



Proposed Residential Development
Land off Cork Lane
Glen Parva
Leicestershire

Transport Assessment

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1.0 Introduction

1.1 Background

1.1.1 This report has been prepared by JPP Consulting Limited on behalf of Manor Oak Homes to support an outline planning application for residential development comprising 166 dwellings with associated highway infrastructure and public open space. The benefit of this report is limited to our instructing Client.

1.1.2 The proposed residential development is located at land off Cork Lane, Glen Parva. Glen Parva is located to the south of Leicester and north of Blaby as shown on the location plan in Figure 1 and enclosed in Appendix A. The proposed development is bound by residential development to the north and south, agricultural land to the west and Cork Lane to the east.



Figure 1: Site Location Plan

1.2 Scope of Assessment

1.2.1 The aim of the Transport Assessment is to support an outline planning application for a residential development comprising up to 166 dwellings. The proposed development layout is shown on the drawing enclosed in Appendix B.

1.2.2 This report will consider the wider highway network implications of the new development and will also focus on the sustainable credentials of the development.

1.2.3 This report is accompanied by a Framework Residential Travel Plan, JPP reference R-RTP-R6711PP-01. The Travel Plans and Transport Assessment should be read as sister documents.

1.3 Consultation

- 1.3.1 A scoping note was produced in October 2013 and sent to Leicestershire County Council and Leicester City Council, who are the local highway authorities for the roads affected by this development. A copy of the scoping note is enclosed in Appendix F. Comments received from both authorities to the scoping note are also enclosed in Appendix F.
- 1.3.2 The Transport Assessment has been written generally in line with the submitted Scoping Note and comments received from both highways authorities.

1.4 Structure of Report

- 1.4.1 Following this introductory chapter the report is structured as follows:
- Section 2 describes the site and development proposal;
 - Section 3 reviews relevant national and local transport policies;
 - Section 4 describes the characteristics of the existing transport network surrounding the development site;
 - Section 5 assesses the accessibility of the site to education, health, employment, retail and leisure facilities;
 - Section 6 sets out the person trips and mode assignment from the proposed development;
 - Section 7 assesses the impact of the proposed development on more sustainable forms of transport;
 - Section 8 assesses the impact of the proposed development on vehicular highway network; and
 - Section 9 is the conclusions.

2.0 Site Description and Development Proposals

2.1 Site Location

2.1.1 The proposed residential development is located to the south of Leicester and north of Blaby at land off Cork Lane, Leicester as shown on the location plan below in Figure 1 and enclosed in Appendix A. The proposed development is bound by residential developments to the north and south, Cork Lane to the east and agricultural land to the west.

2.2 Development Description

2.2.1 The proposed development will comprise up to 166 residential dwellings with associated highway infrastructure and public open space. The proposed development layout is shown on the plan enclosed in Appendix B.

2.2.2 The main estate roads within the development will comprise 5.5m wide carriageway with 2 x 2m wide verges and 2 x 2m wide footway

2.3 Vehicular Access

2.3.1 The proposed residential development will be accessed via an extension of cork lane into the development site. The proposed access is shown in Appendix B.

2.4 Pedestrian and Cycle Access

2.4.1 In addition to the vehicular access the proposed residential development will provide a pedestrian link to the public footpath which runs parallel to the site's northern boundary.

2.5 Parking

2.5.1 Car and cycle parking for the development will be provided in line with guidance set out in the 6Cs Design Guide.

2.6 Planning Background

2.6.1 The proposed development site is currently agricultural land. It has previously been used as a quarry and landfill.

3.0 Policy Review

3.1 Introduction

3.1.1 The following section of the report provides an examination of current policies relating to transport at national and local level as they relate to the proposed development.

3.2 National Policy

3.2.1 Creating Growth, Cutting Carbon: Making Sustainable Local Transport Happen, The Transport White Paper was published in January 2011 by the Coalition Government. The Document outlines a vision ‘for a transport system that is an engine for economic growth, but one that is also greener and safer and improves quality of life in our communities.’ Consequently, reducing carbon emissions derived from transport together with generating economic growth and contributing to economic vitality. The Localism Agenda is another strong theme with the White Paper supporting local solutions that are tailored to specific needs and behaviour patterns to deliver effective local transport.

