Woolfox Garden Village

Initial Transport Appraisal Review

COMHA3RCC001 / 003 / 01

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amey consulting

MHA
Midlands Highway Alliance
Driving Collaboration

Document Control Sheet

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Issue Status/Amendment	Prepared	Reviewed	Approved
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1. Introduction

1.1.1 Amey has been commissioned by Rutland County Council to review an Initial Transport Appraisal produced in August 2019 by RPS group carried out on behalf of developers of the proposed development at Woolfox in the county of Rutland. The Initial Transport Appraisal has been prepared for the proposed development of Woolfox Garden Village in Rutland, with an estimated 10,000 dwellings along with associated schools.

1.1.2 This summary report sets out the key findings of the review. The review takes each chapter of the Initial Transport Appraisal (and any supporting information within the appendices) in turn and identifies any specific sections of the report which are considered of importance or may require further information/discussion.

1.1.3 This is a desktop report and a site visit has not been undertaken in the preparation of this review.

1.1.4 The following guidance has been used in evaluating the content of the Initial Transport Appraisal; https://www.gov.uk/guidance/travel-plans-transport-assessments-and-statements (Paragraph: 015 Reference ID: 42-015-20140306).

2. Transport Assessment Review

2.1. Review Summary

Issues Ranking Table				
Accept (A)	**General Observation (GO)**	**More Information (MI)**	**Concern (C)**	**Significant Concern (SC)**
This aspect of the analysis is accepted without modification.	An issue highlighted for information but does not require an action from the applicant.	An issue where there is insufficient information to determine whether or not something is acceptable.	An issue that should be addressed further but is likely to be resolved by a simple solution.	An issue that is fundamentally unacceptable and would require work to provide a solution.

Issue		Summary Review Comment	Highway Authority Response/Action
1	**Introduction**		
GO	1.1 to 1.3	The introduction summarises the scope of work undertaken by RPS in respect of Woolfox Garden Village. It specifies that the document is an initial transport review to consider issues and opportunities available as part of the proposed site development which is estimated to include around 10,000 dwellings, schools and employment uses. • Proposes a 3-phase development: Phase 1: Up to 500 Dwellings; Phase 2: Total of 2500 Dwellings, schools and employment uses; Phase 3: Additional 7500 Dwellings.	

<table>
<tr><td></td><td></td><td>It outlines that the review will provide an initial appraisal of the transport impacts with relation to the proposed development and that a detailed Transport Assessment will be undertaken.</td><td></td></tr>
<tr><td>GO</td><td>1.4 to 1.11</td><td>Report Format
These sections set out the report structure used in the document.</td><td></td></tr>
<tr><td>2</td><td colspan="3">Site Location and Surrounding Transport Network</td></tr>
<tr><td>GO</td><td>2.1</td><td>Site Location
This section provides the details for the proposed location with respect to the adjacent villages.</td><td></td></tr>
<tr><td>GO</td><td>2.3</td><td>Figure 01 provides the site location. Site location within the figure is of a poor quality i.e. it is not possible to see any place names and there is no north indicator.</td><td></td></tr>
<tr><td>C</td><td>2.1 to 2.8</td><td>This section provides details of the travel to work modal percentages as per 2011 census for these villages. A comparison of the numbers in the report and the numbers from the census is provided below:
<table>
<tr><td>Mode</td><td>Rutland District (Report)</td><td>Rutland UA (QS701EW)</td></tr>
<tr><td>Train</td><td>1</td><td>2</td></tr>
<tr><td>Bus</td><td>1</td><td>1</td></tr>
<tr><td>Taxi</td><td>0</td><td>0</td></tr>
<tr><td>Motorcycle</td><td>1</td><td>1</td></tr>
<tr><td>Car Driver</td><td>64</td><td>69</td></tr>
</table></td><td></td></tr>
</table>

