

MEMORANDUM

From:	Chief Officer, Environment & Technical	To:	Head of Economy and Planning
		FAO:	Gwyn Humphreys
Our Ref:	ET/DC/MM/DB/P/2023/0280	Your Ref:	P/2023/0280
Date:	1 st December 2023		

Land east of Bryn Lane, Wrexham Industrial Estate, Wrexham LL13 9UT

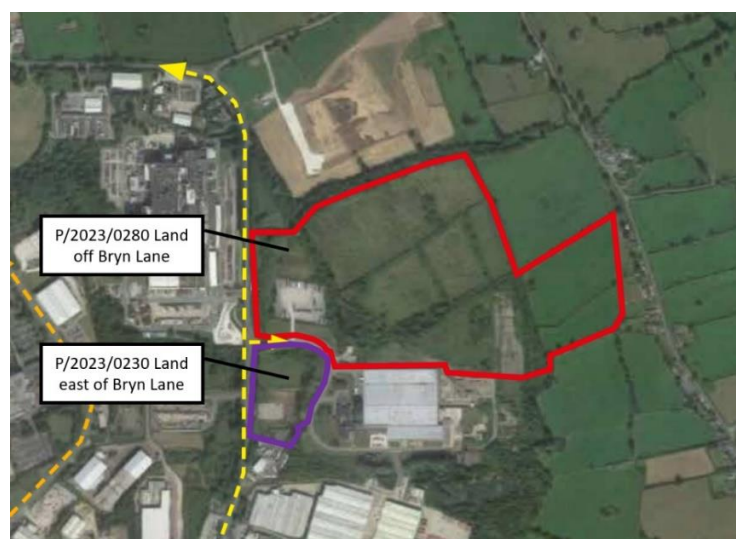
Hybrid planning application for (a) outline permission (all matters reserved except for means of access) for erection of up to 3 warehouse & distribution units (Use Class B8), including ancillary office accommodation, comprising up to 93,019sqm net floorspace, service yards, car parking, HGV parking, internal circulation, landscaping and ancillary works; and (b) detailed permission for demolition, means of access, earthworks, drainage, landscaping, ecology zone and relative ecological mitigation measures, and ancillary works

Further to your email / consultation dated 24/05/2023 in respect of the above, please see comments as follows:-

Background Information

This planning application, referred to as “Kingmoor, Land off Bryn Lane, Wrexham Industrial Estate” (P/2023/0280) is located to the east of Bryn Lane and to the north of the Very Group Access Road. The development proposals comprise the erection of two industrial units for B2 and B8 use with a total Gross Internal Area (GIA) of 8,471sqm. The application site is outlined in red in the image overleaf.

A separate planning application is currently being determined for a site to the south of Very Group Access Road and is referred to as “Land east of Bryn Lane, Wrexham Industrial Estate” (P/2023/0230). This site is outlined in purple in the image overleaf.



This review considers the proposed development within the context of recently consented planning applications in and around the Wrexham Industrial Estate and the adjacent proposed development, which is currently under consideration. It is considered that the interactions between the two developments and the cumulative impact of both developments should be assessed.

Scope of Review

Mott MacDonald have been asked to undertake a review of the following aspects of the planning application:

- *“Traffic Flow. (Existing and Proposed in combination, and taking into account the newly developed Net World Sports site now nearing completion)*
- *Consider existing infrastructure impact and appraise options to improve the traffic flow and capacity, future proofing with a growth factor for the above businesses”*

Highway drainage should be picked up within the Section 278 junction works improvements. The drainage for the private road should be included within the site proposed drainage as part of the SAB proposals, to ensure that surface water does not run onto the public highway. Bryn Lane surface water drainage cannot accommodate any additional drainage from beyond the public highway.

Refuse collection is not considered a major issue considering the onsite facilities for HGV movement.

Traffic Forecasting

Section 6 of the Transport Assessment sets out the methodology for forecasting the proposed development traffic.

Initial trip rates for B8 Storage and Distribution use were provided by the applicant in an initial scoping email (sent on 09/06/2022) and were subsequently accepted by Mott MacDonald by email on 27/07/2022. The relevant correspondence is attached at Appendix IV of the TA.

However, the TA adopts different trip rates for the purposes of the main assessment. These are derived from a consented site in Haydock, St Helens in North West England. These are a combination of TRICS trip rates and surveyed traffic generation at the Omega North development off junction 8 of the M62 in Warrington. The applicant justifies the use of these trip rates on the basis that, following an interrogation of the TRICS database, it was considered that there was a limited number of sites of a similar size to the development proposals and because these hybrid trip rates have been accepted by National Highways on three other consented schemes in the North West of England.