3.2.2 The priority for local transport, as outlined is to “encourage sustainable local travel and economic growth by making public transport and cycling and walking more attractive and effective, promoting lower carbon transport and tackling local road congestion.

3.2.3 The White Paper Chapter 4 is titled Enabling Sustainable Transport Choices. The chapter states that ‘the Government wants to encourage and enable more sustainable transport choices’. The document goes on to explain the “nudge” concept that taps into human behavioural tendencies to encourage “good” choices. Nudge interventions are described as being easy and not forbidding choice and travel planning is listed as an example of such.

3.3 National Planning Policy Framework

- 3.3.1 In March 2012, the National Policy Framework (NPPF) was published by the coalition government with its overarching principle being a *'presumption in favour of sustainable development.'* The policies contained within the NPPF applied with immediate effect and thereby replaced, amongst other PPS's and PPG's, PPG 13 'Transport'. Section 4 of the NPPF 'Promoting sustainable transport' covers the transport policy, detailed below are the policies that are of relevance.
- 3.3.2 In paragraph 29, the NPPF acknowledges that *'transport policies have an important role to play in facilitating sustainable development but also in contributing to wider sustainability and health objectives'* and goes on to say *'the transport system needs to be balanced in favour of sustainable transport modes, giving people a real choice about how they travel'*.
- 3.3.3 Paragraph 36 states that *'All developments which generates significant amounts of movement should be required to provide a Travel Plan'*.
- 3.3.4 Paragraph 38 states *'Where practical, particularly within large scale developments, key facilities such as primary schools and local shops should be located within walking distance of most properties'*.

4.0 Existing Conditions

4.1 Road Network

4.1.1 The existing local highway infrastructure is shown on the plan enclosed in Appendix C.

4.1.2 The proposed development will be accessed off Cork Lane. Cody Road has a width of 5.5m and is bound by 1.8m wide footways on both sides of the carriageway. Cork Lane provides connections to Glenville Avenue and West View Avenue which both in turn connect at their eastern end with A426 Leicester Road a primary route which provides the development connections to the centres of Leicester and Blaby. All roads are subject to a 30mph speed limit and are street lit.

4.2 Pedestrian Facilities

4.2.1 The surrounding roads are typically bound by footways on both sides of the carriageway and generally provide dropped kerbs with occasional tactile paving at the appropriate locations.

1.5.2.2 A metaled bridleway connects Cork Lane with New Bridge Road and Winchester Avenue to the south.

1.5.2.2 Walking distances and the proximity of key facilities is shown on the plan enclosed in Appendix C.

4.3 Cycle Facilities

4.3.1 There are a number of dedicated cycling facilities within the vicinity including national cycle route number 6 on Cork Lane. The existing cycling facilities within the vicinity of the site are shown in Appendix E.

1.5.3.2 Cycling distances and the proximity of key facilities is shown on the plan enclosed in Appendix C.

4.4 Public Transport

4.4.1 Bus

4.4.1.1 The nearest existing bus stops for the proposed development are located Leicester Road approximately 550m from the proposed site entrance. The location of the existing bus stops is shown on the facilities plan enclosed in Appendix C.

4.4.1.2 General bus service frequencies and routes of buses utilising the bus stops are set out in table 3.1 below. Full time table and bus route information is enclosed in Appendix D. The information provided in the tables below and the appendices was correct at the time of publication.

Summary of bus services			
Service	Route	Service Times	Day Time Frequency
84	Leicester - Blaby - Whetstone - Cosby - Broughton Astley - Lutterworth	First ≈ 0630 Last ≈ 2120	Every 10 mins
84A	Leicester - Blaby - Whetstone		
85	Leicester - Blaby - Countesthorpe - South Wigston		

Table 3.1

4.4.1.3 The combined 84/84A/85 bus routes will provide residents with a regular bus service to Leicester City Centre and Blaby and therefore offers commuters a sustainable alternative to the private car. Leicestershire County Council and Leicestershire City Council have recently completed bus lane works to the A426 between the Blaby and Leicester. These works will improve journey times for buses therefore increasing the likelihood that buses will be utilised as an alternative to the private car.

