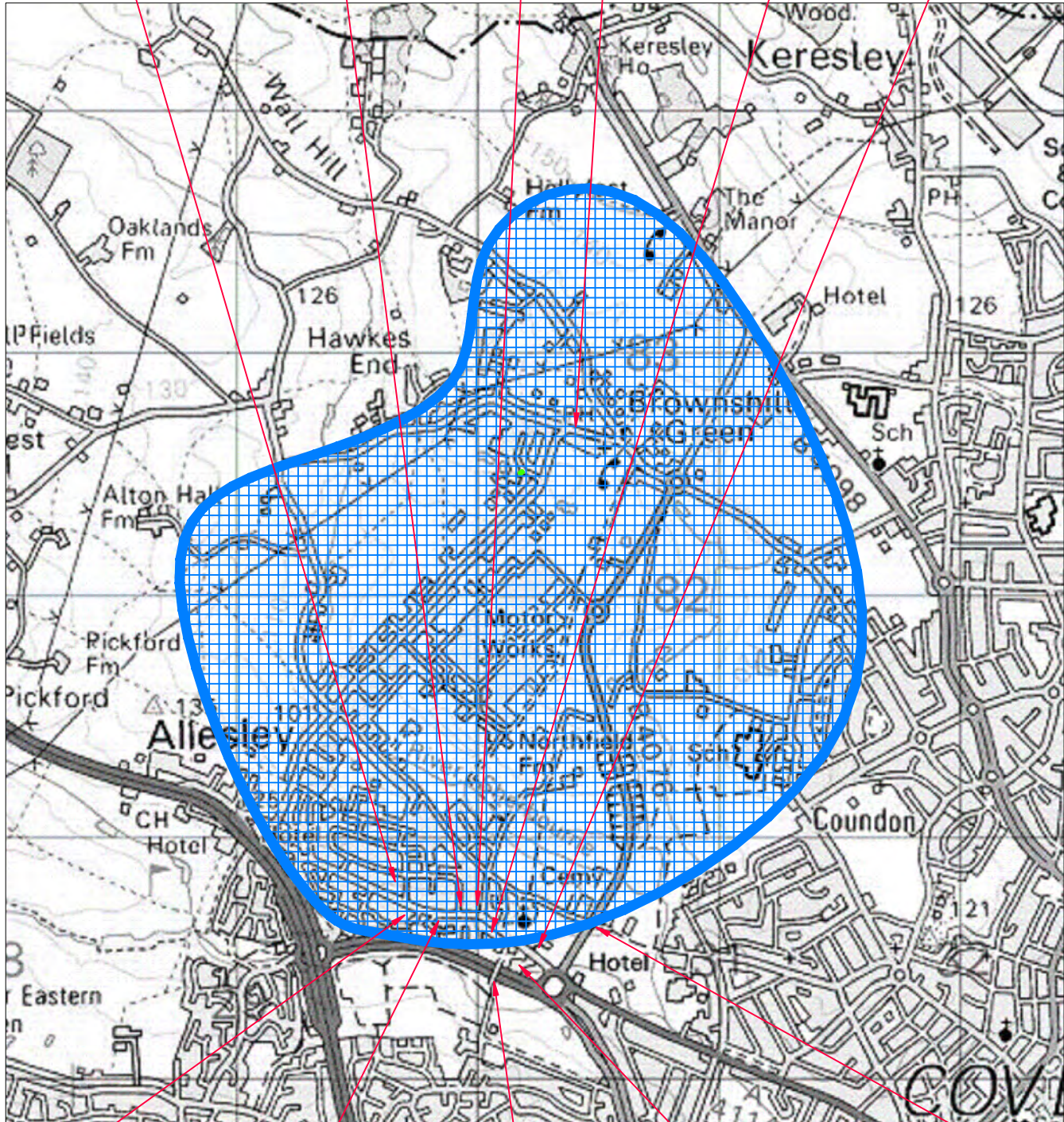
Allesley Village Hall

Allesley Hotel

The White Lion
Public House

The Rainbow Public
House

The Elms Public
House



Allesley Post
Office

Library Community
Centre

Foot/Cycle Bridge

Nature Reserve &
Walk

Public Bridleway

Browns Lane, Coventry

**Figure 3: 2km Walking
Isochrone & Local Facilities Plan**



Browns Lane, Coventry

**Figure 4:
5km Cycling Isochrone**

APPENDIX A
TRAFFIC SURVEY DATA

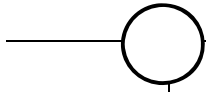
SUMMARY OF MANUAL CLASSIFIED TURNING COUNT AT THE B4076 COUNDON WEDGE DRIVE ROUNDABOUT

Date of count:- Tuesday 19th June 2007

Data supplied by:- Capita Symonds



C - B4076 Coundon Wedge Drive



B - Browns Lane Plant

A - B4076 Coundon Wedge Drive

AM Peak :-

To:

	A	B	C	
A	0	43	673	
B	16	0	8	From :
C	946	21	0	

PM Peak :-

To:

	A	B	C	
A	0	12	795	
B	49	0	55	From :
C	790	4	0	

NOTE :- All Flows in PCU

APPENDIX B

PERSONAL INJURY ACCIDENT DATA AND LOCATION PLAN

ACCIDENT ANALYSIS CHART

SITE:- Browns Lane, Coventry

PERIOD:- Most recent available 3 yr period (up to 19/03/07)

DATA OBTAINED FROM:-

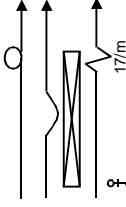
Mott MacDonald (Birmingham Office)

ACCIDENT PLOT NO	1	2	3	4	5	6	7	8	9	10
DAY	SUNDAY	WEDNESDAY	THURSDAY	WEDNESDAY	MONDAY	TUESDAY	SUNDAY	THURSDAY	WEDNESDAY	WEDNESDAY
DATE	MAY 2004	JULY 2004	OCTOBER 2004	MAY 2005	NOVEMBER 2005	JANUARY 2006	JANUARY 2006	APRIL 2006	JANUARY 2007	JANUARY 2007
TIME	16:15	07:30	18:00	13:25	09:55	03:11	02:30	16:15	08:15	10:40
LIGHT/DARK	DAYLIGHT, STREET LIGHTS PRESENT	DAYLIGHT, STREET LIGHTS PRESENT	DAYLIGHT, STREET LIGHTS PRESENT	DAYLIGHT, STREET LIGHTS PRESENT	DAYLIGHT, STREET LIGHTS PRESENT	DARKNESS, NO STREET LIGHTING	DARKNESS, STREET LIGHTS PRESENT & LIT	DAYLIGHT, STREET LIGHTS PRESENT	DAYLIGHT, STREET LIGHTS PRESENT	DAYLIGHT, STREET LIGHTS PRESENT
WET/DRY	DRY	WET	DRY	DRY	DRY	DRY	DRY	DRY	WET	DRY
SEVERITY	SLIGHT	SERIOUS	SLIGHT	SLIGHT	SLIGHT	SLIGHT	SLIGHT	SLIGHT	SLIGHT	SLIGHT
CONFLICT DIAGRAM										
COMMENTS	VEH 1 TRAVELLING OUT OF CITY, MANOEUVRED AROUND ROUNDABOUT AND COLLIDED WITH O/SIDE OF ONCOMING VEH 2. VEH 1 DRIVER PROVIDED +VE BREATH TEST.	P/C MAKING WAY AROUND R'BOUNT IN N/S LANE. VEH1 TURNED LEFT INTO COUNDON WEDGE DRIVE FROM A114 R'BOUNT ACROSS PATH OF P/C. DRIVER DID NOT STOP.	VEH2 TURNING RIGHT TOWARDS BROWNSHILL GREEN RD IS HIT FROM BEHIND BY VEH1 WHO WAS IN N/S LANE BUT WEAVED ACROSS TO ALSO TURN RIGHT.	P/C WAITING AT B'HAM RDA/A114/COUNDON WEDGE DR R'BOUNT, V1 APPROACHED JUNCTION AND COLLIDED WITH REAR OF P/C.	V2 AND V3 WERE WAITING AT THE HOLLYHEAD RD/COUNDON WEDGE DR/PICKFORD WAY R'BOUNT. V1 FAILED TO STOP AND COLLIDED INTO REAR OF V2. V2 JOLTED FORWARD INTO V3.	V1 FAILED TO NEGOTIATE THE LONG LANE/TAMWORTH RD JUNCTION DUE TO EXCESSIVE SPEED. V1 LOST CONTROL AND COLLIDED WITH TREES.	V1 LOST CONTROL AND COLLIDED WITH A LAMP POST. DRIVER ARRESTED FOR BEING DRUNK.	V1 TRAVELLING NE ON LONG LANE, CROSSED CENTRE HAZARD LINE AND COLLIDED WITH ONCOMING V2	V1 ENTERED R'BOUNT FROM B'HAM RD ARM & WAS TURNING LEFT, M/C PICKFORD WAY FROM PICKFORD WAY ENTERS CIRCULATORY AND COLLIDES WITH V1'S O/S.	V1 APPROACHING R'BOUNT FROM ALLESLEY OLD RD AND CHANGES LANE. V1 MOVES INTO N/S LANE BUT COLLIDES WITH PARKED V2.

