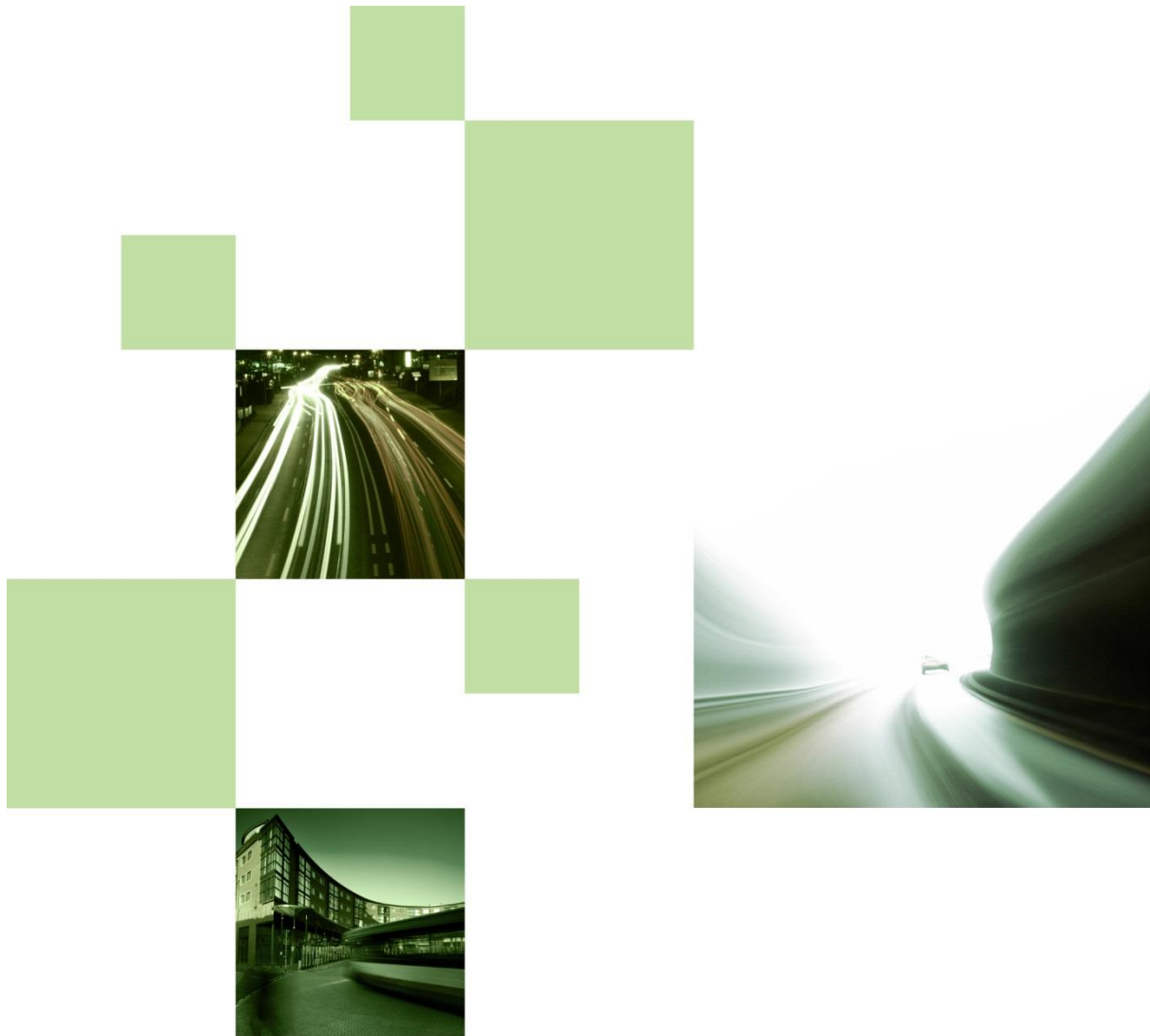


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Proposed Residential Development, Former William Freeman Works, Mapplewell

Transport Assessment Addendum

August 2018

PROPOSED RESIDENTIAL DEVELOPMENT
FORMER WILLIAM FREEMAN WORKS
MAPPLEWELL
BARNSELY

NETHERTON BUILDING AND CONSTRUCTION LTD

TRANSPORT ASSESSMENT ADDENDUM

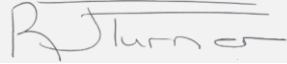
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1.0 INTRODUCTION