4.4.2 Rail

4.4.2.1 The nearest railway station is located approximately 3.1km (1.9miles) from the proposed development at South Wigston. The railway station is located on the Birmingham to Peterborough line and is served by occasional trains travelling between Birmingham and Leicester. The nearest full service train station is Leicester Station located approximately 6.5km (4.0 miles)

4.4.2.2 The railway stations will offer opportunities for commuters making long distance journeys to travel my more sustainable forms of transport.

4.5 Recorded Accident Data

- 4.5.1 Recorded accident data was obtained from Leicestershire County Council for the five year period from 1st September 2009 to 31st December 2013. A plan of the collision data obtained from Leicestershire County Council is enclosed in Appendix G.
- 4.5.2 There are a number of accidents within the area considered comprising 38 slight injury accidents and 3 serious accidents.
- 4.5.3 Of the recorded accidents near the proposed development there is no significant theme which would suggest there are any geometric deficiencies.
- 4.5.4 From the reported accident data there does not appear to be a significant accident problem on the surrounding highway infrastructure. We therefore do not consider that the proposed development will result in conditions detrimental to highway safety.

4.6 Summary

- 4.6.1 The proposed residential development is located to the south of Leicester and north of Blaby at land off Cork Lane, Leicester. The proposed residential development will be accessed via an extension of Cork Lane into the development site. In addition to the vehicular access the proposed residential development will provide a pedestrian link to the public footpath which runs parallel to the site's northern boundary.
- 4.6.2 The proposed development has good links to the existing walking and cycling infrastructure.
- 4.6.3 The nearest bus stops to the development are served by three regular bus services which combine to offer a 10 minute service to Blaby and Leicester. These buses will offer residents of the development the opportunity to travel to Leicester City Centre and Blaby via more sustainable forms of transport for work and leisure trips. Recent works to provide a dedicated bus lane on the A426 will result in improved journey times for passengers.
- 4.6.4 The nearest railway station is located approximately 3.1km (1.9miles) from the proposed development at South Wigston. The railway station is located on the Birmingham to Peterborough line and is served by occasional trains travelling between Birmingham and Leicester. The nearest full service train station is Leicester Station located approximately 6.5km (4.0 miles)
- 4.6.5 From the report accident data there does not appear to be a significant accident problem on the surrounding highway infrastructure. We therefore do not consider that the proposed development will result in conditions detrimental to highway safety.

5.0 Accessibility

5.1 Introduction

5.1.1 The review of the planning policy presented in section 3 of this report highlights the need for need for sustainable developments to have good accessibility to education, health facilities, employment, leisure and retail. Paragraph 38 of the National Planning Policy Framework states ‘Where practical, particularly within large scale developments, key facilities such as primary schools and local shops should be located within walking distance of most properties’.

5.1.2 This section therefore considers the accessibility from the development, by modes of sustainable transport to local facilities including education, health services, employment, leisure and retail. A plan showing the location of key local facilities local to the development site is enclosed in Appendix C.

5.1.3 Walking

5.1.3.1 With reference to the Chartered Institution of Highways and Transportation (CIHT) publication ‘Guidelines for Providing for Journeys on Foot’ (2000), it is suggested that around 80% of walk journeys and walk stages are less than 1 mile (1610m). This guidance also provides ‘suggested acceptable walking distances’ which are set out in table 5.1 below.

5.1.3.2 Indicative walking time calculations have been calculated assuming a ‘typical’ walking speed of approximately 1.4m/s or 3mph. These are shown against the suggested walking distances set out in table 5.1 below.