		<table><tr><td>Car Passenger</td><td>5</td><td>5</td></tr><tr><td>Cycle</td><td>5</td><td>4</td></tr><tr><td>Walk</td><td>22</td><td>18</td></tr></table> As seen in the table above there is a slight variation in the percentages assumed.	
MI	2.9 to 2.12	**Local Facilities** This section provides the location of the local facilities in the surrounding villages; however it does not provide the distance to these facilities and hence it is difficult to comment on the accessibility levels. The development proposes a lot of facilities such as schools and shopping areas within the new site. There is no comment on the development plan schemes and planned allocations in the region and how the Garden Village might relate to the future proposals and committed development schemes of RCC.	
MI	2.13 to 2.24	**Existing Road Network** As part of evaluating the local road network, the following roads were analysed: ○ A1 ○ B1081 ○ A606 ○ Clipsham Road/B668	

		○ Grantham Lane Existing traffic flows of these roads have not been provided except the traffic volume on A1 from WebTRIS. Primary surveys have been undertaken but mentioned only in Chapter 5. Some of the junctions have been mentioned along the network description. However, none of the local junctions and their existing characteristics have been evaluated based on evidence. Turning count surveys will also be needed to assess the traffic characteristics at the junctions.	
MI	2.25 to 2.34	**Footway/Cycleway routes** The current location of footpaths, byways and bridleways are mentioned. However, there is no mention of their condition and current usage and how they link to local facilities or other significant routes. The location of cycle routes has been presented, however there is no mention of their condition and current usage and how they link to local facilities. The walking distance suggestions by CIHT have been mentioned. There is no map or table to relate this to the proposed site.	
GO	2.35 to 2.46	**Public Transport** Provides the service details of bus (route 29) and train services from Oakham and Stamford. The section also provides details of the train services and facilities at Grantham and Peterborough stations.	
GO	2.47 to 2.48	**Summary**	

		Summarises the services and facilities set out in the section.	
3	**Development Proposal**		
MI	3.1 to 3.3	**Introduction** Some of the proposed project details are mentioned here. Phasing as mentioned in Chapter 1 is described again; however, the phasing years have not been specified. Later, in Chapter 5, the phasing years for traffic assessment are mentioned as 2026, 2036 and 2045. Employment uses/local facilities have not been detailed enough for a transport appraisal or review.	
GO	3.1	'up to 10,000 dwellings, employment and schools Woolfox' quoted: this should read 'up to 10,000 dwellings, employment and schools within Woolfox'.	
MI	3.4 to 3.7	**Walking/Cycling** The section proposes to make walking and cycling as key elements. The report assumes the quiet residential roads adjacent to site are suitable for creating a cycling network. However, no evidence has been provided to support this assumption. The report proposes to utilise the existing bridleway crossing the site with improvements to its surface. However, there is no mention as to what facilities could be linked to the improvements on the bridleway. Appendix B highlights the possible new cycle routes and bus only access to the	

		site, potential circular route to Stamford and Oakham and the potential service to Peterborough. There is no analysis or supporting evidence provided for these proposals.	
MI	3.8 to 3.12	**Public Transport** Two new bus services have been proposed for linking the site to local towns of Stamford/Oakham and to Peterborough station. There is no information on the expected patronage, linkage with existing bus services or any other feasibility indicator. The report proposes to use the DRT (Demand Response Transport) system proposed by RCC in Stamford for the bus services.	
GO	3.13 to 3.14	**Future Design** This section outlines the range of future technology that will be available for the residents of the village and that all infrastructure in the development will accommodate advanced technologies.	
GO	3.15 to 3.20	**Access** Two points of access are recommended for the initial phase of development (up to 500 dwellings). These are: ○ Clipsham Lane: Roundabout ○ Unnamed road towards Woolfox Depot Grade separated junction on A1 shall be provided upon occupancy of 500th dwelling.	