NOTES:-

Moving Vehicle
 Waiting To Go Ahead
 Stopping Vehicle
 Vehicle Changing Lane

Vehicle Lost Control
 Overtaking
 Parked Vehicle
 Vehicle Skidding
 Pedestrian (age/sex)



Heavy Goods Vehicle
 Pedal Cycle
 Motor Cycle
 Nearside
 Offside
 HG/V
 P/C
 M/C
 N/S
 O/S

ACCIDENT ANALYSIS CHART

SITE:- Browns Lane, Coventry
PERIOD:- Most recent available 3 yr period (up to 19/03/07)

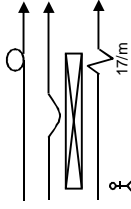
Mott MacDonald (Birmingham Office)

DATA OBTAINED FROM:-

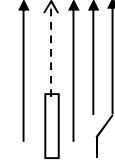
ACCIDENT PLOT NO	11	12	13	14	15	16
REFERNECE	11A	12A	1B	3B	7B	12B
DAY	SATURDAY	MONDAY	MONDAY	TUESDAY	WEDNESDAY	SATURDAY
DATE	JANUARY 2007	MARCH 2007	MAY 2004	JUNE 2004	JUNE 2005	MAY 2006
TIME	13:30	10:56	18:25	11:48	21:40	20:15
LIGHT/DARK	DAYLIGHT, NO STREET LIGHTING	DAYLIGHT, STREET LIGHT PRESENT	DAYLIGHT, STREET LIGHT PRESENT	DAYLIGHT, STREET LIGHT PRESENT	DARKNESS, STREET LIGHTS PRESENT BUT NOT LIT	DARKNESS, STREET LIGHTS PRESENT
WET/DRY	DRY	DRY	WET	DRY	WET	DRY
SEVERITY	SLIGHT	SLIGHT	SLIGHT	SLIGHT	SLIGHT	SLIGHT
CONFLICT DIAGRAM						
COMMENTS	V1 TURNED RIGHT FROM LONG LANE INTO TAMWORTH RD. ACROSS PATH OF ONCOMING V2. V2 COLLIDED WITH V1'S O/S MID-JUNCTION.	V1 TRAVELLING SOUTH ON COUNDRON WEDGE DRIVE AND FAILS TO SEE PEDESTRIAN. COLLISION OCCURS.	V1 TRAVELLING SOUTH ON COUNDRON WEDGE DRIVE LOST CONTROL WHEN NEGOTIATING RIGHT HAND BEND. V1 CROSSED CENTRE LINE AND COLLIDED WITH ONCOMING V2.	PEDESTRIAN (ELDERLY LADY) WAITING AT BUS STOP AND FELL INTO PLATFORM WHEN BOARDING THE BUS AND REQUIRED MEDICAL ATTENTION.	V2 TRAVELLING S/B ALONG COUNDRON WEDGE DR. V1 ALSO TRAVELLING S/B COLLIDED WITH REAR OF V1.	V1 TRAVELLING E/B ALONG TAMWORTH RD AND COLLIDED WITH P/C WHEN PERFORMING OVERTAKING MANOEUVRE.

NOTES:-

- Heavy Goods Vehicle
- Pedal Cycle
- Motor Cycle
- Nearside
- Offside
- HGV
- P/C
- M/C
- N/S
- O/S



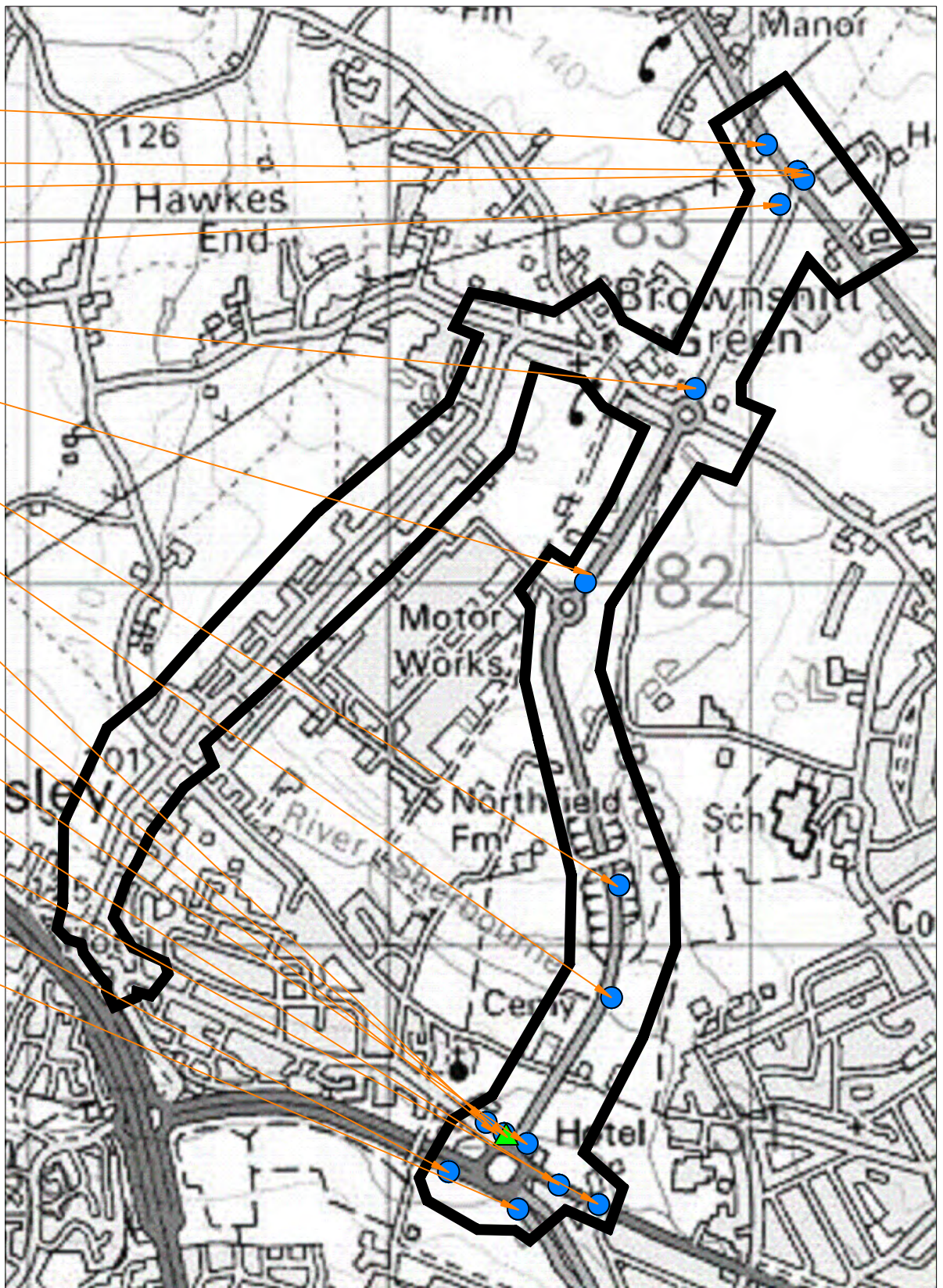
- Vehicle Lost Control
- Overtaking
- Parked Vehicle
- Vehicle Skidding
- Pedestrian (age/sex)