Walking Distance and Journey Times						
	Town Centre		Commuting / School / Sight Seeing		Elsewhere	
	Distance (m)	Time (mins)	Distance (m)	Time (mins)	Distance (m)	Time (mins)
Desirable	200	2.4	500	6	400	4.8
Acceptable	400	4.8	1000	11.9	800	9.5
Preferred Maximum	800	9.5	2000	23.8	1200	14.3

Table 5.1

5.1.3.3 A plan showing local facilities and walking distances is enclosed in Appendix C.

5.1.4 Cycling

- 5.1.4.1 Section 3.10 of the Local Transport note 01/04 states that generally a 4km cycle distance is considered acceptable.
- 5.1.4.2 Assuming a cycling speed of 12kmph the maximum accepted time for a cycling journey is 20mins.
- 5.1.4.3 A plan showing the location of key local facilities local to the development site is enclosed in Appendix E. It can be seen that all facilities within Blaby are located within a 1.6km radial distance from the proposed development's access.

5.2 Accessibility to Education

- 5.2.1 The proposed development is located within approximately 400m walking distance of the nearest existing primary school, Glen Hills, which is located on Featherby Drive. This is within the desirable walking distance for school journeys as set out in table 5.1 above.
- 5.2.2 The nearest secondary school, South Wigston High School, is located approximately 2600m from the proposed development. This school is within an acceptable cycling distance a significant proportion of which can be completed on off road cycle routes.
- 5.2.3 The proposed development is shown to be located within acceptable walking and cycling distances of schools.

5.3 Accessibility to Health

- 5.3.1 The nearest doctors' is located approximately 1700m from the proposed development in Blaby, see Appendix C. The doctors' surgery is located within the preferred maximum walking distance.
- 5.3.2 The nearest dentist and pharmacy are located approximately 800m from the development on Grange Drive. The dentist and pharmacy are located within the desirable walking distances, see Appendix C.
- 5.3.3 The proposed development is shown to be located within acceptable walking and cycling distances of health services.

5.4 Accessibility to Retail and Leisure

- 5.4.1 The proposed development site is located within walking distance of Blaby town centre. The proposed development is also within close proximity of a regular bus service which provides connections to shopping and leisure opportunities in Blaby town centre and Leicester City Centre.

- 5.4.2 The proposed development is shown to be located within acceptable walking, cycling and public transport distances of retail and leisure services.

5.5 Accessibility to Employment

- 5.5.1 The development site is located within walking distance of Blaby town centre. The proposed development is also within close proximity of a regular bus service which provides connections to employment opportunities in Blaby town centre and Leicester City Centre.

- 5.5.2 The proposed development is shown to be located within suitable walking, cycling and public transport distances of employment opportunities.

6.0 Trip Generation and Distribution

6.1 The proposed development will comprise 166 residential dwellings. Person trip generation rates have been obtained from the TRICS database version 2013(6)v6.12.2. The TRICS data is enclosed in Appendix H. Person trip rates are shown in table 6.1 below.

Proposed Person Trip Generation Rate – 85 th %ile						
Use	AM Peak (0800-0900)			PM Peak (1700-1800)		
	Arrivals	Departures	Total	Arrivals	Departures	Total
Residential per dwelling	0.438	1.1	1.538	0.812	0.399	1.211

Table 6.1

6.2 From the above vehicle trip rates the number of person trips for the proposed development can be calculated based on a development size of 166 dwellings. The predicted person trip numbers from the proposed development are set out in table 6.2 below.

Proposed Person Trips						
Use	AM Peak (0800-0900)			PM Peak (1700-1800)		
	Arrivals	Departures	Total	Arrivals	Departures	Total
Residential	73	183	255	135	66	201

Table 6.2

6.3 To predict the number of trips generated by mode of transport, travel to work data has been obtained from the 2011 Census for the Saxondale ward which the proposed development is located within. The journey to work data is shown in table 6.3 below.

Method of Travel to Work Resident Population – Saxondale Ward 2011 Census	
Mode	Percentage
Driving a Car or Van	73.6%
On Foot	8.3%
Bus, Minibus or Coach	6.5%
Passenger in a Car or Van	5.7%
Bicycle	4.0%
Train	0.8%
Motorcycle, Scooter or Moped	0.7%
Taxi	0.3%

Table 6.3

6.4 Using the above modal split information it is possible to predict the number of trips made using all forms of transport. Whilst the data does not reflect the fact that not all peak period trips are made to work it offers a good reflection of the actual circumstances. The predicted number of trips by mode from the proposed development is set out in table 6.4 below.

