PROPOSED RESIDENTIAL DEVELOPMENT ON
LAND AT WILBURTON ROAD, HADDENHAM

TRANSPORT ASSESSMENT

Client: Gladman Developments Ltd

February 2014
Proposed Residential Development on Land at Wilburton Road, Haddenham

Transport Assessment

Project Title: Proposed Residential Development on land at Wilburton Road, Haddenham

Project Number: FP032

Name | Signature | Date
---|---|---
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Revision Details

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Prepared for:
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1.0 INTRODUCTION

A planning application is being submitted for a residential development on land at Wilburton Road, Haddenham. The application is outline with all matters reserved except access. This Transport Assessment has been prepared to assess the transport impact of the development proposals to demonstrate that there are no material issues which would prevent the application going forward.

The Assessment is set out as follows:

1.0 INTRODUCTION

2.0 SITE DESCRIPTION
   Describes the site and the surrounding infrastructure.

3.0 PROPOSED DEVELOPMENT
   Introduces the development proposals.

4.0 TRANSPORT POLICY
   Sets out relevant material and local transport policy.

5.0 SUSTAINABILITY
   Describes the options for travelling by the more sustainable modes of transport.

6.0 TRAFFIC IMPACT
   Analyses the various traffic impacts of the proposals including access, capacity assessment and road safety.

7.0 CONCLUSIONS

A Framework Travel Plan accompanies this application and is complementary to this Assessment.
2.0 SITE DESCRIPTION

The site is located on Wilburton Road in Haddenham. Location plans are shown overleaf. The site is currently open land and is located on the south eastern side of the village.

Wilburton Road is a single carriageway road and in the vicinity of the site is approximately 6.5 metres in width, with a footpath on the far side of the road. There is a traffic calming build out to the west of the site presumably to reinforce the 30 miles an hour speed limit along Wilburton Road as vehicles leave the main road to the west of the site. Further along the road name changes to Duck Lane as it runs through to the High Street at a priority junction with Duck Lane being the minor arm. There are a number of side roads along the length of the road.

Just to the east of the site is the A1123 New Road / Wilburton Road. This is a key route in the area linking Huntingdon and St. Ives to the west to the A10 (and onto Ely) and the A142 in the east. The junction close to the site is a simple priority junction with the Wilburton Road link past the site being the minor arm. New Road then runs up to the centre of the village where it meets the High Street at a staggered crossroads.

Haddenham itself is a village with a population of just over 3000 inhabitants. It has a good range of facilities for its size including a nursery and primary school, a range of shops including a convenience store, a village hall, post office and doctors’ surgery. More substantial facilities are available at the surrounding urban centres including Ely, St. Ives and Huntingdon.
Proposed Residential Development on Land at Wilburton Road, Haddenham
Transport Assessment

Project Number FP032

Woolstone Centre
1-2 Mill Lane
Woolstone
Milton Keynes
MK15 0AJ

Location Plan

Drawing  Location Plan
Project  Wilburton Road, Haddenham
Client  Gladman Developments

Figure No  1a

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Scale  NTS

Date  Jan 2014

3rd February 2014
3.0 PROPOSED DEVELOPMENT

The application is outline but a Framework Masterplan accompanies the application and this confirms the development as up to 100 dwellings. The main points are as follows:

i) A vehicle access point directly onto Wilburton Road. (This is discussed in detail later in the Assessment.)

ii) Appropriate landscaping.

iii) Public open space and play area.

The detail of the internal road and footpath layout, together with other transport issues such as parking, can be discussed and evolve when the reserved matters application comes forward.
4.0 TRANSPORT POLICY

4.1 National Transport Policy

Creating Growth, Cutting Carbon, Making Sustainable Transport Happen:

The Local Transport White Paper 2011

In January 2011, the Government set out its policy direction on local transport through the Local Transport White Paper. The White Paper sets the Government’s approach to shorter local journeys (i.e. trips of five miles or less) with the intention of supporting its principal wider goals of promoting economic growth and reducing carbon. There’s a lot of weight given to immediate gains from local interventions, especially when it comes to job creation.

The White Paper establishes that creating economic growth and tackling climate change by reducing CO₂ emissions are the primary objectives at the national level for transport. The White Paper argues that by offering sustainable travel options, local authorities can change people’s travel behaviour to favour sustainable modes. Decisions on which sustainable options are appropriate are best made at the local level in partnership with local residents, businesses and delivery agencies.