- Moving Vehicle
- Waiting To Go Ahead
- Stopping Vehicle
- Vehicle Changing Lane

**Accident
References**

- 16
- 6
- 11
- 8
- 3
- 1
- 13
- 15
- 4
- 2
- 9
- 12
- 5
- 14
- 10
- 7



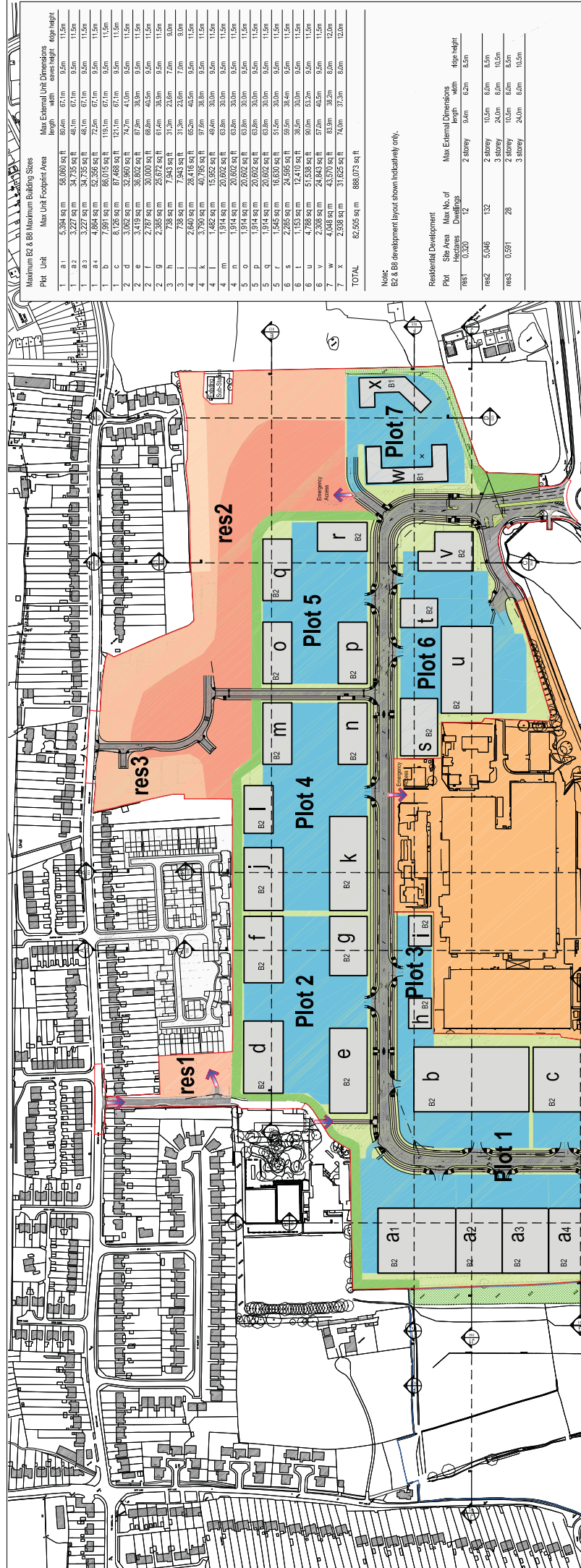
Key

- Slight ●
- Serious ▲
- Fatal ■
- Study Area —

Browns Lane, Coventry

**Personal Injury Accident (PIA) Plan
(20/03/2004 to 19/03/2007)**

APPENDIX C
MASTERPLAN



Maximum B2 & B3 Maximum Building Sizes		Max External Unit Dimensions	
Plot Unit	Max Unit Footprint Area	length	width
1 a	5,384 sq m	89.6m	67.1m
1 b	3,227 sq m	54.75m	45.1m
1 c	3,227 sq m	54.75m	45.1m
1 d	4,908 sq m	62.35m	72.2m
1 e	7,948 sq m	67.03m	67.1m
1 f	3,658 sq m	52.11m	51.5m
2 g	3,419 sq m	38.802m	87.5m
2 h	2,787 sq m	30.000m	68.8m
2 i	2,368 sq m	25.872m	61.4m
3 j	7.58 sq m	7.843m	31.3m
3 k	2,640 sq m	28.418m	65.2m
4 l	4,462 sq m	15.892m	97.6m
4 m	13,914 sq m	40.795m	97.6m
4 n	1,974 sq m	20.602m	63.2m
5 o	1,974 sq m	20.602m	63.2m
5 p	1,974 sq m	20.602m	63.2m
5 q	1,548 sq m	16.803m	51.5m
5 r	2,298 sq m	24.966m	59.5m
6 s	1,158 sq m	12.410m	38.5m
6 t	4,788 sq m	51.638m	90.0m
6 u	2,308 sq m	24.843m	57.0m
7 v	4,048 sq m	43.570m	83.8m
7 w	2,358 sq m	31.625m	74.0m
7 x	2,358 sq m	31.625m	74.0m
TOTAL	82,598 sq m	888,073 sq ft	

Residential Development		Max External Dimensions	
Plot	Site Area	length	width
res1	0.320	12	9.4m
res2	5.046	132	2 storey
res3	0.591	26	2 storey

Note:
B2 & B3 development layout shown indicatively only.

Residential Development		Max External Dimensions	
Plot	Site Area	length	width
res1	0.320	12	9.4m
res2	5.046	132	2 storey
res3	0.591	26	2 storey

B1, B2, B3 C1 POTENTIAL LIMITS	
FOOTPRINT AREAS	TOTAL
82,598 sq m	888,073 sq ft

RESIDENTIAL DEVELOPMENT	
Plot	Site Area
res1	0.32 hectares
res2	5.046 hectares
res3	0.591 hectares
TOTAL	5.967 hectares

NEW STRATEGIC LANDSCAPING	
BUFFER ZONES (ON SITE)	TOTAL
1.64 hectares	4.0 hectares

EXISTING LANDSCAPING	
BUFFER ZONE	TOTAL
0.87 hectares	1.06 hectares

SITE USAGE AND APPROXIMATE AREAS	
NEW STRATEGIC LANDSCAPING	4.0 hectares
EXISTING LANDSCAPING	1.06 hectares
NEW SOFT LANDSCAPE AREAS	18.8 hectares
JAGUAR VIC (EXISTING BASE OPERATIONS)	18.8 hectares
ACCESS ROAD TO COMMERCIAL DEVELOPMENT AREAS	7.23 hectares
B1, B2, B3 COMMERCIAL DEVELOPMENT AREAS	46.54 hectares

RESIDENTIAL SIGHT STORY	
RESIDENTIAL 1 Story	3.07 hectares
RESIDENTIAL 2 Story	74.3 hectares
RESIDENTIAL 2 & 3 Story	46.54 hectares