		The location of these access points and the design of grade separated junction at A1 is shown in Appendix C.	
GO	3.21 to 3.22	**Summary** Summarises the information in the above sections.	
4 Trip Generation and Distribution			
GO	4.1 to 4.2	**Introduction** This section introduces the process followed from trip generation to modal split and trip distribution to assess the travel demand.	
SC	4.3 to 4.5	**Trip Generation** NTS and census data was used to arrive at trip rates as TRICS does not have comparable sites. TRICS was used only to arrive at the arrival and departure profile. ○ No explanation was provided as to why there are no suitable sites available in TRICS ○ Use of NTS data is considered too inaccurate (no breakdown of different land uses) and doesn't consider trips generated from outside the development The calculation that 10,000 dwellings would accommodate 13,200 residents contradicts the previous national census data quoted average of 2.2 people per household which would result in 22,000 residents.	

<table>
<tr><td></td><td></td><td>
Proposed households: 10,000 (Phase 1: 500, Phase 2: 2000, Phase 3: 7500).
</td><td></td></tr>
<tr><td>SC</td><td>4.6</td><td>
This section uses 0.49 (AM Peak) and 0.35 (PM Peak) trip rate per person based on NTS0501. This has served the basis of household trip rates of 1.078 in AM peak and 0.77 in PM peak.

The derivation of the trip rates is not explained nor is the exact data source quoted. It has not been demonstrated that the NTS datasets are sufficiently representative or robust to be used for trip generation at this site.

<table>
<tr><td>Trips (All Modes) per person per year (NTS 0303)</td><td>975*</td></tr>
<tr><td>Trips (All Modes) per person per year – East Midlands (NTS 9903)</td><td>1031*</td></tr>
<tr><td>Trips (All Modes) per person per day</td><td>3</td></tr>
<tr><td>Trips (All Modes) per person per average hour</td><td>0.12</td></tr>
<tr><td>AM Peak Weekday Index (NTS 0501) (Average hour: 100)</td><td>287*</td></tr>
<tr><td>PM Peak Weekday Index (NTS 0501) (Average hour: 100)</td><td>205*</td></tr>
<tr><td>Trips (All Modes) per person – AM Peak</td><td>0.34</td></tr>
<tr><td>Trips (All Modes) per person – PM Peak</td><td>0.24</td></tr>
</table>
Amey have extracted the following information from NTS:

*NTS, 2017
</td><td></td></tr>
</table>

<table>
<tr>
<td>SC</td>
<td>4.7</td>
<td>Trip generation
<table>
<tr><td></td><td colspan="3">Phase 1+2</td><td colspan="3">Phase 1+2+3</td></tr>
<tr><td></td><td>Arrival</td><td>Departure</td><td>Total</td><td>Arrival</td><td>Departure</td><td>Total</td></tr>
<tr><td>AM Peak</td><td>490</td><td>2205</td><td>2695</td><td>1960</td><td>8820</td><td>10780</td></tr>
<tr><td>PM Peak</td><td>1243</td><td>682</td><td>1925</td><td>4970</td><td>2730</td><td>7700</td></tr>
</table>
The use of TRICS data here contradicts para 4.3 which states no comparable sites are available. The TRICS data has not been included with the report. The apparent two-way AM peak trip rate quoted is the same as the NTS trip rate quoted in para 4.6. The calculation of trip rates in unclear.

Trip generation for the employment uses has not been considered.</td>
<td></td>
</tr>
<tr>
<td>GO</td>
<td>4.8</td>
<td>‘National Travel Statistics’ are quoted’ this should read ‘National Travel Survey’</td>
<td></td>
</tr>
<tr>
<td>SC</td>
<td>4.8 to 4.11</td>
<td>Identification of external trips
<table>
<tr><td>Trip Purpose</td><td>AM Peak</td><td>PM Peak</td></tr>
<tr><td>Work</td><td>38%</td><td>57%</td></tr>
<tr><td>Education</td><td>51%</td><td>5%</td></tr>
<tr><td>Shopping</td><td>11%</td><td>38%</td></tr>
</table>
Purpose wise distribution of peak hour trips from NTS0502 (Table 4.3) is fine.

Education and shopping trips assumed to be all be internal. Considering all shopping trips to be internal can have the potential to underestimate the trip numbers.