- 1.1 This Transport Assessment Addendum has been written in response to comments on the Transport Assessment (Report No. 14-114-001.04) submitted as part of the outline planning application (Ref 2017/1718) for a proposed residential development on the site of the Former William Freeman Works site in Mapplewell. The proposed residential development will include up to 106 dwellings.
- 1.2 The review of the Transport Assessment has been undertaken by AECOM on behalf of Barnsley Metropolitan Borough Council (BMBC) and has provided comments on a number of points within the Transport Assessment. A copy of the Transport Assessment Review is attached at **Appendix BGH1**.
- 1.3 The following issues were identified within the TA and will be addressed within this Transport Assessment Addendum:
- An additional committed development was requested to be included in the assessment, not previously identified by AECOM (Ref 2017/0520).
 - Obtain Saturday peak trip rates from the TRICS database in order to assess the impact of the residential development within the sensitivity testing of the LIDL store for the Saturday peak hour.
 - Provide a plan detailing the proposed improvements at the Lee Lane/Shaw Lane junction to be implemented as part of the Lee Lane residential scheme.
 - Undertake modelling of the 2023 Base, 2023 Predicted and 2023 Predicted with Lidl scenarios in order to account for additional committed development, Saturday trip rate for residential scheme and changes to the Saturday trip generation for the Lidl scheme.
- 1.4 This Addendum should be read in line with Transport Assessment submitted as part of the planning application.

2.0 TRANSPORT ASSESSMENT UPDATE

Committed Development

- 2.1 An additional committed development was requested to be included in the assessment, not previously identified by AECOM (Ref 2017/0520). This development is for the erection of 193 dwellings on land to the West of Wakefield Road.
- 2.2 A search has been undertaken on BMBC planning portal for the relevant Transport Assessment for the development listed above. The Transport Assessment was not listed within the above application and through contacting BMBC. It is understood that the Transport Assessment being considered for this development is one submitted as part of an outline application for the same site in 2014 (Ref 2014/0249). This Transport Assessment was prepared for a residential development of up to 300 dwellings and is therefore considered robust.
- 2.3 The committed developments included within the original TA and the associated traffic flows were reviewed and it is confirmed that the flows associated with the above “additional” committed development have already been included within the Transport Assessment, but the text at Paragraph 3.33 in the original TA was not updated. The committed development included instead of this one (2016/0337) in fact considered the flows associated with the TA submitted for reference 2014/0249. It is therefore concluded that the committed developments do not need updating as the 2023 Base scenario in the original TA did consider the trip generation associated with the Application Ref 2017/0520.

Saturday Peak Trip Rates

- 2.4 It was requested that a Saturday Peak Trip Rate is used for the residential development from the TRICS database.
- 2.5 Within the original TA, the predicted residential development traffic for the Saturday peak was based on the predicted development traffic for the morning peak hour as there are limited sites within the TRICS for a residential trip generation for a Saturday. The Appendix in the TA that was for the trip rate for the Saturday peak hour in fact showed the total 2023 Saturday predicted flows and hence confusion has arisen with regard to the 2023 predicted development flows for the Saturday.
- 2.6 Notwithstanding this, the Transport Assessment Addendum has included an update of the Saturday trip generation rates to reflect an actual trip generation

for a residential development on a Saturday. Therefore a search has been undertaken using the TRICS database for a Saturday trip generation rate for land use class 'Residential – Houses Privately Owned', with the full TRICS output attached at **Appendix BGH2** and summarised in Table 2.1.

Table 2.1 Trip Rates and Generation

Land Use (Up to 106 dwellings)	Trip Rate		
	Saturday Peak Hour		
	Arrive	Depart	Two-Way
Trip Rate	0.165	0.203	0.368
Traffic Generation	17	22	39

- 2.7 The predicted trip generation for Saturday peak hour has been distributed on the local highway network using the same trip distribution used in the original Transport Assessment. The revised predicted Saturday trip generation can be seen on the traffic flow diagram attached at **Appendix BGH3**.

Lee Lane/Shaw Lane Junction

- 2.8 As part of the committed development at Lee Lane there is a proposal to undertake some minor works at the Lee Lane/Shaw Lane junction in order to increase the capacity of the junction. The proposed improvement scheme for the junction has been included within the modelling of the 2023 Base and 2023 predicted scenarios as a committed development. The drawing attached at **Appendix BGH4** shows the proposed scheme at the Lee Lane/Shaw Lane junction as requested by BMBC.