APPROXIMATE SITE AREA	
APPROXIMATE SITE AREA	30.07 hectares
ADJACENT LAND OWNERSHIP BOUNDARY	74.3 hectares

Goodman
 pHP architects
 RE DEVELOPMENT
 GOODMAN
 BROWN'S LANE, COVENTRY
 INDICATIVE SITE MASTER PLAN
 3726/ 014
 1:5000
 13/06/2018
 3726/ 014
 13/06/2018

APPENDIX D
TRAFFIC GENERATION

RE-DEVELOPMENT OF FORMER JAGUAR FACTORY, BROWNS LANE

TRAFFIC GENERATION

PREVIOUS FACTORY USE

The land use trip rates to be applied are as follows:

Land Use	Trip rates *			
	AM		PM	
	In	Out	In	Out
B2	0.480	0.112	0.073	0.291

* - trip rates per 100sq.m GFA

It is estimated that the previous factory use floor areas are as follows:

Area	Land use	Development size	
		GFA (m2)	
Main Buildings	B2	132,500	(Operations to continue within this area)
Maintained Buildings	B2	25,000	
Out Buildings	B2	4,400	
Heritage & Social		3,000	

On the basis of the above it is considered that the previous (now defunct) use involved:

136,900 sq.m GFA of B2 Land Use

Development size GFA (m2)	Trip rates				Vehicular trips per hour			
	AM		PM		AM		PM	
	In	Out	In	Out	In	Out	In	Out
136900	0.480	0.112	0.073	0.291	657	153	99	398

HGV Traffic Generation

It is assumed that the employment land uses will be subject to the following HGV percentages:

B2 10%

The resulting HGV traffic flows are as follows:

HGV trips			
AM		PM	
In	Out	In	Out
66	15	10	40

Summary of former B2 land use traffic generation

Vehicle Trip Type	Trips per Hour			
	AM		PM	
	In	Out	In	Out
Car/LGV trips per Hour	591	138	90	359
HGV trips	66	15	10	40
Total VPH	657	153	99	398
Passenger Car Units (PCU) *	755	176	114	458

* - PCU - where 1 car = 1 PCU and 1 HGV = 2.5 PCU's, including car transporters

LAND USES TO BE MAINTAINED ON SITE

Jaguar has ceased all car production at the Browns Lane site and closed the factory, however, it is proposed that some of the existing on site buildings will be maintained for use by Jaguar.

Surveyed Traffic Flows

At the time of the June 2007 traffic surveys all on site production had ceased, therefore, it is considered that any traffic flows entering/exiting the site at the time of survey will be associated with the maintained uses on site.

The surveyed movements are as follows:

	Vehicle Trips			
	AM		PM	
	In	Out	In	Out
Car/LGV	58	18	14	98
HGV	3	3	1	3

The traffic generation for the maintained uses on site is summarised as follows:-

"Maintained Uses" Traffic Generation Summary

Vehicle Trip Type	Trips per Hour			
	AM		PM	
	In	Out	In	Out
Car/LGV trips per Hour	58	18	14	98
HGV trips	3	3	1	3
Total VPH	61	21	15	101
Passenger Car Units (PCU) *	64	24	16	104

* - PCU - where 1 car = 1 PCU and 1 HGV = 2 PCU

TOTAL TRAFFIC GENERATION OF FORMER JAGUAR CARS LTD BROWNS LANE SITE

Further to the above, the following table presents a summary of the total traffic generation of the Browns Lane site including the former B2 employment and maintained land uses:-

Vehicle Trip Type	Trips per Hour			
	AM		PM	
	In	Out	In	Out
Car/LGV trips per Hour	649	156	104	457
HGV trips	69	18	11	43
Total VPH	718	174	114	499
Passenger Car Units (PCU) *	819	200	130	562

* - PCU - where 1 car = 1 PCU and 1 HGV = 2 PCU

RE-DEVELOPMENT OF FORMER JAGUAR FACTORY, BROWNS LANE

TRAFFIC GENERATION

PROPOSED DEVELOPMENT

The land use trip rates to be applied are as follows:

Land Use	Trip rates *			
	AM		PM	
	In	Out	In	Out
B1	2.21	0.42	0.24	1.37
B2	0.48	0.11	0.07	0.29
B8	0.18	0.11	0.21	0.19
Resi	0.29	0.58	0.56	0.33

* - Employment trip rates per 100sq.m GFA, Residential trip rates per Household

Unit	Land use	Development size GFA (m2)	Trip rates				Vehicular trips per hour			
			AM		PM		AM		PM	
			In	Out	In	Out	In	Out	In	Out
A	B2	16,712	0.480	0.112	0.073	0.291	80	19	12	49
B	B2/B8	7,991	0.480	0.112	0.073	0.291	38	9	6	23
C	B2/B8	8,126	0.480	0.112	0.073	0.291	39	9	6	24
D to V	B2	42,690	0.480	0.112	0.073	0.291	205	48	31	124
W	B1	4,048	2.210	0.420	0.240	1.370	89	17	10	55
X	B1	2,938	2.210	0.420	0.240	1.370	65	12	7	40
	Resi **	172	0.289	0.575	0.565	0.331	50	99	97	57
Total Employment		82,505					567	213	169	372

** - Residential development size in No. of Households

HGV Traffic Generation

It is assumed that the employment land uses will be subject to the following HGV percentages:

B2 10%
B2/B8 30%

The resulting HGV traffic flows are as follows:

Unit	Land use	HGV trips			
		AM		PM	
		In	Out	In	Out
A	B2	8	2	1	5
B	B2/B8	12	3	2	7
C	B2/B8	12	3	2	7
D to V	B2	20	5	3	12
Total		52	12	8	31

Summary of proposed development traffic generation

Vehicle Trip Type	Trips per Hour			
	AM		PM	
	In	Out	In	Out
Employee Trips	465	102	64	284
HGV trips	52	12	8	31
Residential	50	99	97	57
Total VPH	567	213	169	372
Passenger Car Units (PCU) ***	618	225	177	404

*** PCU - where 1 car = 1 PCU and 1 HGV = 2 PCU, excluding car transporters

TOTAL TRAFFIC GENERATION OF PROPOSED BROWNS LANE SITE

Further to the above, the following table presents a summary of the total site traffic generation of the Browns Lane site including the proposed employment and residential developments as well as the traffic generated by the existing land uses maintained by Jaguar Cars Ltd:-

Vehicle Trip Type	Trips per Hour			
	AM		PM	
	In	Out	In	Out
Employee Trips	523	120	78	382
HGV trips	55	15	9	34
Residential	50	99	97	57
Total VPH	628	234	184	473
Passenger Car Units (PCU) ***	682	249	193	508

*** PCU - where 1 car = 1 PCU and 1 HGV = 2 PCU

RE-DEVELOPMENT OF FORMER JAGUAR FACTORY, BROWNS LANE

NET TRAFFIC GENERATION

OVERALL SITE TRAFFIC GENERATION - FORMER JAGUAR FACTORY

The total traffic generation for the former Jaguar factory (including on site buildings to be maintained) is summarised below:-

Vehicle Trip Type	Trips per Hour					
	AM			PM		
	In	Out	2-way	In	Out	2-way
Car/LGV trips per Hour	649	156	805	104	457	560
HGV trips	69	18	87	11	43	54
Total VPH	718	174	892	114	499	614
Passenger Car Units (PCU) *	819	200	1019	130	562	693

* - PCU - where 1 car = 1 PCU and 1 HGV = 2 PCU

OVERALL SITE TRAFFIC GENERATION - PROPOSED DEVELOPMENT

The total traffic generation for the proposed development (including on site buildings to be maintained) is summarised below:-

Vehicle Trip Type	Trips per Hour					
	AM			PM		
	In	Out	2-way	In	Out	2-way
Employee Trips (Car/LGVs)	523	120	643	78	382	460
HGV trips	55	15	70	9	34	43
Residential	50	99	149	97	57	154
Total VPH	628	234	861	184	473	657
Passenger Car Units (PCU) *	682	249	931	193	508	700

* PCU - where 1 car = 1 PCU and 1 HGV = 2 PCU

NET OVERALL SITE TRAFFIC GENERATION

Further to the above, the following table presents a comparison between the overall site traffic generation of the former Jaguar factory site and the proposed development.

