



National Highways Planning Response (NHPR 21-09) Formal Recommendation to an Application for Planning Permission

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To: Hinckley & Bosworth Borough Council FAO Christopher Brown

CC: transportplanning@dft.gov.uk
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Council's Reference: 22/00882/OUT

Location: Land Adjacent Mira Technology Park Caldecote

Proposal: Outline planning application (all matters reserved) for extension of MIRA Technology Park to comprise employment use (Class B2); associated office and service uses (Class E g); storage (Class B8); new spine road; car parking, landscaping and enabling works

National Highways Ref: 96429

Referring to the consultation on a planning application dated 7 October 2022 referenced above, in the vicinity of the A5 that forms part of the Strategic Road Network, notice is hereby given that National Highways' formal recommendation is that we:

- ~~a) offer no objection (see reasons at Annex A);~~
- ~~b) recommend that conditions should be attached to any planning permission that may be granted (see Annex A – National Highways' recommended Planning Conditions & reasons);~~
- c) recommend that planning permission not be granted for a specified period (see reasons at Annex A);
- ~~d) recommend that the application be refused (see reasons at Annex A)~~

Highways Act 1980 Section 175B is relevant to this application.¹

This represents National Highways' formal recommendation and is copied to the Department for Transport as per the terms of our Licence.

Should the Local Planning Authority not propose to determine the application in accordance with this recommendation they are required to consult the Secretary of State for Transport, as set out in the [Town and Country Planning \(Development Affecting Trunk Roads\) Direction 2018](#), via transportplanning@dft.gov.uk and may not determine the application until the consultation process is complete.

Date: 19 October 2023	
Signature:	
Name: Martin Seldon	Position: Assistant Spatial Planner
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¹ Where relevant, further information will be provided within Annex A.

Annex A **National Highway's assessment of the proposed development**

National Highways has been appointed by the Secretary of State for Transport as a strategic highway company under the provisions of the Infrastructure Act 2015 and is the highway authority, traffic authority and street authority for the Strategic Road Network (SRN). The SRN is a critical national asset and as such we work to ensure that it operates and is managed in the public interest, both in respect of current activities and needs as well as in providing effective stewardship of its long-term operation and integrity.

Recommended Non-Approval

It is recommended that the application should not be approved for a period of three months to allow the applicant to submit the requested information below.

Update – October 2023

Summary

Strategic Transport Modelling:

National Highways has completed its consideration of the modelling outputs provided in regards to the PRTM modelling provided by the applicants consultants, Milestone. Based on this assessment further discussions are required with the applicants and their consultants to address the development proposals impacts on the A5 Corridor notably the following locations:

- A5 / Mira / Proposed Access Roundabout Junction
- A5 / Higham Lane Roundabout Junction

We will seek a meeting with the applicants to discuss the outputs and get further clarification. However, we consider it likely that further mitigation is required at these locations for the development to be considered acceptable in accordance with Circular 01/2022 and paragraph 111 of the NPPF. At this time National Highways has not agreed to the Strategic Transport Modelling.

A5 / A47 The Longhoo – Dodwells Junction:

National Highways has considered the VISSIM modelling and analysis provided. Based on our conclusions the junction cannot suitably operate with the scale of development proposed, which would undermine highway safety. In addition, the proposed mitigation is not suitable to accommodate the development. National Highways will be seeking a meeting with their applicants and transport consultants, and therefore at this time National Highways has not agreed the VISSIM modelling for the Longshoo – Dodwells Junction nor the proposed mitigation.

We have also carried out an initial technical review of the proposed geometry of the improvement schemes at:

- A5 / Mira / Proposed Access Roundabout Junction
 - A5 / Drayton Lane
 - A5 / Woodford Lane
 - A5 / A444 Redgate Island
-
- The proposals appear to be based on Ordinance Survey maps rather than site measurements and as such this may affect scheme viability/delivery
 - Drawings issued do not show scheme extents, land ownership, highway boundaries, SRN interface with the Local Road Network (LRN), constraints, levels, etc
 - Confirmation should be provided on whether any potential Departures from Standard, whether existing (to be retained) or proposed, have been identified
 - Similarly, confirmation should be provided on whether any Relaxations from Standards are required. If so, have these been recorded (with their justification) in a Design Strategy Record (DSR)
 - Furthermore, dimensions of all proposed geometric changes are not provided on the drawings issued to enable checking
 - Visibility requirements cannot be checked to DMRB requirements due to insufficient information. Appropriately sized drawings are necessary to demonstrate visibility in the horizontal and vertical planes
 - Existing and proposed cross sections and long sections have not been provided to enable alignment checks
 - Swept paths are required to demonstrate proposed geometry is appropriate

Due therefore to insufficient information being provided, a technical review of the proposed schemes for DMRB compliance is not possible at this time.

The applicants have recently submitted a Transport Assessment Addendum, responding to previous comments from National Highways, Warwickshire County Council and Leicestershire County Council, as well as discussions with local stakeholders. Specifically:

"responses and information on further traffic modelling, proposed updates to junction designs and confirmation of sustainable transport improvements for public transport, pedestrians and cyclists."