Lidl Trip Generation Rates

- 2.9 The Transport Assessment for the proposed residential development scheme was prepared in conjunction with a Transport Assessment for a site to the south of the development for a Lidl foodstore. As part of the original TA, sensitivity testing was undertaken which looked at the impact of the Lidl foodstore on the junctions on the local highway network.
- 2.10 AECOM also provided a review of the Transport Assessment for the proposed Lidl foodstore and asked for a number of updates to be provided regarding their

Transport Assessment. Specifically AECOM provided new trip generation rates for the Saturday peak hour for the Lidl foodstore which should be used to update the Transport Assessment for the Lidl foodstore. The trip generation rates for the Saturday Peak Hour set out in the AECOM review of the Transport Assessment have been used to re-assess the impact of the Lidl foodstore.

- 2.11 Given that sensitivity testing was undertaken in the original Transport Assessment for the residential development, this has been undertaken as part of this Addendum and is set out in Tables 2.9 to 2.16 for the Saturday peak hour.

2023 Predicted Saturday Operational Assessment.

- 2.12 Given that the only amendment necessary to the flows used within the original Transport Assessment was updating the Saturday Trip rates, this scenario has been re-run and the results set out in Table 2.2 to Table 2.8 show the revised modelling of the 2023 predicted scenario for the Saturday peak hour with the revised trip generation.

Table 2.2 – Wakefield Road/Lee Lane/Shaw Lane 2023 Predicted Saturday

	Saturday Daytime Peak	
	RFC	Queue (PCU)
Shaw Lane Left Turn	0.26	0
Shaw Lane Right Turn	1.18	35
Wakefield Road (NB) Right Turn to Lee Lane	0.34	1
Lee Lane Left Turn	0.28	0
Lee Lane Right Turn	1.10	21
Wakefield Road (SB) Right Turn to Shaw Lane	0.20	0

- 2.13 The results of the modelling of the Wakefield Road/Lee Lane/Shaw Lane show that the junction is predicted to continue to operate over capacity with the predicted Saturday development related traffic. It is considered that the development does not have a significant impact on the operation of the junction.

Table 2.3 – Wakefield Road – Paddock Road 2023 Predicted Saturday

	Saturday Daytime Peak	
	RFC	Queue (PCU)
Paddock Road Left Turn	0.04	0
Paddock Road Right Turn	0.56	1
Right Turn to Paddock Road	0.02	0

- 2.14 The results of the modelling of the Wakefield Road/Paddock Road junction in the Saturday peak hour show that the junction is predicted to continue to operate within capacity during the Saturday daytime peak.

Table 2.4 – Wakefield Road – Bar Lane 2023 Predicted Saturday

	Saturday Daytime Peak	
	DoS	Queue (PCU)
Wakefield Road Southbound	58.7%	11
Wakefield Road Northbound	91.5%	27
Bar Lane	91.4%	17

- 2.15 The results show that the junction is predicted to continue to operate close to capacity with the development related traffic. There are only minimal increase in queue length on any given approach against the 2023 base assessment. Given this it is considered that the development does not have a significant impact on the operation of the junction.

Table 2.5 – Wakefield Road – Laithes Lane 2023 Predicted Saturday

	Saturday Daytime Peak	
	RFC	Queue (PCU)
Wakefield Road South	90.5%	30
Wakefield Road North	90.2%	28
Laithes Lane	89.2%	17

- 2.16 The results show that the junction is predicted to operate within capacity with the development related traffic and some minor increases in queue length on the Wakefield Road north and south approaches to the junction.

Table 2.6 – Wakefield Road – Rotherham Road 2023 Predicted Saturday

	Saturday Daytime Peak	
	RFC	Queue (PCU)
A61 North	0.59	1
A633 Rotherham Road	0.74	3
A61 South	0.79	4

- 2.17 The results shown that the junction is predicted to operate within capacity with the additional development generated traffic in the Saturday peak hour.

Table 2.7 – Give-way Rotherham Road to Wakefield Road – 2023 Predicted

	Saturday Daytime Peak	
	RFC	Queue (PCU)
Give way left turn	0.14	0

- 2.18 The results show that the approach is predicted to continue to operate within capacity with the development related traffic during the Saturday peak hour.