Proposed Trip Numbers by Mode						
Mode	AM Peak (0800-0900)			PM Peak (1700-1800)		
	Arrivals	Departures	Total	Arrivals	Departures	Total
Car Driver	54	134	188	99	49	148
On Foot	6	15	21	11	5	17
Bus	5	12	17	9	4	13
Car Passenger	4	10	15	8	4	12
Bicycle	3	7	10	5	3	8
Train	1	1	2	1	1	2
Motorcycle	1	1	2	1	0	1
Taxi	0	1	1	0	0	1

Table 6.4

6.5 Vehicle trips generated by the proposed development have been distributed on to the surrounding highway infrastructure using 2001 origin and destination census data. This census data and assignment is enclosed in Appendix I. The proposed assignment of these vehicles is shown on the highway network vehicle trip diagrams enclosed in Appendix J.

7.0 Sustainable Modes of Transport Impact

7.1 Introduction

7.1.1 This section of the Transport Assessment will assess the impact of the proposed development on the local sustainable transport infrastructure.

7.1.2 The trip generation for the sustainable modes of transport has been calculated in section 6. The sustainable trips predicted from the proposed development are summarised in table 7.1 below.

Proposed More Sustainable Trip Numbers						
Mode	AM Peak (0800-0900)			PM Peak (1700-1800)		
	Arrivals	Departures	Total	Arrivals	Departures	Total
On Foot	6	15	21	11	5	17
Train	5	12	17	9	4	13
Car Passenger	4	10	15	8	4	12
Bus	3	7	10	5	3	8
Bicycle	1	1	2	1	1	2
Motorcycle	1	1	2	1	0	1

Table 7.1

7.2 Walking

7.2.1 The proposed development is predicted to generate 17 and 13 additional pedestrian trips during the morning and evening peak hours respectively. The proposed development will connect to the existing pedestrian network via footways and bridleways on Cork Lane.

7.2.2 The new pedestrian trips equates to one journey in any direction every 3.5 to 4.6 minutes. This small number of pedestrians can be accommodated on the existing and proposed pedestrian infrastructure.

7.3 Cycling

7.3.1 The proposed development is predicted to generate approximately 2 cyclist trips in the both the morning and evening peak periods. The number of predicted cyclist trips is small and could be accommodated on the existing highway infrastructure.

7.3.2 The proposed development will incorporate cycle parking provision for each dwelling.

7.4 Public Transport

- 7.4.1 The proposed development is predicted to generate approximately 10 and 8 additional bus journeys in the morning and evening peak periods respectively. The number of predicted bus journeys is small and could be accommodated within existing services.

8.0 Vehicular Impact

8.1 Introduction

8.1 This section will assess the impact of the proposed development on the existing vehicular infrastructure.

8.2 Area of Assessment

8.2.1 The area of assessment has been agreed with Leicestershire County Council and Leicester City Council in pre-application discussions with the following junctions highlighted for further assessment:

1. Glenville Road / Leicester Road;
2. Leicester Road / Little Glen Road;
3. Leicester Road / Soar Valley Way / Glenhills Way; and
4. Leicester Road / Middleton Street.d

8.3 Background Traffic

8.3.1 Vehicle counts at the above junctions were completed on Tuesday 3rd December. The traffic count data is enclosed in Appendix K.

8.4 Committed Development Traffic

8.4.1 As discussed with Leicestershire County Council and Leicester City Council we are not aware of any significant developments within close proximity which would affect the assessment. Therefore no committed developments have been included in the assessment.

8.5 Assessment Periods

8.5.1 The impact of the development will be considered on the surrounding highway infrastructure during the morning and evening peak periods of 0800-0900 and 1700-1800.

8.5.2 In line Department of Transport document 'Guidance for Transport Assessment' future year assessments have been completed for 2018 or five years after the planning application was submitted.