The design updates relating to the SRN are stated to be new proposals to make the A5 / Drayton Lane and A5 / Woodford lane junctions left-in left-out only.

This new information is currently being reviewed. At first glance, the drawings provided of the revised junction designs appear to include a similar level of detail to those previously presented. As detailed above, to would mean that a review of DMRB compliance could not be undertaken.

Update – July 2023

Since issuing our response of April 2023 we have agreed the methodology for the use of PRTM. Under this the outputs will be reviewed to understand the change in predicted traffic flows at the A5 junctions. Following this we may request that some of the junction analysis is re-run using PRTM data for any capacity changes. Following the recent submission of the PRTM Forecasting Report and junction flows, we reviewed these with the following comments:

- The levels of trip generation and distribution have been previously agreed;
- It is noted that the turning movements at the A5 / Drayton Lane and A5 / Woodford Lane junctions has been restricted, which is in line with previous discussions, however, no details regarding the exact proposals has been provided and this should be submitted;
- The process as set out in the report is considered to be reasonable and can be agreed;
- The proposed Area of Influence (AoI) is considered to be appropriate, as it relates to the Strategic Road Network (SRN), and again reflects previous discussions with the following junctions being taken included:
 - A5 / B4111 / B4116 Mancetter Island;
 - A5 / Drayton Lane;
 - A5 / Woodford Lane;
 - A5 / A444 Redgate Island;
 - A5 / MIRA Roundabout (proposed access roundabout);
 - A5 / Higham Lane;
 - A5 / A47 The Long Shoot; and
 - A5 / A47 / B4666 Dodwells Roundabout
- We have also reviewed the provided turning count data: in relation to the Higham Lane junction it is noted that the approach flows are higher in the Without Development scenario, whereas the V/C is higher in With Development scenario; we would request some further explanation regarding this.

The applicant has recently submitted VISSIM modelling results for A5 Longshoot – Dodwells incorporating PRTM outputs for the MIRA development. These are currently being reviewed to determine the impact on this area of the SRN.

The applicant has also submitted updated plans of the proposed improvements at the site access, Woodford Lane, Drayton Lane and Redgate Junctions. As discussions are continuing with the applicants regarding the traffic modelling, we are not able to confirm whether the designs would be acceptable. Once any designs are agreed, Stage 1 Road Safety Audits would need to be undertaken.

Summary – April 2023

National Highways has continued to work with the applicant as well as the local highway authorities, to progress the traffic modelling. The applicant has commissioned a review of the proposals using LCC's Pan Regional Traffic Model (PRTM). Following an inception meeting, between the various parties, in February to agree the scope and parameters a Base Model run was undertaken.

Having reviewed the Base Model run we advised that, given that the development has already been modelled and "signed-off" using the Warwickshire Nuneaton & Bedworth Wide Area (NBWA) PARAMICS model, National Highways are content that the Base Year model is used "as is". However, we will compare the "With Development" forecast flows from PRTM and the Warwickshire NBWA model and may ask that the Base Year model be revisited, if the distribution of development traffic is significantly different between both models. We also had no comments on the submitted Uncertainty Log. Following this confirmation, the applicant will be undertaking further 'with development' model runs.

The application is supported by a Transport Assessment (TA) prepared by Milestone Transport Planning (MTP). Although we carried out an initial review of the TA, the traffic impact has not been fully assessed as further details were required in terms of the PARAMICS model.

The PARAMICS model has now been supplied and we will continue to review the modelling. However, to enable us to do so, fully dimensioned drawings should be provided to verify the traffic models, as well as to allow a check to be made to ensure that they comply with the relevant DMRB standards.

In addition, the proposed highway works will need to be a subject to Stage 1 Road Safety Audit (RSA) in line with DMRB GG119. An RSA 1 Brief will need to be submitted to us for approval prior to undertaking the RSA.

Further, in line with paragraph 11 of DfT Circular 02/2013:

"Local authorities and developers will be required to ensure that their proposals comply in all respects with design standards. Where there would be physical changes to the network, schemes must be submitted to road safety, environmental, and non-motorised user audit [WCHAR] procedures, as well as any other assessment appropriate to the proposed development..."

On this basis, the Applicant should undertake WCHAR in line with GG 142.

We would also request that vehicle swept paths are shown to ensure that the layout can safely accommodate all vehicle types.

We have provided a note on our review of the Transport Assessment to date to MTP: however, some of the key point can be summarised as follows:

- it would be useful if walking and cycling isochrones could be provided showing the catchments within acceptable walking distances. This would then assist in determining the likely demand for these modes of travel;
- there is only one crossing of the A5, an existing underpass on the NCN, and this may then deter some users from accessing the footway on the north side of the A5, consideration should be given to providing an at-grade facility;
- whilst the diversion of the existing bus route through the site is welcomed, further agreement and discussion will be required with the local authority and bus operators in order to provide certainty over its deliverability;
- whilst drawings have been provided showing the highway works, we would require these to be fully dimensioned so that we can verify that the traffic models accurately reflect the proposals;
- the traffic assessment has been determined using the NBWA PARAMICS model and further information has been requested, and now received, to allow us to undertake a full review,
- the site access roundabout onto the A5 shows an increase in queuing and RFC in the with development scenario;
- the A5 / Higham Lane roundabout again shows increases in queuing on the A5 as a result of the addition of the development traffic;
- the A5 / Woodford Lane / Drayton Lane junctions are proposed to be signalised, although the queue from Woodford Lane is predicted to reach the Drayton Lane junction. Consideration should be given to using a single traffic model so that the interactions can be better modelled.
- It should then be restated that the traffic impact is not yet accepted and will be subject to the ongoing review of the PARAMICS model and a review of the fully dimensioned drawings against the supplied traffic models.