Table 2.8 – Proposed site access onto Wakefield Road 2023 Predicted Saturday

	Saturday Daytime Peak	
	RFC	Queue (PCU)
Site Access	0.07	0
Wakefield Road NB Right Turn to site	0.02	0

- 2.19 The results of the modelling of the site access junction show that the junction will operate within capacity during the Saturday peak period.

2023 Predicted Sensitivity Testing

- 2.20 As was undertaken for the Transport Assessment, a sensitivity test has been undertaken in order to consider the impact of the proposed Lidl foodstore proposed on land to the south of the residential development.
- 2.21 The following tables and accompanying text set out the operational assessments of the proposed residential development and the Lidl foodstore for the Saturday daytime peak period following the updating of the trip generation for the foodstore.

Table 2.9 – Wakefield Road/Lee Lane/Shaw Lane 2023 Sensitivity

	Saturday Daytime Peak	
	RFC	Queue (PCU)
Shaw Lane Left Turn	0.27	0
Shaw Lane Right Turn	1.23	42
Wakefield Road (NB) Right Turn to Lee Lane	0.36	1
Lee Lane Left Turn	0.30	0
Lee Lane Right Turn	1.17	27
Wakefield Road (SB) Right Turn to Shaw Lane	0.20	0

2.22

The results show that the junction is predicted to continue to operate above capacity with the addition of the Lidl development related traffic. There are only small increases in queue length above what was previously modelled as part of the original TA. The queue on Shaw Lane for right turning vehicles increased by 2 PCUs with the updated trip generation rate. The queue on Lee Lane for right turning vehicles increased by 3 PCUs above that modelled for the original TA.

Table 2.10 – Wakefield Road – Paddock Road 2023 Sensitivity

	Saturday Daytime Peak	
	RFC	Queue (PCU)
Paddock Road Left Turn	0.04	0
Paddock Road Right Turn	0.65	2
Right Turn to Paddock Road	0.02	0

- 2.23 The results show that the junction is predicted to continue to operate within capacity during the Saturday peak period, with the addition of the Lidl development related traffic.

Table 2.11 – Wakefield Road – Bar Lane 2023 Sensitivity

	Saturday Daytime Peak	
	DoS	Queue (PCU)
Wakefield Road Southbound	67.2	14
Wakefield Road Northbound	98.1%	39
Bar Lane	95.1%	19

- 2.24 The results in Table 2.11 show that the junction is predicted to continue to operate within capacity with the addition of the Lidl development related traffic. There are small increases in queue on top of the queues which were predicted as part of the original TA, specifically on Wakefield Road northbound where the queue increases from 32 PCUs to 29 PCUs.

Table 2.12 – Wakefield Road – Laithes Lane 2023 Sensitivity

	Saturday Daytime Peak	
	DoS	Queue (PCU)
Wakefield Road South	94.5%	39
Wakefield Road North	94.3%	33
Laithes Lane	94.0%	20

- 2.25 The results show that the junction is predicted to operate at capacity with the addition of the Lidl development related traffic. There are increases in queue length on top of what was previously modelled of an additional 8 PCUs on the Wakefield Road south approach to the junction.

Table 2.13 – Wakefield Road – Rotherham Road 2023 Sensitivity

	Saturday Daytime Peak	
	RFC	Queue (PCU)
A61 North	0.63	2
A633 Rotherham Road	0.82	4
A61 South	0.85	5

- 2.26 The results show that the junction is predicted to operate within capacity with the addition of the Lidl development traffic. The results of the modelling of this junction are very similar to the results set out in the TA.

Table 2.14 – Give-way Rotherham Road to Wakefield Road – 2023 Sensitivity

	Saturday Daytime Peak	
	RFC	Queue (PCU)
Give way left turn	0.14	0

- 2.27 The results show that the approach is predicted to continue to operate within capacity with the Lidl development related traffic.

Table 2.15 – Proposed site access onto Wakefield Road 2023 Sensitivity

	Saturday Daytime Peak	
	RFC	Queue (PCU)
Site Access	0.07	0
Wakefield Road NB Right Turn to site	0.02	0

- 2.28 The results show that the proposed site access arrangement is predicted to operate within capacity during the Saturday peak hour with the addition of the Lidl development related trips.

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