National Planning Policy Framework

The Government has published a National Planning Policy Framework that sets out its policies for different aspects of land use planning in England. This helps local planning authorities take a consistent approach to land use and transportation development. Development plans at the local level need to be consistent with these.

The Framework states that, where practical, encouragement should be given to transport solutions in facilitating development which support reductions in greenhouse gas emissions and reduce congestion. The planning system should therefore support a pattern of development which, where reasonable to do so, facilitates the use of sustainable modes of transport.
4.2 Local Transport Plan

Under the Transport Act of 2000 (amended by the Local Transport Plan 2008), every local transport authority in the country has to publish a Local Transport Plan (more usually known as the LTP) setting out transport strategies, policies and delivery programme for its area for the future.

Cambridgeshire's Third Local Transport Plan (LTP3) sets out Cambridgeshire's existing and future transport issues and how they will be addressed. LTP3 covers the period 2011-2026 and was adopted in March 2011.

LTP3 focuses on five main transport objectives. These together with the envisaged proposals for ensuring their achievement are listed below.

1. **Enabling people to thrive, achieve their potential and improve their quality of life.**

   - Provide a transport network that is efficient and effective
   - Provide good accessibility to services and for businesses
   - Influence planning decisions to incorporate green spaces that are pleasant for pedestrians and cyclists

2. **Supporting and protecting vulnerable people.**

   - Develop a rural strategy for Cambridgeshire
   - Support community transport schemes
   - Implement road safety initiatives to reduce road traffic accidents
   - Provide easily accessible information on transport and travel options
   - Work with partners to understand the most appropriate methods of service delivery
3. Managing and delivering the growth and development of sustainable communities.

- Discourage use of cars where alternatives exist and encourage use of sustainable means of transport such as walking, cycling and public transport
- Facilitate active travel through improvements in footpaths and cycle ways
- Implement road safety initiatives to reduce road traffic accidents
- Influence planning decisions to co-locate housing with jobs and services to reduce the need to travel
- Influence the design of new developments to promote road safety and encourage travel by foot and bicycle
- Implement travel plans and other smarter choices measures such as car clubs and car sharing

4. Promoting improved skill levels and economic prosperity across the county, helping people into jobs and encouraging enterprise.

- Develop a rural strategy for Cambridgeshire
- Implement the Market Town Transport Strategies and a Transport Strategy for Cambridge
- Improve accessibility to education and jobs
- Provide a transport network that is efficient and effective
- Influence national decisions on the strategic road and rail network to ensure Cambridgeshire is an attractive and buoyant location for business
- Implement measures to manage demand where traffic congestion hinders economic prosperity
5. **Meeting the challenges of climate change and enhancing the natural environment.**

- Consider new, and expand existing, quality bus partnerships to ensure that public transport operators use increasingly ‘clean’ fleets
- Monitor air quality and implement air quality action plans
- Develop noise action plans
- Actions to address traffic growth, particularly car use
- Future proof the maintenance programme and scheme appraisal processes against the effects of climate change
- Encourage behavioural change away from single occupancy car use
- Minimise the impacts of transport on the natural environment, heritage and landscape and seek solutions that deliver long-term environmental benefits.
5.0 SUSTAINABILITY

Clearly, it is important for any new development that residents have the opportunity to travel by the more sustainable modes of transport especially walk, cycle and public transport. These modes will be considered in turn.

5.1 Walk

Walk is usually considered an important mode for trips up to two kilometres in length and the two kilometre catchment is shown on the diagram overleaf. This shows that the whole of Haddenham is within the walking catchment and, in fact, most village facilities are well within a kilometre of the site entrance. This means that all of the village facilities are within walking distance of the site for most people, including:

i) The Primary School (Robert Arkenstall) on Camping Close.
ii) The Doctors’ Surgery on The Green.
iii) Local shops including a Spar Convenience Store, a Pharmacy, a Post Office and fast food outlets on the High Street.
iv) Two Public Houses.
v) A Village Hall.
vi) A library.
vii) Local employment.
viii) Various leisure opportunities.
ix) Preschool and day nurseries.

There is therefore a good range of facilities within walking distance of the site. In addition the established and traditional infrastructure and layout of the village as a whole with footpaths on one or both sides of most streets means that walk is a practical, as well as a theoretical, option.
5.2 Cycle

Cycle is usually considered an important mode of transport for trips up to five kilometres in length and the five kilometre catchment is also shown on the diagram. All of the facilities within Haddenham are within cycling distance of the site, as are a number of adjacent villages including Wilburton where the nearest secondary school is situated.