Update – January 2023

Having reviewed the PARAMICS model we noted a number of concerns which we forwarded to the applicant:

Base Model Review

- The Redgate junction was not included in the calibration and validation process, which means the accuracy of the future conditions within this area need to be considered carefully;
- There are several links within the base model that generally display lower traffic flows than the observed traffic flows along the A5, which could result in an underestimation of the disbenefits attributed to the MIRA Development; and
- Base modelled journey times along the A5 between Higham Lane and the A47 in the eastbound direction were found to be lower than that observed, this will underestimate of the forecast journey times attributed to the MIRA Development within this area
- The applicants have provided dimensioned drawings in support of the traffic modelling for the MIRA site. We have undertaken a review of these and would consider that they are generally acceptable, but would just wish to point out the following issues:
 - A5 / MIRA site access roundabout, for arm 4 (A5 NW) an entry width of 8.45m has been dimensioned and an entry width of 8.50 has been used in the modelling, and whilst this is a relatively minor difference, given it is predicted to operate above capacity, the correct values should be used, and
 - A5 / A444 Redgate junction, for arm 3 (A5 W) an entry width of 7.01m has been measured against a value of 8.30m in the modelling, this should then be amended.

Network Review

- Clarification is required on several elements of the Reference Case models;
- In the DS models, speed limits on the A444 between the A5 and the new Development roundabout have not been reduced as specified; and
- Of most note is the number of inconsistencies in the visibility, gap adjustment, and gap acceptance parameters between the Base model, the Reference Case / Local Plan models and the Development + DS models. For a true comparison these parameters should be kept consistent with the Base model

Demands Review

- The background light vehicle flows are lower within the Local Plan models compared to the Reference Case models. Clarification is required;
- There is a discrepancy with the Local Plan Report which indicates that the total AM peak demands in Matrix 6 should be 8,421 vehicles, as opposed to the 6,734 vehicles observed in the model. Similarly, the Local Plan Report indicates that the total PM peak demands in Matrix 6 should be 8,864 vehicles, as opposed to the 7,265 vehicles observed in the model. Clarification of where the modelled demands come from is required; and
- The approach adopted for profiling the demands is appropriate, with survey data being used to inform the profiles

Flow Assessment

- Traffic flows during the AM and PM peak periods have increased between the Reference Case / Local Plan models and the Reference Case / Local Plan + Development models, most significantly on the A444. Between the Reference Case / Local Plan + Development model and the Reference Case / Local Plan + Development + DS model, traffic flows on the A444 decrease significantly. Conversely, traffic flows on Mira Drive, the new Development access, have increased between the Development and DS models. It is assumed that these changes in traffic flows on the A444 and Mira Drive can be attributed to the mitigation measures within the DS model which closes the northern section of the A444 to MIRA Development traffic and HGVs; and
- The modelled flow information indicates that traffic flows on Higham Lane have increased by during the AM peak period in the southbound direction between the Reference Case + Development and the Reference Case + Development + Ds models. Further explanation is required as to why this might be

Model Results

- During the AM period in the eastbound direction the journey times remain similar between the reference case and local plan scenarios. In the westbound direction the inclusion of DS reduces the journey times and in general mitigates against the development in both the Reference and Local Plan scenarios;
- During the PM period the journey times in the eastbound direction increase in both the reference case and local plan scenarios once the development and DS is introduced. A similar trend is being displayed in the westbound direction, however in the reference case the inclusion of the DS mitigates against the development whereas in the local Plan scenario it does not

The applicant is also intending to assess their proposed mitigation works, using LCC's PRTM model, together the Longshoot – Dodwells VISSIM model.

Regarding the Stage 1 RSA for the proposed highways works, National Highways has confirmed to the applicant that, this should only be undertaken once the works have been agreed with the highway authorities.

Standing advice to the local planning authority

The Climate Change Committee's 2022 Report to Parliament notes that for the UK to achieve net zero carbon status by 2050, action is needed to support a modal shift away from car travel. The NPPF supports this position, with paragraphs 73 and 105 prescribing that significant development should offer a genuine choice of transport modes, while paragraphs 104 and 110 advise that appropriate opportunities to promote walking, cycling and public transport should be taken up.

Moreover, the build clever and build efficiently criteria as set out in clause 6.1.4 of PAS2080 promote the use of low carbon materials and products, innovative design solutions and construction methods to minimise resource consumption.

These considerations should be weighed alongside any relevant Local Plan policies to ensure that planning decisions are in line with the necessary transition to net zero carbon.