Vehicle Trip Type	Trips per Hour					
	AM			PM		
	In	Out	2-way	In	Out	2-way
Employee Trips	-126	-36	-162	-26	-74	-100
HGV trips	-14	-3	-17	-2	-8	-11
Residential	50	99	149	97	57	154
Total VPH	-90	60	-30	69	-26	43
Passenger Car Units (PCU) *	-137	49	-88	62	-54	8

* PCU - where 1 car = 1 PCU and 1 HGV = 2 PCU

APPENDIX E

TRICS METHODOLOGY

TRICS Database Interrogation Methodology

1. In order to estimate the potential traffic generation of the existing and proposed land uses during the AM and PM Peaks the TRICS database has been interrogated in order to establish the peak hourly trips typically generated by the proposed land uses.
2. In order to obtain this information the TRICS database has been interrogated for sites that have similar characteristics to the established site use using the following methodology.
3. Under the TRICS selection criteria the following choices were made;

B2 Land Uses

- Employment uses were specified
- Industrial Units was specified
- Vehicle trip rates were specified
- Data from regions except Greater London and Republic of Ireland were included
- Data categorised by GFA was specified
- The default date range (01/01/00 – 09/10/07) was applied
- The GFA range (1068 to 43325m²) was applied
- Tuesday – Thursday data was included for the weekday selections.
- Manual traffic counts and ATCs were included
- Edge of Town locations were specified
- Data from two sites in Dorset was excluded due to unusual values
- Only one survey day per site was included (see **Note**)

B8 Land Uses

- Employment uses were specified
- Commercial Warehousing was specified
- Vehicle trip rates were specified
- Data from regions except Greater London and Republic of Ireland were included
- Data categorised by GFA was specified
- The default date range (01/01/99 – 22/06/07) was applied
- The GFA range (6604 to 55740m²) was applied
- Mon – Fri data was included for the weekday selections.
- Manual traffic counts and ATCs were included
- Edge of Town and Suburban locations were specified
- Only one survey day per site was included (see **Note**)

Residential

- Residential uses were specified
 - Housing (privately owned) was specified
 - Vehicle trip rates were specified
 - Data from regions except Greater London were included
 - Data categorised by no. of dwellings was specified
 - The default date range (01/01/99 – 24/05/07) was applied
 - The housing range (5 - 120) was applied
 - Mon – Fri data was included for the weekday selections.
 - Manual traffic counts and ATCs were included
 - Edge of Town and Suburban locations were specified
 - Only one survey day per site was included (see **Note**)
4. The resultant trip rate data was entered into an Excel spreadsheet and trip rates were then calculated using the 'average' and '85th percentile' formula contained within Excel. The results of this analysis are shown on the attached summary.

Note:-

Including several surveys from a single site could bias the resultant trip rate calculations. Therefore, data has only been included from a single day for each site. Where possible, data from Wednesday, Tuesday or Thursday, which are typically 'neutral' days, have been specified.

SUMMARY OF TRICS (2008a) TRIP RATE ANALYSIS FOR INDUSTRIAL UNITS

Rank	Site Ref	Description	Weekday - 08:00 - 09:00 (Trip rate per 100sq.m GFA)				Trip Rate		
			Area	Size	Day	Date	Arrivals	Departures	Total
1	HI-02-C-01	DAIRY, NAIRN	HIGHLAND	3000	Wednesday	24/05/2006	0.700	0.167	0.867
2 **	ER-02-C-02	DYEWORKS, NEWTON MEARNS	EAST RENFREWSHIRE	11972	Wednesday	08/05/2002	0.484	0.042	0.526
3	CH-02-C-01	BAKERY, NORTHWICH	CHESHIRE	15000	Thursday	21/06/2007	0.400	0.113	0.513
4	CW-02-C-02	LIGHTING COMPANY, BODMIN	CORNWALL	17675	Wednesday	06/06/2007	0.272	0.085	0.357
5	NF-02-C-01	INDUSTRIAL UNIT, NORWICH	NORFOLK	32000	Thursday	16/11/2000	0.259	0.053	0.312
6	DS-02-C-01	BAKERY, NEAR SHEFFIELD	DERBYSHIRE	23500	Thursday	22/06/2006	0.149	0.055	0.204
7 **	ER-02-C-01	PET FOODS, BARRHEAD	EAST RENFREWSHIRE	22926	Thursday	11/10/2001	0.148	0.035	0.183
8	MT-02-C-01	CONFECTIONERY, DOWLAI	MERTHYR TYDFIL	15450	Tuesday	09/10/2007	0.110	0.026	0.136
Average Trip Rate							0.315	0.072	0.387
85th Percentile Trip Rate							0.480	0.112	0.525

Rank	Site Ref	Description	Weekday - 17:00 - 18:00 (Trip rate per 100sq.m GFA)				Trip Rate		
			Area	Size	Day	Date	Arrivals	Departures	Total
1	HI-02-C-01	DAIRY, NAIRN	HIGHLAND	3000	Wednesday	24/05/2006	0.000	0.533	0.533
2 **	ER-02-C-01	PET FOODS, BARRHEAD	EAST RENFREWSHIRE	22926	Thursday	11/10/2001	0.179	0.170	0.349
3	CW-02-C-02	LIGHTING COMPANY, BODMIN	CORNWALL	17675	Wednesday	06/06/2007	0.074	0.272	0.346
4	ER-02-C-02	DYEWORKS, NEWTON MEARNS	EAST RENFREWSHIRE	11972	Wednesday	08/05/2002	0.025	0.292	0.317
5	CH-02-C-01	BAKERY, NORTHWICH	CHESHIRE	15000	Thursday	21/06/2007	0.047	0.260	0.307
6	DS-02-C-01	BAKERY, NEAR SHEFFIELD	DERBYSHIRE	23500	Thursday	22/06/2006	0.030	0.179	0.209
7 **	NF-02-C-01	INDUSTRIAL UNIT, NORWICH	NORFOLK	32000	Thursday	16/11/2000	0.016	0.141	0.157
8	MT-02-C-01	CONFECTIONERY, DOWLAI	MERTHYR TYDFIL	15450	Tuesday	09/10/2007	0.026	0.078	0.104
Average Trip Rate							0.050	0.241	0.290
85th Percentile Trip Rate							0.073	0.291	0.349

SUMMARY OF TRICS (2008a) TRIP RATE ANALYSIS FOR COMMERCIAL WAREHOUSING

Weekday - 08:00 - 09:00 (Trip rate per 100sq.m GFA)									
Rank	Site Ref	Description	Area	Size	Day	Date	Arrivals	Departures	Total
1	WO-02-F-01	SUPERSTORE DIST., WORCESTER	WORCESTERSHIRE	31416	Thursday	14/03/2002	0.181	0.118	0.299
2 **	TV-02-F-01	SUPERSTORE DIST., STOCKTON	TEES VALLEY	30187	Thursday	04/10/2001	0.189	0.103	0.292
3	HF-02-F-02	SUPERSTORE DIST., WELWYN GC	HERTFORDSHIRE	18600	Friday	06/09/2002	0.177	0.038	0.215
4	BU-02-F-01	SUPERSTORE DISTRIB.,M.KEYNES	BUCKINGHAMSHIRE	52125	Thursday	07/02/2002	0.104	0.084	0.188
5 **	AN-02-F-01	SUPERSTORE DISTRIB., BELFAST	ANTRIM	15700	Thursday	06/03/2003	0.127	0.045	0.172
6	HF-02-F-01	SUPERSTORE DISTRIB., BUNTFRD	HERTFORDSHIRE	47584	Wednesday	06/12/2000	0.099	0.053	0.152
Average Trip Rate							0.146	0.074	0.220
85th Percentile Trip Rate							0.183	0.107	0.294