5.3 Public Transport

The bus services for Haddenham are summarised in the table overleaf and the full timetables enclosed in Appendix 1. The main service is the 106 which provides approximately a two hourly service between Rampton and Ely (Monday to Saturday) and in addition the X8 between Cambridge and Chatteris stops once a day (allowing travel to Cambridge in the early morning and a return journey in the early evening). There are no services on Sunday. The nearest bus stops are located on the High Street.

For more strategic travel railway services are available at Ely and Huntingdon.

Overall, therefore, the site is well located to allow travel to the more sustainable modes to a range of facilities. To maximise this potential a Travel Plan will be developed for the site and a framework document accompanies this application.
### Wilburton Road, Haddenham - Nearby Bus Routes

<table>
<thead>
<tr>
<th>Service</th>
<th>Operator</th>
<th>Description</th>
<th>Nearest Bus Stop</th>
<th>Frequency (Mon-Fri)</th>
<th>Frequency (Sat)</th>
<th>Frequency (Sun)</th>
</tr>
</thead>
<tbody>
<tr>
<td>106</td>
<td>Dews Coaches</td>
<td>Rampton - Cottenham - <strong>Haddenham</strong> - Ely</td>
<td>High Street opp Linden End</td>
<td>0803, 1038, 1252, 1434, 1735</td>
<td>As Mon - Fri</td>
<td>No service</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ely - <strong>Haddenham</strong> - Cottenham - Rampton</td>
<td>High Street nr Linden End</td>
<td>0727, 0950, 1200, 1349, 1628, 1820</td>
<td>As Mon - Fri</td>
<td>No service</td>
</tr>
<tr>
<td>X8</td>
<td>Stagecoach in Cambridgeshire</td>
<td>Cambridge - Cottenham - <strong>Haddenham</strong> - Sutton - Chatteris</td>
<td>Hop Row opp Hinton View</td>
<td>1847</td>
<td>As Mon - Fri</td>
<td>No service</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chatteris - Sutton - <strong>Haddenham</strong> - Cottenham - Cambridge</td>
<td>Hop Row nr Hinton View</td>
<td>0738</td>
<td>As Mon - Fri</td>
<td>No service</td>
</tr>
</tbody>
</table>
6.0 TRAFFIC IMPACT

6.1 Access

Access to the site is taken from Wilburton Road via a simple priority junction. A layout plan is shown in Appendix 2. The road is laid out to conform to the appropriate design standards. Visibility splays to conform with Manual for Streets are shown but in fact visibility well in excess of this is available and the A1123 junction is already visible from the site access. It is known the Highway Authority expressed some concerns over a junction in this location but the simple facts are:

i) Both the junction to the east and the build out to the west can be clearly seen by vehicles leaving the site access.

ii) Similarly the access will be in full view of drivers leaving the main road.

iii) By observation vehicle speeds past the site are not excessive as demonstrated by a speed survey in the vicinity of the site access. The results are included in Appendix 3 and are split between vehicles slowed by the traffic calming and those that are not. Even those under free flow conditions are not travelling at an excessive speed (85th percentile 33 miles per hour) whilst those that have to slow for the chicane were much slower (85th percentile 24 miles per hour).

iv) This confirms therefore the access is not located in a high speed environment.

6.2 Traffic Impact

Clearly, despite the sustainability of the site, the proposed development will generate additional traffic on the road network and the impact of this needs to be assessed. The key junctions locally, in addition to the site access, were identified as:

1) Wilburton Road / New Road
2) Hop Row / High Street / The Green / Station Road
3) High Street / Linden End / Aldreth Road
It was these junctions that formed the base of the assessment. The approach was as follows:

i) Establish base 2014 traffic flows via traffic surveys.

ii) Growth to 2019 (five years after submission) using TEMPRO factors.

iii) Calculate trip rates and traffic generation for the development using the TRICS database.

iv) Distribute/assign traffic to the network based on National Census journey to work data.

v) Add to ii) to obtain 2019 with development flows.

vi) Test junction capacity using the TRL program PICADY.

6.2.1 Base Traffic Flows

Traffic surveys were carried out on Wednesday 15\textsuperscript{th} January 2014 and the survey results are enclosed as Appendix 4. The resultant peak hour flows are shown on Figures 3 and 4 at the rear of this report.

These flows were then grown to 2019 (five years after application) using TEMPRO growth factors. The TEMPRO printout is enclosed as Appendix 5 with the factors being 1.074 (AM peak) and 1.077 (PM peak). The resultant 2019 base flows are shown on Figure 5 and 6.

