

AA.23.20.07 Land to the Southeast of Higham Common Road Barnsley

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Introduction

Fore Consulting Limited [Fore] was commissioned in July 2021 by Strata Sterling Barnsley West Ltd [the Applicant] to provide an assessment of the transport related impacts associated with hybrid planning applications for two developments at a site southeast of Higham Common Road Barnsley. The proposals will see a significant mixed-use development on 115 hectares of land, comprising approximately 43 hectares of employment land and 1,760 new homes.

Background

In October 2021, the Jacobs SYSTRA Joint Venture [JSJV] reviewed the Transport Assessment [TA], included as Appendix 8.1 of the Environmental Impact Assessment [EIA]. Our reviews [TM01 and TM02], and further reviews in April 2022 [TM03], May 2022 [TM04], and August 2022 [TM05] highlighted that, considering the information presented, the application should be subject to a Holding Recommendation. In all instances, JSJV recommended that the Applicant provide further details to inform National Highways' response to the planning application.

For reference, our August 2022 review [TM05] concluded that the JSJV recommendation for a National Highways Holding Recommendation should be maintained.

Subsequent to TM05, JSJV on behalf of National Highways, corresponded with Fore on multiple occasions from September 2022 to February 2023, with JSJV ultimately validating the 2022 Base LinSig model for Junction 37 of the M1 in February 2023 exclusively for the '2022 observed year' scenario.

Within the formal response issued in February 2023, National Highways reaffirmed that the current holding recommendations still apply to both applications [2021/1089 and 2021/1090] as National Highways require further information with regard to the TA, as raised in TM05, and that the guidance outlined in DfT Circular 01/2022 should be applied to both planning applications. This is in line with other emerging development in the area.

In April 2023, Fore submitted a Technical Note (TN) responding to matters raised in JSJV TM05. The TN included an updated trip generation forecast and presented updated junction capacity assessments of M1 Junction 37 and a capacity assessment of Whinby Road / B6449 three-arm roundabout. Our TM08 set out a review of the Fore TN [April 2023] and concluded that further information was required. We also note that a meeting was held between JSJV and Fore on 5th June 2023 to discuss the response.

In July 2023, Fore submitted a further Technical Note, modelling files, an updated Framework Travel Plan [FTP], and an updated Workplace Framework Travel Plan [WFTP]; our TM09 set out a review of the information and concluded that further information was required with regard to the Travel Plan, AM trip generation, junction modelling and merge / diverge analysis.

In August 2023, Fore submitted additional information relating to the merge diverge assessments; TM10 set out the JSJV review of the information and concluded that a meeting with National Highways was prudent, to discuss any necessary developer actions regarding mitigation.

In September 2023, Fore submitted additional information relating to the junction modelling; our TM11 set out a review of the information and concluded that additional comments required to be addressed.

In October 2023, Fore submitted additional information relating to the junction modelling; our TM12 concluded that the submitted information was acceptable and that conditions should be imposed on the planning consent, if the LPA is minded to approve, including:

- 1) *Unless otherwise agreed in writing by the Local Planning Authority in consultation with National Highways, occupation of the development hereby approved shall not take place unless and until a detailed Travel Plan has been submitted to and approved in writing by the Local Planning Authority in consultation with National Highways.*

Reason: To encourage the use of sustainable modes of transport in line with National and Local Government policies.

- 2) *Unless otherwise agreed in writing by the Local Planning Authority in consultation with National Highways, construction of the development hereby approved shall not take place unless and until evidence has been provided to demonstrate that the development complies with Paragraphs 57 and 59 of the DfT Policy Paper Strategic road network and the delivery of sustainable development [December 2022].”*

In November 2023, Fore submitted a Transport Assessment Addendum [TAA] and this Technical Memorandum [TM13] will set out the JSJV review of the information presented.

Site Context

For reference, the Local Planning Authority [LPA] and Local Highway Authority [LHA] is Barnsley Metropolitan Borough Council [BMBC].

The application site is located within the BMBC allocation ‘MU1’ and is defined as a strategic development site intended to accommodate a significant proportion of the new housing, employment, and education within the district. The application site is subject to two hybrid planning applications, under two separate planning references. The two respective sites cover the majority of MU1, comprising application refs: 2021/1090 and 2021/1089:

- **2021/1090** – Detailed application for 229 dwellings with a new link road and outline application for residential development of 1,531 dwellings, new primary school, small shops, and community facilities; and
- **2021/1089** – Detailed application for earthworks / drainage and outline application for employment use development [use classes E/B2/B8].