8.5.3 To adjust these traffic counts to the assessment years of 2018 traffic growth factors have been utilised from NTEM dataset 6.2 and NTM dataset AF09. Growth factors have been obtained for Blaby and Leicester (main). The growth factors are set out in table 8.5 below.

Tempo Growth Factors		
	AM Peak	PM Peak
2013-2018 – Blaby	1.0369	1.0385
2013-2018 – Leicester (main)	1.0702	1.0693

Table 8.5

8.5.4 It can be seen that the growth factors for Leicester (main) are larger than for Blaby. To ensure a conservative and robust approach is taken growth factors for Leicester (main) will be applied across background traffic at all junctions.

8.6 Junction Assessments

8.6.1 The junctions listed in section 8.1 have been assessed where appropriate utilising TRL software Junctions 8 and Transyt 14. The results of the junction assessments are set out below.

8.6.2 J1: Glenville Road / Leicester Road

8.6.2.1 A junction assessment of the Glenville Road / Leicester Road simple priority junction has been completed. The results of the assessment are summarised in the table below with full input data and results enclosed in Appendix L.

Glenville Road / Leicester Road – AM Peak 0800-0900 – 2018						
	2018 Background		2018 Background + Development		Difference	
	Max RFC	Max Queue	Max RFC	Max Queue	Max RFC	Max Queue
B-C	0.11	0	0.50	1	0.39	1
B-A	0.32	0	0.63	2	0.31	2
C-AB	0.21	1	0.36	1	0.15	0

Table 8.6.2a

Glenville Road / Leicester Road – PM Peak 1700-1800 – 2018						
	2018 Background		2018 Background + Development		Difference	
	Max RFC	Max Queue	Max RFC	Max Queue	Max RFC	Max Queue
B-C	0.04	0	0.12	0	0.08	0
B-A	0.19	0	0.35	0	0.16	0
C-AB	0.10	0	0.41	2	0.31	2

Table 8.6.2b

8.6.2.2 It can be seen that the Glenville Road / Leicester Road junction operates within capacity in 2018 both without and with the proposed development during both peak periods.

8.6.3 J2: Leicester Road / Little Glen Road;

8.6.3.1 A junction assessment of the Leicester Road / Little Glen Road traffic signal controlled junction has been completed. The results of the assessment are summarised in the table below with full input data and results enclosed in Appendix M.

Leicester Road / Little Glen Road – AM Peak 0800-0900 – 2018						
	2018 Background		2018 Background + Development		Difference	
	DoS (%)	Mean Max Queue	DoS (%)	DoS (%)	Mean Max Queue	DoS (%)
A426 – Leics Road (N)						
A	83	19	85	21	2	2
Little Glen Road						
B-1	82	13	85	14	3	1
B-2	30	3	31	4	1	1
A426 – Leics Road (S)						
C-1	53	9	53	9	0	0
C-2	78	8	82	9	4	1

Table 8.6.3a

Leicester Road / Little Glen Road – AM Peak 1700-1800 – 2018						
	2018 Background		2018 Background + Development		Difference	
	DoS (%)	Mean Max Queue	DoS (%)	DoS (%)	Mean Max Queue	DoS (%)
A426 – Leics Road (N)						
A	92	21	92	21	0	0
Little Glen Road						
B-1	90	15	90	15	0	0
B-2	25	3	27	3	2	0
A426 – Leics Road (S)						
C-1	56	9	58	10	2	1
C-2	89	16	93	18	4	2

Table 8.6.3a

8.6.3.2 It can be seen that the Leicester Road / Little Glen Road junction will generally operate within capacity with Degree of Saturation (DoS) values below 90% in the morning peak period in 2018 both without and with the proposed development.

8.6.3.3 During the evening peak period the Leicester Road (North) arm of the junction is shown to be overcapacity in 2018 with a DoS value of 92% although this is unaffected by the proposed development. The remaining arms, Little Glen Road and Leicester Road (South) are within capacity with DoS values of 90% and 89% respectively. Little Glen Road remains within capacity with the proposed development, however, DoS values on Leicester Road (South) are increased by 4% resulting a maximum DoS value of 93%.