A comparison of the trip rates presented in the Kingmoor TA has been undertaken against the trip rates presented by the applicant at the scoping stage (and previously agreed with MM) which were derived from the TRICS database. The results of the comparison are presented below:

		Trip Rate			Comparison to Kingmoor TA Trip Rates		
		Arr	Dep	Tot	Arr	Dep	Tot
Kingmoor TA	08:00-09:00	0.088	0.064	0.152	-	-	-
	16:00-17:00	0.092	0.142	0.234	-	-	-
Kingmoor Scoping Email	08:00-09:00	0.156	0.097	0.253	44%	34%	40%
	16:00-17:00	0.071	0.125	0.196	-30%	-14%	-19%

Two-way total vehicle trip rates presented in the Kingmoor TA are 40% lower in the AM peak hour (08:00-09:00) than compared to the rates presented in the scoping email and 19% higher in the PM peak hour (16:00-17:00). This equates to a difference of 94 and -35 two-way vehicle movements in the AM and PM peak hours.

Whilst the Applicant provides some justification for the use of these rates, it is not considered that the selected rates are any more representative of the development proposals or site-specific considerations when compared to sites within the TRICS database. It is therefore recommended that a sensitivity test is undertaken to consider the impact of the development using the previously agreed TRICS trip rates, specifically in relation to understanding if any additional junctions would be 'scoped in' to the assessment.

Additionally, consideration could be given to deriving trip rates from local developments of a similar use, operation and size, such as the Very Group distribution centre located immediately adjacent to the application site.

Assessment years

The TA considers an opening year of 2027 and a future assessment year of 2036. TEMPro version 8 has been used to derive low traffic growth factors for cars and DfT Road Traffic Predictions (RTP) have been used to derive HGV growth, albeit the forecast negative growth has been manually adjusted to a factor of 1.00 for the period 2022 to 2027, which is considered acceptable.

Committed development/Traffic Growth

The Kingmoor TA considers the following committed developments within the vicinity of the site:

- Site 2 - 25,069 sqft B2/B8 (Clywedog Rd N);
- Site 3 - 45,079 sqft B2/B8 (Clywedog Rd E); and
- Site 4 - 35,015 sqft B2 (Clywedog Rd N).
- Site 1 (Bridgeway Centre) (P/2022/0065) - 120,000 sqft B2/B8 (Bridge Rd);
- Site 5 - 152,000 sqft B8 (Clywedog Rd S);
- The Oaks (P/2019/0877) - 184,000 sqft B1, B2 and B8 (Oak Rd);
- Net World Sports (P/2020/0167); and
- Land to the east of Bryn Lane (P/2020/0017) - 97,500 sqft B2/B8 – this is now superseded by (P/2023/0230).

To account for these developments and avoid double-counting, the TEMPro growth factors have been adjusted by modifying the jobs planning forecast, thereby "effectively removing job growth" from the traffic growth forecasts.

Of note, the assessment does not directly consider the impact of the recently submitted P/2023/0497 – Utopia City, Land North of Bryn Lane. This site is identified in the unadopted Local Development Plan as a Key Strategic Site (KSS3), but was not previously allocated in the adopted Unitary Development Plan (UDP), and therefore is unlikely to be accounted for within the TEMPro growth factors. Therefore it is considered that the assessment does not make adequate consideration of the cumulative impacts of the development within the context of local strategic development sites. It is recommended that a cumulative assessment is undertaken that takes into consideration planning application P/2023/0497.

In fact during the period of this review, additional apps are also being received, and we will agree which other schemes should be considered in tandem with this application with you.

Trip distribution

The TA adopts a gravity model to distribute the light vehicle distribution trips, based on 2011 Census data. This is considered to be an appropriate approach.

Heavy vehicle development trips are distributed via a gravity model, derived using recorded HGV flows on strategic links derived from DfT count data, including points on the A534 in Holt and on the A483 to the north and south of Gresford Interchange. To assess the accuracy of this approach it is suggested that a sensitivity comparison is undertaken to compare HGV link volume flows against the turning proportions of HGVs at the key junctions, such as the A534/Industrial Estate Road junction and the A483 Gresford Interchange, in order to validate the gravity model.

Traffic Impact Assessment

The assessment indicates that the junctions with the greatest percentage traffic impacts will be on:

1. The Very Group Site Access/Bryn Lane,
2. Industrial Estate Road/Bryn Lane/Ash Road North/Abenbury Way;
3. A534/Industrial Estate Road/Sandy Lane/Borras Hall Lane.
8. Oak Road/Bryn Lane

The above junctions are forecast to have increases in peak hour traffic of >5% in the 2036 AM and PM peaks; however the following junctions will also see increases of more than 100 two-way trips in the AM or PM peak hours:

4. A534/A5156/A534 Holt Road
5. A5156/Borras Park Road
6. Gresford Interchange

Junction assessments

The junction assessments indicate that the following junctions will operate above their practical capacity threshold (a Ratio of Flow to Capacity (RFC) of 0.85) in either the AM or PM peak hours across the assessed scenarios:

2. Industrial Estate Road/Bryn Lane/Ash Road North/Abenbury Way

A maximum RFC of 0.87 is forecast in the '2036 without development scenario' in the PM peak hour, increasing to 0.96 in the '2036 with Development' scenario. The Applicant considers that this is due to imbalances in the lane usage on the Abenbury Way approach, which could be mitigated through a simple lining and signing scheme. It is requested that the Applicant provides further information regarding the above suggested scheme. It is however noted that this junction is the subject of a proposed major improvement scheme as part of planning application P/2023/0497 (Utopia City, Land North of Bryn Lane), therefore a suitable mechanism for both developments to contribute towards capacity enhancements at this junction may be more applicable than a proposal to upgrade the junction in isolation from the Utopia City development.