The application site is located on the western edge of Barnsley, comprising an undeveloped plot between the neighbourhoods of Barugh Green and Gawber, with A635 Barugh Green Road and the M1 motorway forming the northern and southern boundaries of the site. The application site has an area of approximately 115 hectares and is mainly used as for pasture with some arable farming.

The location of the application site in relation to the SRN, including the 2021/1090 and 2021/1089 application red lines, is presented in **Figure 1**.

Figure 1. Site location in relation to the Strategic Road Network (© OpenStreetMap contributors)



As indicated within **Figure 1**, the site is situated 280m to the north of Junction 37 of the M1 motorway, a four-arm grade separated roundabout. The M1 forms part of the Strategic Road Network [SRN] and the 2021/1089 site shares approximately 850m of boundary with the M1 carriageway.

Technical Review

As noted, this Technical Memorandum will set out our review of the information submitted which comprises the following:

- Transport Assessment Addendum [TAA] [Issue Version 2.1] dated 10th November 2023.

Fore has advised that the Transport Assessment Addendum (TAA) “*the document is consistent with the analysis presented in our Technical Note (Issue v6.0) dated 13 October 2023. Section 7.5 of the document presents the capacity assessments of M1 Junction 37, as per TN Issue v6.0*”.

We have undertaken review of the TAA against the earlier TN [Issue v6.0] and our comments are provided below.

Introduction

The planning application references and development quantum are consistent with ‘Technical Note: Updated M1 Junction 37 Assessment – Version 6.0’ (TN Issue v6.0).

Development Proposals

The planning application references and development quantum are consistent with TN Issue v6.0.

Residual Vehicle Trip Generation

The residual vehicle trip generation has been reviewed and we note the following:

- Residential residual trip generation contained within Table 8 is consistent with TN Issue v6.0 (Table 3);
- Employment baseline trip generation contained within Table 14 is consistent with TN Issue v6.0 (Table 2);
- Employment residual trip generation contained within Table 15 is consistent with TN Issue v6.0 (Table 3);
- Total Residential traffic flow diagrams (Figures 5 and 6) are consistent with TN Issue v6.0 (Figures 13 and 14); and
- Total Employment traffic flow diagrams (Figures 12 and 13) are consistent with TN Issue v6.0 (Figures 15 and 16).

Proposed Link Road Traffic Reassignment

The link road traffic reassignment has been reviewed and the following is noted:

- Sheffield City Region Transport Model (SCRTM) Do Minimum traffic flow diagrams (Figures 34 and 35) are consistent with TN Issue v6.0 (Figures 7 and 8);
- SCRTM Do Something Scenario 1 traffic flow diagrams (Figures 36 and 37) are consistent with TN Issue v6.0 (Figures 9 and 10); and
- Link Road Reassignment traffic flow diagrams (Figures 38 and 29) are consistent with TN Issue v6.0 (Figures 11 and 12).

Existing and Future Traffic Flows

The existing and future traffic flows have been reviewed and we note the following:

- 2022 Base Year traffic flow diagrams (Figures 40 and 41) are consistent with TN Issue v6.0 (Figures 1 and 2), with the exception that U-turn values are added at M1 J37 and Whinby Road Roundabout;
- Committed Development contained in Table 10 are consistent with TN Issue v6.0 Table 4;

- Committed Development traffic flow diagrams (Figures 49 and 50) are consistent with TN Issue v6.0 (Figures 3 and 4); and
- TEMPro growth factors contained within Table 22 are consistent with TN Issue v6.0 Table 5.

Assessment Scenarios

The assessment scenarios have been reviewed and we note the following:

- 2026 Do Minimum traffic flow diagrams (Figures 58 and 59) are consistent with TN Issue v6.0 (Figures 5 and 6), with the exception that U-turn values are added at M1 J37 and Whinby Road Roundabout; and
- 2026 With Development traffic flow diagrams (Figures 68 and 69) are consistent with TN Issue v6.0 (Figures 19 and 20), with the exception that U-turn values are added at M1 J37 and Whinby Road Roundabout.