8.6.3.4 Whilst the proposed development will result in the Leicester Road (South) arm of the junction operating over capacity the predicted mean maximum queue length will only increase by 2 vehicles. Due to the small increase in queue length and limited opportunities for measures which will increase real capacity no mitigation measures are proposed.

8.6.4 J3: Leicester Road / Soar Valley Way / Glenhills Way

8.6.4.1 A junction assessment of the Leicester Road / Soar Valley Way / Glenhills Way traffic signal controlled junction has been completed. This junction was recently improved as part of the A426 Bus Corridor works with the purpose of improving journey times along the A426 for Buses. The results of the assessment are summarised in the table below with full input data and results enclosed in Appendix N.

Leicester Road / Soar Valley Way / Glenhills Way – AM Peak 0800-0900 – 2018						
	2018 Background		2018 Background + Development		Difference	
	DoS (%)	Mean Max Queue	DoS (%)	DoS (%)	Mean Max Queue	DoS (%)
A563 Glenhills Way						
A-1	73	22	76	22	3	0
A-2	64	18	66	18	2	0
A-3	113	54	116	59	3	5
A-4	5	1	5	1	0	0
A426 Lutterworth Road (S)						
B-1	127	68	129	77	2	9
B-2	47	7	48	7	1	0
B-4	45	6	45	7	0	1
A563 Soar Valley Way						
C-1	53	10	53	10	0	0
C-2	99	58	99	58	0	0
C-3	74	7	75	7	1	0
A426 Lutterworth Road (N)						
D-1	134	72	148	89	14	17
D-3	54	7	58	7	4	0

Table 8.6.4a

Leicester Road / Soar Valley Way / Glenhills Way – AM Peak 1700-1800 – 2018						
	2018 Background		2018 Background + Development		Difference	
	DoS (%)	Mean Max Queue	DoS (%)	DoS (%)	Mean Max Queue	DoS (%)
A563 Glenhills Way						
A-1	73	19	77	20	4	1
A-2	58	13	60	14	2	1
A-3	122	51	122	51	0	0
A-4	9	2	10	2	1	0
A426 Lutterworth Road (S)						
B-1	134	62	140	70	6	8
B-2	56	7	58	7	2	0
B-4	47	5	48	5	1	0
A563 Soar Valley Way						
C-1	66	16	66	16	0	0
C-2	99	74	99	74	0	0
C-3	78	12	79	13	1	1
A426 Lutterworth Road (N)						
D-1	136	96	143	111	7	15
D-3	41	6	41	6	0	0

Table 8.6.4B

- 8.6.4.2 The above assessment is based on the geometry and signal phases / stages post completion of the A426 Bus Corridor Improvements. It can be seen that one traffic stream on each arm of the junction is predicted to operate above capacity in 2018 without the proposed development. Maximum Degree of Saturation (DoS) values of 143% were recorded during the peak period without the proposed development.
- 8.6.4.3 With the proposed development RFC values are increased on all arms with the exception of the A563 Soar Valley Way. The increase in Degree of Saturation is generally minor, however, the A426 Lutterworth Road (N) arm of the junction experiences the largest increase in DoS values with the values increasing by 14%.
- 8.6.4.4 The Leicester Road / Soar Valley Way / Glenhills Way junction has recently undergone works to improve its operation and maximise capacity at the junction. These works were aimed at improving bus journey times along the A426 corridor. Whilst the proposed development is predicated to have a slight impact on the operational capacity of the junction there are limited options available to improve the operation of the junction as the highway land is fully utilised therefore preventing the creation of new arms.
- 8.6.4.5 It is therefore proposed that no mitigation works will be completed at the junction and further emphasis will be placed within the Travel Plan to promote bus travel for new residents. As the A426 Bus Corridor Improvements will improve journey times making them more reliable bus travel should be considered an attractive form of transport for Leicester bound journeys which would have otherwise route through the junction.

8.6.5 J4 - Leicester Road / Middleton Street

8.6.5.1 A junction assessment of the Leicester Road / Middleton Street traffic signal controlled junction has been completed. The results of the assessment are summarised in the table below with full input data and results enclosed in Appendix O.