Weekday - 17:00 - 18:00 (Trip rate per 100sq.m GFA)									
Rank	Site Ref	Description	Area	Size	Day	Date	Arrivals	Departures	Total
1	TV-02-F-01	SUPERSTORE DIST., STOCKTON	TEES VALLEY	30187	Thursday	04/10/2001	0.219	0.268	0.487
2 **	WO-02-F-01	SUPERSTORE DIST., WORCESTER	WORCESTERSHIRE	31416	Thursday	14/03/2002	0.213	0.127	0.340
3	HF-02-F-02	SUPERSTORE DIST., WELWYN GC	HERTFORDSHIRE	18600	Friday	06/09/2002	0.097	0.167	0.264
4	HF-02-F-01	SUPERSTORE DISTRIB., BUNTFRD	HERTFORDSHIRE	47584	Wednesday	06/12/2000	0.086	0.105	0.191
5 **	AN-02-F-01	SUPERSTORE DISTRIB., BELFAST	ANTRIM	15700	Thursday	06/03/2003	0.070	0.121	0.191
6	BU-02-F-01	SUPERSTORE DISTRIB.,M.KEYNES	BUCKINGHAMSHIRE	52125	Thursday	07/02/2002	0.056	0.104	0.160
Average Trip Rate							0.124	0.149	0.272
85th Percentile Trip Rate							0.215	0.192	0.377

SUMMARY OF TRICS (2008a) TRIP RATE ANALYSIS FOR PRIVATELY OWNED HOUSES:

Weekday - 08:00 - 09:00 (Trip rate per Household)							Trip Rate		
Rank	Site Ref	Description	Area	Size	Day	Date	Arrivals	Departures	Total
1	TY-03-A-01	DETACHED/SEMI DET., OMAGH	TYRONE	44	Friday	03/10/2003	0.432	0.886	1.318
2	WO-03-A-01	DETACHED, BROMSGROVE	WORCESTERSHIRE	10	Thursday	23/06/2005	0.500	0.600	1.100
3	BD-03-A-02	SEMI DETACHED, LUTON	BEDFORDSHIRE	82	Tuesday	06/07/2004	0.317	0.537	0.854
4	FI-03-A-02	SEMI DETACHED, GLENROTHES	FIFE	58	Monday	16/05/2005	0.276	0.569	0.845
5	SR-03-A-01	DETACHED, STIRLING	STIRLING	115	Monday	23/04/2007	0.165	0.678	0.843
6 **	AN-03-A-03	SEMI DETACHED, LISBURN	ANTRIM	86	Thursday	14/11/2002	0.163	0.674	0.837
7	DO-03-A-02	BUNGALOWS, NR BALLYNAHINCH	DOWN	104	Friday	03/10/2003	0.173	0.587	0.760
8	TW-03-A-01	SEMI DETACHED, SUNDERLAND	TYNE & WEAR	81	Wednesday	18/09/2002	0.235	0.506	0.741
9	SF-03-A-03	MIXED HOUSES, BURY ST EDMDS	SUFFOLK	101	Monday	15/05/2006	0.109	0.554	0.663
10	DE-03-A-02	DETACHED, COLERAINE	DERRY	112	Monday	11/11/2002	0.313	0.348	0.660
11	CW-03-A-01	TERRACED, PENZANCE	CORNWALL	13	Thursday	30/06/2005	0.385	0.231	0.616
12	WS-03-A-03	SEMI D./TERRACED, NR CH/CHSTR	WEST SUSSEX	90	Friday	24/11/2000	0.111	0.500	0.611
13	WM-03-A-01	TERRACED, COVENTRY	WEST MIDLANDS	79	Friday	03/02/2006	0.152	0.418	0.570
14	HI-03-A-11	BUNGALOWS, INVERNESS	HIGHLAND	85	Monday	05/06/2006	0.129	0.424	0.553
15	GA-03-A-03	SEMI DET./TERRACED, GALWAY	GALWAY	24	Wednesday	20/09/2006	0.167	0.375	0.542
16	SC-03-A-03	DETACHED, EAST MOLESEY	SURREY	54	Tuesday	12/11/2002	0.148	0.389	0.537
17	CR-03-A-01	BUNGALOWS, CORK	CORK	48	Thursday	08/12/2005	0.208	0.313	0.520
18	SF-03-A-01	SEMI DETACHED, IPSWICH	SUFFOLK	77	Wednesday	23/05/2007	0.104	0.416	0.520
19	LC-03-A-22	BUNGALOWS, BLACKPOOL	LANCASHIRE	98	Tuesday	18/10/2005	0.173	0.337	0.510
20	CB-03-A-02	SEMI DETACHED, WORKINGTON	CUMBRIA	40	Monday	20/06/2005	0.075	0.425	0.500
21	AS-03-A-01	DETACHED/SEMI D., PORTLETHEN	ABERDEENSHIRE	104	Friday	11/02/2000	0.077	0.385	0.462
22	LE-03-A-01	DETACHED, MELTON MOWBRAY	LEICESTERSHIRE	11	Tuesday	03/05/2005	0.091	0.364	0.455
23	WR-03-A-01	SEMI DETACHED, WREXHAM	WREXHAM	82	Monday	05/07/2004	0.085	0.366	0.451
24	FI-03-A-01	BUNGALOWS, BALMULLO	FIFE	118	Thursday	24/06/1999	0.076	0.373	0.449
25	WO-03-A-02	SEMI DETACHED, REDDITCH	WORCESTERSHIRE	48	Tuesday	02/05/2006	0.104	0.333	0.437
26	DE-03-A-01	SEMI D./DETACHED, MAGHERAFLT	DERRY	106	Monday	11/11/2002	0.189	0.245	0.434
27 **	HF-03-A-01	MIXED HOUSES, WELWYN GC	HERTFORDSHIRE	53	Friday	06/09/2002	0.113	0.302	0.415
28	WL-03-A-01	SEMI D./TERRACED W. BASSETT	WILTSHIRE	99	Monday	02/10/2006	0.071	0.333	0.404
29	GS-03-A-01	SEMI D./TERRACED, GLOUCESTER	GLOUCESTERSHIRE	73	Tuesday	25/05/2004	0.123	0.260	0.383
30	GC-03-A-05	MIXED HOUSES, GLASGOW	GLASGOW CITY	56	Friday	30/07/1999	0.107	0.268	0.375
31	WM-03-A-02	DETACHED/SEMI D., STRBRIDGE	WEST MIDLANDS	12	Wednesday	26/04/2006	0.083	0.250	0.333
32	DS-03-A-01	SEMI D./TERRACED, DRONFIELD	DERBYSHIRE	20	Thursday	22/06/2006	0.200	0.100	0.300
Average Trip Rate							0.177	0.417	0.594
85th Percentile Trip Rate							0.289	0.575	0.839