Junction Capacity Assessments

The junction capacity assessment results have been reviewed and we note the following:

- M1 J37 2026 Future Year assessment results in Table 34 are consistent with TN Issue v6.0 Table 6;
- M1 Off-slip MMQ summary results in Table 35 are consistent with TN Issue v6.0 Table 7;
- Whinby Road MMQ summary results in Table 36 are consistent with TN Issue v6.0 Table 8;
- M1 J37 LinSig Modelling 2022 Base results within Appendix J-5 are consistent with TN Issue v5.0 Appendix F;
- M1 J37 LinSig Modelling Future Year results within Appendix J-5 are consistent with TN Issue v6.0 Appendix C;
- M1 J37 Merge assessment results in Table 37 are consistent with TN Issue v6.0 Table 9;
- M1 J37 Diverge assessment results in Table 38 are consistent with TN Issue v6.0 Table 10;
- M1 J37 Merge / Diverge assessment results in Appendix J-6 are consistent with TN Issue v6.0 Appendix D;
- Whinby Road Roundabout 2022 Base Year assessment results in Table 39 are consistent with TN Issue v6.0 Table 11;
- Whinby Road Roundabout 2026 Opening Year assessment results in Table 40 are consistent with TN Issue v6.0 Table 13; and
- Whinby Road Roundabout Junctions 10 assessment results in Appendix J-7 are consistent with TN Issue v6.0 Appendix G.

Travel Plan(s)

JSJV notes that the planning portal contains two Travel Plans with October 2023 in their title, however, upon review the documents are dated July 2023. Further, it appears that our previous comments have not been addressed. It is considered that

updated Travel Plans should be submitted to BMBC and National Highways for review and approval prior to occupation of the proposed development.

Construction Traffic Management Plan

JSJV would also recommend that a Construction Traffic Management Plan [CTMP] is submitted for review, and approval, prior to construction of the proposed development to manage construction traffic impacts for the M1 and ensure the safe and efficient operation of the SRN.

Summary and Conclusions

The Jacobs SYSTRA Joint Venture [JSJV] has reviewed the information submitted by Fore and considers that this is consistent with the information previously reviewed. This notwithstanding, we previously noted that changes to the Travel Plan are required and recommended conditions be applied to the planning consent, should the LPA be minded to approve.

The recommendation to National Highways in relation to this development proposals is:

Recommend conditions – conditions required (as identified below).

This review has highlighted that the requirement for recommending conditions as follows:

- 1) *Unless otherwise agreed in writing by the Local Planning Authority in consultation with National Highways, occupation of the development hereby approved shall not take place unless and until a detailed Travel Plan has been submitted to and approved in writing by the Local Planning Authority in consultation with National Highways.*

Reason: To encourage the use of sustainable modes of transport in line with National and Local Government policies.

JSJV would recommend that the existing Travel Plan be updated:

- a. The TP should contain a commitment that National Highways is sent the TPC details;
- b. The TPC(s) should be in place for five years post final occupation. Further, we would expect the lifespan of the TPs to be five years from final occupation, if occupation is phased;
- c. National Highways should be consulted on any changes to the TPs;
- d. A higher response rate should be targeted for the annual travel surveys; and
- e. National Highways should be consulted on the Travel Plan Monitoring Reports.

Further, a second condition is recommended to cover the topic of boundary treatment:

- 2) *Unless otherwise agreed in writing by the Local Planning Authority in consultation with National Highways, construction of the development hereby approved shall not take place unless and until evidence has been provided to demonstrate that the development complies with Paragraphs 57 and 59 of the DfT Policy Paper ‘Strategic road network and the delivery of sustainable development’ [December 2022].”*

A third condition is recommended to cover the CTMP:

Condition:

- 3) *No development / construction hereby approved shall commence until a Construction Traffic Management Plan has been submitted to and approved in writing by the Local Planning Authority, in consultation with National Highways.*

Informative:

The CTMP shall include but not be limited to the following:

- *Details of construction timescales, start / finish times, and associated periods of traffic movements to the site.*
- *Details of construction traffic volumes and routeing to the site.*
- *Measures to ensure that vehicles leaving the site do not deposit mud or other detritus on the strategic and local highway network.*
- *Details of any abnormal load vehicles and arrangements for agreeing abnormal loads with National Highways in advance of these occurring.*

Reason:

To manage construction traffic impacts for the M1 and ensure the safe and efficient operation of the SRN.