Leicester Road / Middleton Street – AM Peak 0800-0900 – 2018						
	2018 Background		2018 Background + Development		Difference	
	DoS (%)	Mean Max Queue	DoS (%)	DoS (%)	Mean Max Queue	DoS (%)
A426 Lutterwoth Rd (S)						
A-1	7	1	7	1	0	0
A-2	85	19	88	21	3	2
Middleton St						
B-1	84	13	87	13	3	0
B-2	10	1	11	1	1	0
A426 Lutterwoth Rd (N)						
C-1	39	5	40	25	1	20
C-1	83	11	83	11	0	0

Table 8.6.5a

Leicester Road / Middleton Street – PM Peak 1700-1800 – 2018						
	2018 Background		2018 Background + Development		Difference	
	DoS (%)	Mean Max Queue	DoS (%)	DoS (%)	Mean Max Queue	DoS (%)
A426 Lutterwoth Rd (S)						
A-1	8	1	8	1	0	0
A-2	90	21	90	22	0	1
Middleton St						
B-1	87	13	87	13	0	0
B-2	17	2	18	2	1	0
A426 Lutterwoth Rd (N)						
C-1	49	7	51	8	2	1
C-1	87	14	90	15	3	1

Table 8.6.5b

8.6.5.2 It can be seen that the Leicester Road / Middleton Street junction will operate within capacity in, with Degree of Saturation Values at or below 90%, in both peak periods during 2018 without and with the proposed development.

9.0 Public Consultation

9.1 A public consultation event was held on 28th January 2014 to inform and discuss the proposed development with local residents. At the consultation event a number of specific concerns were raised by residents regarding the use of the local highway infrastructure to access the development. These concerns are summarised as:

- The width of Glenville Avenue and West View Avenue are inadequate to serve the proposed development;
- The junction visibility of Glenville Avenue is poor.

9.2 Glenville Avenue and West View Avenue have widths of 6.2m and 6.1m respectively. In line with Manual for Streets widths of 5.5m and above are adequate for two lorries to pass. With the exception of Glen Hills School, two care homes and four businesses neither of which are retail shops the two roads serve dwellings. Therefore the majority of vehicles utilising the roads will be cars which only require 4.1m to pass in line with Manual for Streets. This allows 2.1m and 2.0m for cars to park on Glenville Avenue and West View Avenue respectively and not prohibit the free flow of vehicles.

9.3 A topographical survey of Glenville Avenue and Leicester Road shows that the junction has adequate junction visibility meeting the minimum 2.4m x 43m visibility for 30mph roads. To the left the maximum achievable visibility is 2.4m x 66m equivalent to the visibility distance required for a 40mph road. A drawing enclosed in Appendix P shows that the visibility splays are achievable in both the horizontal and vertical planes.

10.0 Conclusions

- 10.1 The proposed residential development is located to the south of Leicester and north of Blaby at land off Cork Lane, Leicester. The proposed development is bound by residential developments to the north and south, Cork Lane to the east and agricultural land to the west.
- 10.2 The proposed development will comprise up to 166 dwellings with associated highway infrastructure and public open space.
- 10.3 The proposed development is shown to be well served and accessible to more sustainable modes of transport. The proposed development has good accessibility to education, health, employment, retail and leisure facilities.
- 10.4 The proposed development will be accessed via an extension of Cork Lane.
- 10.5 The proposed development is not predicted to have an adverse impact on the sustainable transport infrastructure.
- 10.6 Junction assessments have been completed at 4 junctions within Leicester. It is shown that the proposed development does not have a significant adverse impact on the operation of any of these junctions.
- 10.7 Framework travel plans have been produced for the development. These Travel Plans which will be secured under a S106 agreement will target a reduction in single occupancy vehicle trips.
- 10.8 From the reported accident data there does not appear to be a significant accident problem on the surrounding highway infrastructure. We therefore do not consider that the proposed development will result in conditions detrimental to highway safety.
- 10.9 There are therefore no reasons on highway grounds why planning permission for the present development should not be granted.