Based on this, it is assumed that 55% of trips will be external (work related)</td>
<td></td>
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<table>
<tr>
<td></td>
<td></td>
<td>and 45% to be internal in Phase 2. By Phase 3, the external trip percentage is expected to be reduced to 45% with 55% being internal.

No justification or evidence was provided as to how the 45%/ 55% of trips would be internal to the site. This does not seem realistic and would need to be demonstrated to be achievable. This report does point out that a TA will be more detailed in terms of localised movement of trips.</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>4.12 to 4.16</td>
<td>Modal Split

External trips were distributed based on the following percentages.
<table>
<tr><th>Mode</th><th>Phase 2 (55% External Trips)
% Trips</th><th>Phase 3 (45% External Trips)
% Trips</th><th>Census - 2011
% Trips</th></tr>
<tr><td>Bus</td><td>8</td><td>7</td><td>2</td></tr>
<tr><td>Motorcycle</td><td>1</td><td>1</td><td>1</td></tr>
<tr><td>Car Driver</td><td>77</td><td>79</td><td>86</td></tr>
<tr><td>Car Passenger</td><td>7</td><td>9</td><td>6</td></tr>
<tr><td>Cycle</td><td>7</td><td>4</td><td>5</td></tr>
</table>
In order to calculate the modal split, the ‘train’ and ‘walking’ modes have been removed from external trips as there are no stations or employment uses within walking distance. Cycle trips percentages have also been reduced.

• This is in contradiction to the proposals of footways and cycleways being proposed.
• The cycle percentage is more than the census percentage.</td>
<td></td>
</tr>
</table>

		• Travel to work data from census at the county level was used. Slight discrepancy in data as mentioned in section 2.1 to 2.7. • The car driver percentage has been decreased by 7% and buses have been increased by the same. There is no clear explanation on how this has been done. • The modal percentages for Phase 2 and Phase 3 are assumed to be different without any supporting evidence for any of them. The proportion of cycle trips are assumed to be reducing for Phase 3. • No commentary on the impact of sustainable transport proposals/mitigation measures on the future modal split.	
MI	4.17 to 4.20	**Distribution** Distribution was calculated for car driver trips. The external trip percentages for the different phases has been assumed as follows: Phase 1: All trips are external Phase 2: 55% external trips Phase 3: 45% external trips (Table 5.8 in section 4.17 should be read as Table 4.8) The distribution pattern was generated manually based on 2011 census. It is difficult to regenerate the same pattern in absence of data in a tabular form. Separate distribution pattern for incoming and outgoing trips has not been	

		attempted. 65% of external trips (55% of the total trips) will be using the A1 while 35% will be using local routes. Clear evidence on how these numbers were generated has not been provided.	
GO	4.21 to 4.23	**Summary** Summarises the above process.	
5	**Traffic Impact**		
MI	5.1 to 5.5	**Introduction** Identifies 2026, 2036 (based on the local plan) and 2045 as the planning years although it has mentioned that the final development is likely to extend beyond 2045. Base traffic (2019) has been provided for 9 roads (A1, B668, Greetham Road, Clipsham Rd, Grantham Rd, Main Street, A606, B1081 and Ryhall Rd). There is no mention of the day and duration of these surveys. TEMPRO growth rates (10% from 2019 to 2026, 17% from 2019 to 2036 and 25% from 2019 to 2045) have been applied on the base traffic to arrive at the future traffic. The TEMPRO growth rates appear robust. More information is needed on the design phases, as the second and third phase in 2036 and 2045 relate to a longer horizon. This section does not identify the impact of sustainable transport modes.	
GO	5.5	Spell check: 'withi' to read 'within'.	