Weekday - 17:00 - 18:00 (Trip rate per Household)							Trip Rate		
Rank	Site Ref	Description	Area	Size	Day	Date	Arrivals	Departures	Total
1	WO-03-A-01	DETACHED, BROMSGROVE	WORCESTERSHIRE	10	Thursday	23/06/2005	0.500	0.600	1.100
2	CR-03-A-01	BUNGALOWS, CORK	CORK	48	Thursday	08/12/2005	0.563	0.521	1.083
3	TY-03-A-01	DETACHED/SEMI DET., OMAGH	TYRONE	44	Friday	03/10/2003	0.568	0.364	0.932
4	CB-03-A-02	SEMI DETACHED, WORKINGTON	CUMBRIA	40	Monday	20/06/2005	0.525	0.400	0.925
5	AN-03-A-03	SEMI DETACHED, LISBURN	ANTRIM	86	Thursday	14/11/2002	0.628	0.291	0.919
6 **	SR-03-A-01	DETACHED, STIRLING	STIRLING	115	Monday	23/04/2007	0.583	0.304	0.887
7	AS-03-A-01	DETACHED/SEMI D., PORTLETHEN	ABERDEENSHIRE	104	Friday	11/02/2000	0.596	0.269	0.865
8	DO-03-A-02	BUNGALOWS, NR BALLYNAHINCH	DOWN	104	Friday	03/10/2003	0.615	0.173	0.788
9	TW-03-A-01	SEMI DETACHED, SUNDERLAND	TYNE & WEAR	81	Wednesday	18/09/2002	0.519	0.259	0.778
10	SF-03-A-03	MIXED HOUSES, BURY ST EDMDS	SUFFOLK	101	Monday	15/05/2006	0.525	0.228	0.753
11	DE-03-A-02	SEMI D./DETACHED, MAGHERAFLT	DERRY	106	Monday	11/11/2002	0.472	0.274	0.746
12	GA-03-A-03	SEMI DET./TERRACED, GALWAY	GALWAY	24	Wednesday	20/09/2006	0.542	0.167	0.709
13	FI-03-A-02	SEMI DETACHED, GLENROTHES	FIFE	58	Monday	16/05/2005	0.483	0.224	0.707
14	WO-03-A-02	SEMI DETACHED, REDDITCH	WORCESTERSHIRE	48	Tuesday	02/05/2006	0.458	0.229	0.687
15	DE-03-A-02	DETACHED, COLERAINE	DERRY	112	Monday	11/11/2002	0.304	0.330	0.634
16	GC-03-A-05	MIXED HOUSES, GLASGOW	GLASGOW CITY	56	Friday	30/07/1999	0.339	0.232	0.571
17	GS-03-A-01	SEMI D./TERRACED, GLOUCESTER	GLOUCESTERSHIRE	73	Tuesday	25/05/2004	0.411	0.137	0.548
18	WM-03-A-01	TERRACED, COVENTRY	WEST MIDLANDS	79	Friday	03/02/2006	0.342	0.203	0.545
19	WS-03-A-03	SEMI D./TERRACED, NR CH/CHSTR	WEST SUSSEX	90	Friday	24/11/2000	0.422	0.122	0.544
20	LC-03-A-22	BUNGALOWS, BLACKPOOL	LANCASHIRE	98	Tuesday	18/10/2005	0.347	0.173	0.520
21	HI-03-A-11	BUNGALOWS, INVERNESS	HIGHLAND	85	Monday	05/06/2006	0.376	0.141	0.517
22	WL-03-A-01	SEMI D./TERRACED W. BASSETT	WILTSHIRE	99	Monday	02/10/2006	0.374	0.141	0.515
23	BD-03-A-02	SEMI DETACHED, LUTON	BEDFORDSHIRE	82	Tuesday	06/07/2004	0.232	0.268	0.500
24	CW-03-A-01	TERRACED, PENZANCE	CORNWALL	13	Thursday	30/06/2005	0.308	0.154	0.462
25	LE-03-A-01	DETACHED, MELTON MOWBRAY	LEICESTERSHIRE	11	Tuesday	03/05/2005	0.273	0.182	0.455
26	FI-03-A-01	BUNGALOWS, BALMULLO	FIFE	118	Thursday	24/06/1999	0.322	0.127	0.449
27 **	SC-03-A-03	DETACHED, EAST MOLESEY	SURREY	54	Tuesday	12/11/2002	0.296	0.130	0.426
28	SF-03-A-01	SEMI DETACHED, IPSWICH	SUFFOLK	77	Wednesday	23/05/2007	0.247	0.169	0.416
29	WM-03-A-02	DETACHED/SEMI D., STRBRIDGE	WEST MIDLANDS	12	Wednesday	26/04/2006	0.083	0.333	0.416
30	HF-03-A-01	MIXED HOUSES, WELWYN GC	HERTFORDSHIRE	53	Friday	06/09/2002	0.264	0.151	0.415
31	WR-03-A-01	SEMI DETACHED, WREXHAM	WREXHAM	82	Monday	05/07/2004	0.305	0.098	0.403
32	DS-03-A-01	SEMI D./TERRACED, DRONFIELD	DERBYSHIRE	20	Thursday	22/06/2006	0.100	0.150	0.250
Average Trip Rate							0.404	0.236	0.640
85th Percentile Trip Rate							0.565	0.331	0.898

TRICS Database Interrogation Methodology

1. In order to estimate the likely traffic generation of the proposed development site during the AM and PM peaks the TRICS database (Version 2004b) has been interrogated in order to establish the peak hourly trips typically generated by each development use-class.
2. In order to obtain this information the TRICS database has been interrogated for sites that have similar characteristics to the proposed development using the following methodology.
3. Under the TRICS selection criteria the following choices were made;

Industrial Units

- Employment uses were specified
- Industrial unit developments were specified
- Vehicle trip rates were specified
- Data from all regions except Greater London was selected.
- Data from all areas was included
- Data categorised by gross floor area (GFA) area was specified
- The default date range (01/01/96 – 18/05/02) was applied
- The default GFA range of 1,626m² to 32,000m² was specified
- Mon – Fri data was included
- Manual traffic counts and ATCs were included
- Under “optional parameters” no other selections were made
- Only data from one day from each site was included (see note)

Business Parks

- Employment uses were specified
 - Business Park developments were specified
 - Vehicle trip rates were specified
 - Data from all regions except Greater London was selected.
 - Data from all areas was included
 - Data categorised by gross floor area (GFA) area was specified
 - The default date range (01/01/96 – 21/10/03) was applied
 - The default GFA range of 2,120m² to 118,448m² was specified
 - Mon – Fri data was included
 - Manual traffic counts and ATCs were included
 - Under “optional parameters” no other selections were made
 - Only data from one day from each site was included (see note)
4. The trip rate data was entered into an Excel spreadsheet and the 85th percentile trip rates were then calculated using the percentile formula contained within Excel.
 5. The results of this analysis are shown on the attached summary.

Note:-

Including several surveys from a single site could bias the resultant trip rate calculations. Therefore, data has only been included from a single day for each site. Where possible, data from a Wednesday, which is a typically neutral day, has been specified.