6.2.2 Development Related Flows

Peak hour trip rates for the development were obtained from the TRICS database and the TRICS printout is enclosed as Appendix 5. Applying these rates to 100 units results in the following traffic generations for the site:

<table>
<thead>
<tr>
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<tr>
<td><strong>Trip Rates</strong></td>
</tr>
<tr>
<td><strong>Development Trips</strong></td>
</tr>
<tr>
<td>Arrive</td>
</tr>
<tr>
<td>AM Peak</td>
</tr>
<tr>
<td>PM Peak</td>
</tr>
</tbody>
</table>
This traffic was distributed based on the National Census Journey to Work (Car Driver) database for Haddenham ward. The Census data and resultant distributions are enclosed as Appendix 7 and the percentage distribution shown as Figure 7. Assigning the development related traffic flows in these proportions results in the development related traffic flows on Figure 8 and 9. Adding these figures to the 2019 baseflows results in the 2019 with development traffic flows shown in Figures 10 and 11.

6.2.3 Traffic Impact

The key junctions within Haddenham were analysed using the TRL program PICADY. In the analysis the key statistics are the ratio of flow to capacity (RFC) and the average maximum queue lengths. If the RFC value exactly equals 1.0 then flow equals theoretical capacity. If it is less than 1.0 then spare capacity exists.

The table overleaf shows the maximum RFC values and queue lengths and the full PICADY printouts are enclosed as Appendix 8.

From the table it can be seen that the access performs perfectly satisfactorily with very low RFC values. For the key junctions these again generally perform well with plenty of spare capacity for most movements. The only exception is the A1123 Hop Row minor arm at the staggered crossroads. In 2019 with the development in place this has a maximum RFC value in the PM peak of 0.991 with a mean maximum average queue of 13.6 vehicles. However this is still below theoretical capacity but more importantly the impact of the development is very minor with the maximum RFC and queue length statistics for 2019 without the development being 0.973 and 11.7 respectively. An increase in queue length at the peak of less than two vehicles is not considered a material impact.

Overall, therefore, it is not considered that there is a material traffic impact associated with these proposals.
Residential Development (100 Houses), Wilburton Road, Haddenham - Junction Analysis

1. Wilburton Road/New Road - PICADY Results

<table>
<thead>
<tr>
<th>Arm</th>
<th>Turn</th>
<th>2014 base</th>
<th>2019 without dev</th>
<th>2019 with dev</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Max RFC</td>
<td>Queue</td>
<td>Max RFC</td>
</tr>
<tr>
<td>Wilburton Road W (minor)</td>
<td>Left</td>
<td>0.025</td>
<td>0.0</td>
<td>0.027</td>
</tr>
<tr>
<td></td>
<td>Right</td>
<td>0.244</td>
<td>0.3</td>
<td>0.270</td>
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<td></td>
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<td></td>
<td></td>
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<td></td>
<td>0.343</td>
</tr>
<tr>
<td>A1123 New Road</td>
<td>All</td>
<td>0.008</td>
<td>0.0</td>
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<td></td>
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PM

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<td>Max RFC</td>
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<td>0.181</td>
<td>0.2</td>
<td>0.203</td>
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<td>0.036</td>
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<tr>
<td>A1123 New Road</td>
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<td>0.0</td>
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2. Hop Row/High Street/The Green/Station Road - PICADY Results

AM

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<td>Max RFC</td>
<td>Queue</td>
<td>Max RFC</td>
</tr>
<tr>
<td>The Green (minor)</td>
<td>Left</td>
<td>0.069</td>
<td>0.1</td>
<td>0.081</td>
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<td>Right</td>
<td>0.560</td>
<td>1.2</td>
<td>0.619</td>
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<td></td>
<td>0.629</td>
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<td>High Street</td>
<td>All</td>
<td>0.122</td>
<td>0.2</td>
<td>0.133</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>0.134</td>
</tr>
<tr>
<td>A1123 Hop Row (minor)</td>
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<td>0.631</td>
<td>1.7</td>
<td>0.690</td>
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<td>Max RFC</td>
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</tr>
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</tr>
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<td>0.083</td>
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<td></td>
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<td>0.083</td>
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<td>A1123 Hop Row (minor)</td>
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<td>0.886</td>
<td>6.1</td>
<td>0.973</td>
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<td>0.991</td>
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<td>Station Road</td>
<td>All</td>
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### 3. High Street/Linden End/Aldreth Road - PICADY Results