GO	5.6	Reference made to 'trips and distribution identified in Section 5'. However, trip generation and distributions are section 4.	
MI	5.6 to 5.12	**Predicted Traffic Impact** Predicts potential traffic based on 100% external traffic in Phase 1 and 55% external traffic thereafter. However, section 4.18 mentions 45% external traffic in Phase 3. Identifies potential development related traffic on the adjacent network using certain proportions for each route. These proportions have changed from Phase 2 to Phase 3. This process seems to be just an assumption without any evidence to support the numbers. The report recognises that the impact of development traffic is likely to extend beyond the network area. Eight junctions have been assessed which are assumed to be immediately affected by the proposals. Junctions were modelled using the JUNCTIONS 9 modelling software. The associated traffic flow diagrams and modelling outputs from the software have not been provided.	
MI	5.13 to 5.14*(Incorrect numbering)	Junctions were assessed for base traffic, no development scenarios for 2026, 2036 and 2045 and development traffic for 2026, 2036, 2045. These assessments were done for both AM and PM peak. The junction assessment is given below: 1. Hooby Lane/ B668/ Greetham Road/ A1 on Slip	

		This junction will continue to operate well within its design capacity in the future with minimal queues and delays expected. 2. B668/ Clipsham Road/ A1 on & off slips The names of the roads in the junction description do not match the junction title. This junction will continue to operate well within its design capacity in the future with minimal queues and delays expected. 3. B668/ Greetham Road/ A1 off slip This junction is assessed to have traffic more than its design capacity in 2045 AM Peak. The report proposes to use the land available around the junction to mitigate this. This would be reviewed in the detailed TA. 4. Grantham Lane/ un-named Road/ private access This junction is assessed to have traffic more than its design capacity in 2045 PM Peak on Grantham Lane and high traffic on the unnamed road in the AM peak in 2045. The report proposes to use the land available around the junction to mitigate this. This would be reviewed in the detailed TA. 5. Grantham Lane/ A1 on & off slips This junction is assessed to have traffic more than its design capacity in 2045 PM Peak. The report proposes to use the land available around the junction to mitigate this. This would be reviewed in the detailed TA. 6. Main Street/ A606 (Whitwell Road)/ Nook Lane	

		This junction is assessed to have traffic more than its design capacity in 2045 AM and PM Peak. The report proposes to use the land available around the junction and possible signalisation to mitigate this. This would be reviewed in the detailed TA. 7. B1081 Old Great North Road / A1 Off Slip This junction is assessed to have traffic more than its design capacity in 2045 AM Peak. The report proposes to use the land available around the junction to mitigate this. This would be reviewed in the detailed TA. 8. Old Great North Road/ Water Lane/ Ryhall Road/ Pickworth Rd This junction is assessed to have traffic more than its design capacity in 2036 AM and PM Peak. The report proposes to use the land available around the junction and possible roundabout or signalisation arrangement to mitigate this. This would be reviewed in the detailed TA. The report does not mention a turning count survey for the base traffic. In absence of the survey, it is difficult to assess the credibility of this analysis. The proposed junctions (Eastern roundabout and Western roundabout) on A1 to access the site were also evaluated. The assessment showed that these roundabouts will operate well within capacity during all scenarios. The A1 slip roads were reviewed in respect of TD 22 'Layout of Grade Separated Junctions' – Table 2/3 AP 'All Purpose Road Merging Diagram'. The latest highway standard on this is CD 122 (August 2019) – Geometric Design	

		of Grade Separated Junctions (formerly TD 22/06, TD 39/94, TD 40/94).	
GO	5.13 to 5.14 - 5.1 to 5.21	Paragraph numbering is inconsistent. Doesn't continue and begins again in this chapter.	
GO	5.22 to 5.23	**Accident Review** Accident data is presented in ranges in Table 5.17 (the basis for identifying these ranges is not clear). A1 (North) and Clipsham Road were identified as two locations which will need further investigation.	
MI	5.24 to 5.25	**Impact Mitigation** Identifies the need for a detailed TA. Provides potential measures to mitigate the impacts of the proposed development on the highway network. Some of the proposed measures include: ○ Promote use of non-car modes through the provision of a site-based Travel Plan ○ Bus service to Stamford town centre, Oakham railway station and Peterborough railway station. ○ Grade separated junction on A1 to access the site ○ New roundabout access on Clipsham road ○ Traffic calming measures with Stetton and Greetham	

