



Development Control
Wrexham County Borough Council
16 Lord Street
Wrexham
LL11 1LG

Eich cyf / Your ref P/2023 /0593

Ein cyf / Our ref 23/NM-5991

11 October 2023

Dear Sir/Madam,

**TOWN AND COUNTRY PLANNING (DEVELOPMENT MANAGEMENT PROCEDURE) (WALES)
ORDER 2012:**

LAND AT LOWER BERSE FARM BERSHAM WREXHAM

**OUTLINE APPLICATION FOR ERECTION OF 1520 DWELLINGS (APPEARANCE, LANDSCAPING,
LAYOUT AND SCALE RESERVED) PROVISION OF LAND FOR A PRIMARY SCHOOL AND A
WASTE WATER TREATMENT PLANT**

I refer to your consultation of 21st September 2023 regarding the above application, and advise that the Welsh Government as highway authority for the A483 trunk road directs that planning permission is not granted at this time as the applicant has provided insufficient information to determine the application.

The applicant must provide the following information to support this application or resubmit the application with the following details;



Traffic Growth Figures

1) The applicant should specify which version of the National Transport Model has been used to inform the calculation of traffic growth factors. This is required in order to confirm the acceptability of the background traffic growth estimates used.

Committed Development

2) The Brymbo Park and Stansty Chain Road developments do not have planning permission and as such would not normally be included as committed development. The traffic growth estimates should be repeated with these sites excluded. A sensitivity test including these developments may also be useful in assessing the potential cumulative impact of developments.

3) The applicant should also clarify why Western Gateway Employment Site has been included as committed development as the development appears to have been built.

Trip Generation

4) The applicant should include the expected trips generated from outside of the development by the school (i.e. teachers living outside of the development etc.). In addition to staff trips, advice should be taken from WCBC on the likely number of pupil trips from west of the A483.

Trip Distribution

5) The applicant must provide the justification for the choice of using the 011 MSOA and for using 2011 data, instead of the more recent data from the 2021 census.

Transport Implementation Strategy

6) It was observed that the mode split targets set in the TIS could be more ambitious and these could be strengthened as a more detailed Travel Plan is developed. This could reduce the impact to the operation of Jct 4 of the A483.

Assessment Years

7) Junction assessments have been undertaken for 2028; the end of the current local plan period. It is highly unlikely that the development will be complete by 2028 and as such assessments should also be provided for the expected completion year.

A483 Junction 3

8) Given the location of the development site and access points on to Bersham Road, a portion of the traffic generated by the development may be expected to travel through A483 Junction 3. In addition, increased congestion at Junction 4 may displace traffic on to Junction 3. The applicant is advised to provide justification for not including Junction 3 in the assessment or include A483 Junction 3 in the traffic assessment before the TA is resubmitted for consideration.



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Review of Linsig Modelling A483 Junction 4 and A525 Ruthin Road/Croesnewydd Road/Site Access

9) The following issues have been observed in the Linsig model, therefore the applicant is advised to consider making the amendments proposed or provide justification for retaining the original proposals prior to resubmitting.

A525 Eastbound

9.1) In the proposed layout Linsig model, the left turn lane and movement has been omitted from the model as the lane is unsignalised and operates free flow, which is considered appropriate. However, the approach is coded as 2 long lanes both of which feed into the ahead movement, effectively providing additional capacity for the ahead movement. The Welsh Government believe the approach should be coded as a long lane with a short lane to the right to better reflect the proposed junction layout.

A525 Westbound

9.2) In the proposed layout Linsig model, the short left-turn lane is modelled as a long lane. The Welsh Government believe Lane 1 should be coded as a short lane which is considered a more appropriate representation of the proposed junction layout.

A483 Southbound off-slip

9.3) The proposed junction layout Linsig model provides a reasonable representation of the proposed intervention scheme. However, there is the potential for Linsig to overestimate the benefits of the use of an extended left turn lane which merges back to a single lane shortly after the stop line. Linsig will fully utilise the lane for queueing/discharging traffic flows, but in reality, there is the potential for the lane to be underutilised as drivers avoid needing to merge shortly after the junction exit and queue in a single lane.

The issue described above is considered particularly likely given the relatively short length of 2 lanes before traffic must merge, without any central reserve or protection from oncoming traffic.

Queues at the stop lines in the middle of the junction extend beyond the space available for stacking queueing vehicles. Better coordination of the signal timings or shorter cycle times may help to manage this. The results on the approaches to the junction are not representative as the queues are staked in the middle of the junction masking/reducing the impacts on other approaches.

Queuing of vehicles making the ahead movement on the eastbound approach to the junction in the morning peak is likely to block access to the left turn free flow lane, which will be stuck in the same queue as the ahead traffic further exasperating queue lengths and delays for traffic which is not included in the model.

A525 Ruthin Road / Croesnewydd Road / Site Access Signal Junction

9.4) The existing layout of Croesnewydd Road is a single lane. The proposed layout drawing does not indicate alterations are proposed to the Croesnewydd Road approach. However, the proposed



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junction layout Linsig model includes 3 lanes; a short left turn lane, a long ahead + right lane and a long right turn lane. This is a significant overestimation of capacity for the Croesnewydd Road approach when compared to the existing and proposed junction layout.

In addition, Lane 3 (right turn to A525 westbound) should give-way to opposing traffic emerging from the site access, which green phase runs in the same stage as Croesnewydd Road. The model network layout diagram appears to indicate Lane 2/3 does not give way to opposing traffic.

9.5) The proposed junction layout drawing indicates the eastbound left turn lane on approach to the junction will be extended to 80m from the stopline. The proposed junction layout Linsig model has been coded as 2 long lanes, which is not considered appropriate, thus the Welsh Government believe this should be coded as a long lane for ahead movements with an 80m short lane on the left for left turn movements.

This overestimation of capacity is on the arm leading from A483 / A525 junction. Reducing capacity of the approach in the model has the potential to have knock on effect to queues and delays at the junction in particular on this arm during the morning peak period which is shown as approaching capacity in the results provided in the TA.

Queue results on the A525 approach to the junction extend beyond the space available for stacking queueing vehicles. The proposed layout indicates a lane extends 80 metres from the stop line which is suitable for catering for approximately 13 PCUs. The results indicate average queues in excess of 20 PCUs which are likely to fluctuate throughout the peak period so could extend even further.

This issue is of particular concern as this approach leads from the A483 / A525 junction and issues on this approach could lead to queues blocking back to the main junction causing knock on issues for queues and delays.

Heavy goods vehicle percentages

10) Heavy goods vehicle percentages are set to zero. PCUs have been calculated which is appropriate however, inputting HGV % has an effect on the capacity of each movement. It is likely there will be a high proportion of HGVs in the area due to the strategic A-road nature of the surrounding network. This is particularly concerning given the junction already operates over capacity in the morning peak, on the arm which leads from the A483 / A525 junction.

If you have any further queries, please forward to the following Welsh Government Mailbox
NorthandMidWalesDevelopmentControlMailbox@gov.wales

Yours faithfully,

Helen Lewis