3. A534/Industrial Estate Road/Sandy Lane/Borras Hall Lane.

In the AM peak hour, a maximum RFC of 0.85 is forecast on the Wrexham Road in the '2036 without development scenario', increasing to 0.92 in the '2036 with Development' scenario. In the PM peak hour a maximum RFC of 0.82 is forecast on the Industrial Estate Road in the '2036 without development scenario', increasing to 0.87 in the '2036 with Development' scenario. The Applicant provides no suggested mitigation for this junction.

5. A5156/Borras Park Road

In the AM peak hour, a maximum RFC of 0.97 is forecast on the A5156 (western arm) in the '2036 without development scenario', increasing to 1.01 in the '2036 with Development' scenario. In the PM peak hour a maximum RFC of 0.82 is forecast on the A5156 (eastern arm) in the '2036 without development scenario', increasing to 0.86 in the '2036 with Development' scenario. The Applicant indicates that the junction model is not accurately calibrated on the affected approach, due to a "quirk in the software". No further details have been provided. The applicant provides no suggested mitigation for this junction.

6. Gresford Interchange

The assessment indicates that the junction will operate close to its Practical Reserve Capacity (PRC) in the 2022 observed base in the AM peak hour and will deteriorate in the future year scenarios. The PRC will reduce from -8.6% in the 2036 without development scenario to -11.8 PRC in the 2036 with development scenario, indicating a worsening of performance and an increase in delay. The Applicant indicates that through cycle time changes and signal optimisation, the junction could return to 'without development' scenario levels of PRC in the AM peak hour, but would continue to operate over capacity.

Crashmap history:

We have reviewed the last 5 year Crashmap records (see below extract from the TA), and note that the potential increased HGV traffic along Bryn Lane and it's junctions warrants particular consideration and review, particularly when other additional development is taken into consideration.

3.5.2 Crashmap data covering the last 5 years i.e. 2017 and 2021 (the latest data available) has been reviewed for the local highway network. This includes roads such as Industrial Estate Road, Bryn Lane and Oak Road. The extent of the accident study area is shown in Image 3.2 below.

Image 3.2: Accident Study Area



Active Travel

We recommend the applicant coordinates directly with Gwen Thomas, WCBC's Active Travel lead to review a series of active travel improvements considered necessary to facilitate the anticipated growth within the Wrexham Industrial Estate. We are currently finalising a scheme that will result in apportionment of the active travel improvement costs proportionally amongst the current applications. This includes both cycle & pedestrian way improvements, and supporting the increase in additional bus routes and increased frequency until their use gains momentum.

The outcome of this exercise will result in the request for a commuted sum implemented via a Section 106 agreement towards these proposed improvements.

In the absence of the above exercise being completed in time for this application to be determined, the main active travel improvements relevant to this application would be the provision of combined cycle and pedestrian access along Bryn Lane and a contribution towards improved bus services to the site for a defined period whilst their use and viability gains momentum

Streetlighting: The Applicant should engage with paul.rogers@wrexham.gov.uk regarding street lighting improvements at the junction, which would form part of any S278 works.

Summary

In summary, the TA concludes that a number of junctions are forecast to operate above their practical capacity thresholds as a result of the proposed development, or will be exacerbated by the proposed development, based on the assessment presented. In the majority of locations, no mitigation is proposed.

However, this note has previously identified potential underestimations with respect to background traffic growth/committed development and development trip generation. It was previously advised by MM in correspondence with the applicant that:

"some sensitivity testing may be needed if/when the Developer shows that any of the junctions assessed are close to, or over capacity, with or without development to enable WCBC Highways to be comfortable in any comments they make on the formal application."

It is considered that the Applicant should work with WCBC to develop an appropriate sensitivity test or revised assessments, in conjunction with the applicants of other live planning applications within the industrial estate to understand the cumulative impacts of the developments and any required mitigation measures.

Early direct engagement with Active Travel to agree the detailing of active travel improvements is also imperative.

In summary, there are no objections to the principle of development from a highway perspective, however there is further work to be done prior to being able to confirm adequacy of the existing network, the need and extent of any junction improvements, and Active Travel improvements. We suggest a meeting with the applicant's highways consultant would be worthwhile to review the above, but also to discuss surface water drainage/SAB proposal to ensure the solution is robust to avoid any increased risk of flooding along the B5130 (The approval of WCBC's SAB officer will be required for this)



Chief Officer, Environment & Technical