		None of the above proposals are based on any substantial supporting evidence.	
MI	5.26 to 5.28	**Summary** Summarises the findings from the above section The document is a transport review and not a detailed assessment and hence does not cover the following points: ○ The transport appraisal mentions the intent of encouraging sustainable transport methods, but no evidence is provided on where and how it will be provided; ○ Parking provision; ○ Environmental impact of projected traffic, any adjacent AQMA (Air Quality Management Area)	

6	**Transport Policy**		
GO	6.1	This chapter evaluates the development proposals against the national and local policies. Placing the transport policy here does not follow logical order in that it does not form part of the baseline. This makes the report more difficult to follow. Would expect this to appear after Chapter 2.	
MI	6.2 to 6.8	**National Policy** Identifies the paragraphs in the national policy (NPPF, 2019) related to transport assessments/plans. This section does not evaluate the development proposals based on the above policies.	
MI	6.9 to 6.15	**Local Planning Policy** Identifies the policies in the local policy 'Rutland Local Development Framework, Core Strategy, 2011; Rutland County Council, Local Transport Plan 3, Transport Strategy 2011 to 2026; RCC, Local Transport Plan 4 2018 to 2036, Draft; RCC, Strategic Parking Review – 3, 2012) related to transport assessments/plans. This section does not evaluate the development proposals based on the above policies. The parking standards are mentioned but the report does not assess the parking provision based on proposed travel demand. There is no commentary on any committed highway schemes in the region	

		which might have an impact on the adjacent highway network.	
GO	6.17 to 6.19	**Summary** Summarises the policies at the national and local level.	
7	**St George's Barracks Review**		
GO	7.1 to 7.19	Review of an adjacent project proposal in the transport appraisal is not a standard process. Notwithstanding the above, some of the points which can be identified in the chapter are: ○ Distance of strategic roads from the St. Georges site; ○ Current lack of options for other modes accessible from the site; ○ No information on local facilities like schools as part of the proposal; It should be noted that some of the comments about the size of the development and impact on local highway network are likely to be applicable to both the St George's and Woolfox site e.g. junction over capacity, mitigation measures, HGV traffic.	
8	**Summary & Conclusion**		
MI	8.1 to 8.14	This chapter summarises the findings based on the transport review and provides an overall conclusion that the site at Woolfox 'demonstrated that safe and suitable means of access can be provided to the proposed Woolfox Garden Village and initial impact assessment work demonstrated that the impact of the development can be suitably mitigated ensuring the	

		development does not result in a severe impact. Potential offsite improvements will benefit new residents of the site and additionally existing residents within the local area. It is also considered that the site will conform to the relevant planning policy guidelines in terms of new development sites. The Rutland Local Plan review has a strategic objective of identifying locations for sustainable development for future allocation of houses. This would replace the existing DPD policy which requires that about 70% housing should be in Oakham and Uppingham. As part of identifying potential additional sites, large sustainable settlements were also considered as an alternative option. Although the Woolfox site is proposed to conform to this objective, no evidence has been provided in this document in terms of the sustainable features of the proposed development and how the location would be an ideal one for a new sustainable settlement. The transport and travel proposals also cannot be completely assessed without more information and a detailed Transport Assessment.	

3. Summary

3.1.1 This is an initial Transport Appraisal and not a detailed Transport Assessment and hence the review is limited to the identification of the exact issues.

3.1.2 The Initial Transport Appraisal is intended to provide information to be considered for the purpose of allocation in the Local Plan. It is acknowledged that additional information and more detailed assessment would be provided in a Transport Assessment for planning application purposes.

3.1.3 There are however, significant concerns around some of the information provided concerning the impact of the site, specifically around the likely level of generated trips. Without this additional information, the site cannot currently be classed as suitable for Local Plan allocation in terms of sustainability or whether any traffic impact can be mitigated.