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<td>0.170</td>
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<td>Linden End (minor)</td>
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<td>0.323</td>
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### 4. Access Off Wilburton Road - PICADY Results

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<td>Max RFC</td>
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<tr>
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<tr>
<td>Wilburton Road W</td>
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<td>0.060</td>
</tr>
<tr>
<td>Wilburton Road W</td>
<td>All</td>
<td>0.004</td>
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</table>
6.3 Road Safety

Traffic accident data has been obtained for the last five available years (01/01/2008-31/12/2012) for the main surrounding network. The accident plots are enclosed as Appendix 9 and are summarised in the table in the appendix. Basically there are a total of eight accidents within Haddenham as a whole of which two were classified as serious and six as slight. Three accidents occurred at the Wilburton Road / New Road junction (one serious, two slight) and the rest were spread around the network. None of this indicates a serious road safety issue on the surrounding network and the additional traffic generated by the development is unlikely to change this.
7.0 CONCLUSIONS

Overall, therefore, the following conclusions are reached:

i) This is an outline application for a residential development. The Framework Masterplan shows a development of up to 100 units.

ii) Access to the required design standards is proposed.

iii) The site is well located to allow travel by the more sustainable modes.

iv) A Framework Travel Plan accompanies the application.

v) There are no material traffic impacts associated with the proposal.

vi) There are no road safety issues associated with the development.

Overall, therefore, it is concluded that there are no material transport issues associated with the application.
FIGURES 3-11

Traffic Flow Diagrams
Proposed Residential Development on Land at Wilburton Road, Haddenham

Transport Assessment

Project Number FP032

24

2014 AM Peak (0730-0830) Observed Turning Flows

Project Wilburton Road, Haddenham

Client Gladman Developments

Drawn HC

Checked NW

Scale NTS

Date Jan 2014

NTS

HC

NW
2014 PM Peak (1715-1815) Observed Turning Flows

Project: Wilburton Road, Haddenham

Client: Gladman Developments

Drawing: Project Number FP032

Figures:
- Figure No 4

Scale: NTS

Date: Jan 2014

Woolstone Centre
1-2 Mill Lane
Woolstone
Milton Keynes
MK15 0AJ
Proposed Residential Development on Land at Wilburton Road, Haddenham

Transport Assessment

Project Number FP032

Woolstone Centre
1-2 Mill Lane
Woolstone
Milton Keynes
MK15 0AJ

2019 AM Peak Turning Flows Without Development

Project
Wilburton Road, Haddenham

Client
Gladman Developments

Figure No
5

Drawing

2019 AM Peak Turning Flows Without Development

Project
Wilburton Road, Haddenham

Client
Gladman Developments

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Wilburton Road, Haddenham

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Drawing
Proposed Residential Development on Land at Wilburton Road, Haddenham

Transport Assessment

2019 PM Peak Turning Flows Without Development

Project
Wilburton Road, Haddenham

Client
Gladman Developments

Figure No
6

Woolstone Centre
1-2 Mill Lane
Woolstone
Milton Keynes
MK15 0AJ

Drawing
2019 PM Peak Turning Flows Without Development

Project Number FP032

3rd February 2014
Proposed Residential Development on Land at Wilburton Road, Haddenham
Transport Assessment

Project Number FP032

Woolstone Centre
1-2 Mill Lane
Woolstone
Milton Keynes
MK15 0AJ

Drawing

Percentage Development Distribution

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Client

Gladman Developments

Scale

NTS

Date

Jan 2014

Key:

50.5 - % Departure Trips
50.5 - % Arrival Trips
Proposed Residential Development on Land at Wilburton Road, Haddenham
Transport Assessment

Project Number FP032

Woolstone Centre
1-2 Mill Lane
Woolstone
Milton Keynes
MK15 0AJ

Drawing AM Development Flows

Project Wilburton Road, Haddenham

Client Gladman Developments

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3rd February 2014
Proposed Residential Development on Land at Wilburton Road, Haddenham

Transport Assessment

Project Number FP032

PM Development Flows

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Figure No: 9

| 24 trips out |
| 36 trips in |

Woolstone Centre
1-2 Mill Lane
Woolstone
Milton Keynes
MK15 0AJ

Drawn: HC
Checked: NW
Scale: NTS
Date: Jan 2014

3rd February 2014
2019 AM Peak Turning Flows With Development

Project: Wilburton Road, Haddenham
Client: Gladman Developments

Drawing: 2019 AM Peak Turning Flows With Development
Figure No: 10

Drawn: HC
Checked: NW
Scale: NTS
Date: Jan 2014