SUMMARY OF TRICS (2004b) TRIP RATE ANALYSIS FOR - BUSINESS PARKS

Weekday AM Arrivals - 08:00 - 09:00						
Rank	Site Ref	Description	Area	Day	Date	Trip Rate
1	LC-02-B-02	NAVIGATION BUSINESS VILLAGE	LANCASHIRE	Thursday	14/03/1996	2.520
2	OX-02-B-01	BUSINESS PARK, OXFORD	OXFORDSHIRE	Tuesday	21/10/2003	2.100
3	CA-02-B-01	CAMBRIDGE SCIENCE PARK	CAMBRIDGESHIRE	Monday	27/11/2000	1.190
4	AD-02-B-01	CAMPUS 2, ABERDEEN	ABERDEEN CITY	Monday	15/12/1997	1.180
5	ST-02-B-03	BUSINESS PARK, STAFFORD	STAFFORDSHIRE	Thursday	06/07/2000	1.030
6	IR-02-B-01	BUSINESS PARK, DUBLIN	REPUBLIC OF IRELAND	Thursday	10/07/2003	0.420
Average Trip Rate						1.407
85th Percentile Trip Rate						2.205

Weekday AM Departures - 08:00 - 09:00						
Rank	Site Ref	Description	Area	Day	Date	Trip Rate
1	AD-02-B-01	CAMPUS 2, ABERDEEN	ABERDEEN CITY	Monday	15/12/1997	0.430
2	LC-02-B-02	NAVIGATION BUSINESS VILLAGE	LANCASHIRE	Thursday	14/03/1996	0.410
3	OX-02-B-01	BUSINESS PARK, OXFORD	OXFORDSHIRE	Tuesday	21/10/2003	0.210
4	ST-02-B-03	BUSINESS PARK, STAFFORD	STAFFORDSHIRE	Thursday	06/07/2000	0.200
5	CA-02-B-01	CAMBRIDGE SCIENCE PARK	CAMBRIDGESHIRE	Monday	27/11/2000	0.080
6	IR-02-B-01	BUSINESS PARK, DUBLIN	REPUBLIC OF IRELAND	Thursday	10/07/2003	0.070
Average Trip Rate						0.233
85th Percentile Trip Rate						0.415

Weekday PM Arrivals - 17:00 - 18:00						
Rank	Site Ref	Description	Area	Day	Date	Trip Rate
1	LC-02-B-02	NAVIGATION BUSINESS VILLAGE	LANCASHIRE	Thursday	14/03/1996	0.380
2	OX-02-B-01	BUSINESS PARK, OXFORD	OXFORDSHIRE	Tuesday	21/10/2003	0.190
3	ST-02-B-03	BUSINESS PARK, STAFFORD	STAFFORDSHIRE	Thursday	06/07/2000	0.170
4	CA-02-B-01	CAMBRIDGE SCIENCE PARK	CAMBRIDGESHIRE	Monday	27/11/2000	0.090
5	AD-02-B-01	CAMPUS 2, ABERDEEN	ABERDEEN CITY	Monday	15/12/1997	0.080
6	IR-02-B-01	BUSINESS PARK, DUBLIN	REPUBLIC OF IRELAND	Thursday	10/07/2003	0.070
Average Trip Rate						0.163
85th Percentile Trip Rate						0.238

Weekday PM Departures - 17:00 - 18:00						
Rank	Site Ref	Description	Area	Day	Date	Trip Rate
1	OX-02-B-01	BUSINESS PARK, OXFORD	OXFORDSHIRE	Tuesday	21/10/2003	1.490
2	LC-02-B-02	NAVIGATION BUSINESS VILLAGE	LANCASHIRE	Thursday	14/03/1996	1.330
3	CA-02-B-01	CAMBRIDGE SCIENCE PARK	CAMBRIDGESHIRE	Monday	27/11/2000	0.910
4	AD-02-B-01	CAMPUS 2, ABERDEEN	ABERDEEN CITY	Monday	15/12/1997	0.800
5	ST-02-B-03	BUSINESS PARK, STAFFORD	STAFFORDSHIRE	Thursday	06/07/2000	0.620
6	IR-02-B-01	BUSINESS PARK, DUBLIN	REPUBLIC OF IRELAND	Thursday	10/07/2003	0.410
Average Trip Rate						0.927
85th Percentile Trip Rate						1.370

RANK ORDER for Land Use 06 - HOTEL, FOOD & DRINK/A - HOTELS

Ranking Type: TOTALS Time Range: 08:00-09:00

85th/15th Percentile Survey Not Highlighted

Rank	Site Ref	Description	Area	BEDRMS	Day	Date	Arrivals	Departures	Totals	Travel Plan
1	CA-06-A-02	HOTEL, CAMBRIDGE	CAMBRIDGESHIRE	78	Thursday	13/05/2004	0.333	0.436	0.769	
2	HI-06-A-03	EXPRESS BY HOL. INN, INVERNESS	HIGHLAND	94	Thursday	25/05/2006	0.16	0.553	0.713	
3 **	TW-06-A-01	PREMIER TRAV. INN, NEWCASTLE	TYNE & WEAR	82	Tuesday	26/04/2005	0.134	0.561	0.695	
4	GM-06-A-07	TRAVELODGE, MANCHESTER	GREATER MANCHESTER	181	Tuesday	25/05/2004	0.099	0.525	0.624	
5	CN-06-A-01	HOLIDAY INN, HAMPSTEAD	CAMDEN	140	Wednesday	21/04/2004	0.121	0.257	0.378	
6	WY-06-A-01	EXPRESS BY HOL. INN, BRADFORD	WEST YORKSHIRE	120	Tuesday	17/05/2005	0.142	0.217	0.359	
7	CF-06-A-02	MACDONALD HOTELS, CARDIFF	CARDIFF	107	Tuesday	17/10/2006	0.04	0.3	0.34	
8	DV-06-A-01	PREMIER TRAVEL INN, PLYMOUTH	DEVON	100	Thursday	07/07/2005	0.028	0.308	0.336	
9 **	NH-06-A-01	HOTEL, STRATFORD	NEWHAM	108	Tuesday	30/03/2004	0.176	0.13	0.306	
10	DS-06-A-01	DAYS INN, DERBY	DERBYSHIRE	100	Wednesday	23/06/2004	0.02	0.26	0.28	
11	MR-06-A-01	EXPRESS BY HOL. INN, COL. WOOD	MERTON	83	Friday	21/10/2005	0	0.157	0.157	
						MEAN	0.114	0.337	0.451	
						85TH PERCENTILE	0.168	0.539	0.704	

RANK ORDER for Land Use 06 - HOTEL, FOOD & DRINK/A - HOTELS

Ranking Type: TOTALS Time Range: 17:00-18:00

85th/15th Percentile Survey Not Highlighted

Rank	Site Ref	Description	Area	BEDRMS	Day	Date	Arrivals	Departures	Totals	Travel Plan
1	HI-06-A-03	EXPRESS BY HOL. INN, INVERNESS	HIGHLAND	94	Thursday	25/05/2006	0.564	0.33	0.894	
2	DV-06-A-01	PREMIER TRAVEL INN, PLYMOUTH	DEVON	107	Thursday	07/07/2005	0.551	0.178	0.729	
3 **	TW-06-A-01	PREMIER TRAV. INN, NEWCASTLE	TYNE & WEAR	82	Tuesday	26/04/2005	0.39	0.171	0.561	
4	CA-06-A-02	HOTEL, CAMBRIDGE	CAMBRIDGESHIRE	78	Thursday	13/05/2004	0.295	0.244	0.539	
5	DS-06-A-01	DAYS INN, DERBY	DERBYSHIRE	100	Wednesday	23/06/2004	0.47	0.05	0.52	
6	CN-06-A-01	HOLIDAY INN, HAMPSTEAD	CAMDEN	140	Wednesday	21/04/2004	0.293	0.186	0.479	
7	GM-06-A-07	TRAVELODGE, MANCHESTER	GREATER MANCHESTER	181	Tuesday	25/05/2004	0.271	0.182	0.453	
8	NH-06-A-01	HOTEL, STRATFORD	NEWHAM	108	Tuesday	30/03/2004	0.315	0.111	0.426	
9 **	CF-06-A-02	MACDONALD HOTELS, CARDIFF	CARDIFF	100	Tuesday	17/10/2006	0.17	0.1	0.27	
10	MR-06-A-01	EXPRESS BY HOL. INN, COL. WOOD	MERTON	83	Friday	21/10/2005	0.169	0.06	0.229	
11	WY-06-A-01	EXPRESS BY HOL. INN, BRADFORD	WEST YORKSHIRE	120	Tuesday	17/05/2005	0.075	0.133	0.208	
						MEAN	0.324	0.159	0.475	
						85TH PERCENTILE	0.511	0.215	0.663	