

Project:	Planning application P/2019/0005 – Land south of Holt Road Wrexham		
Our reference:	413341-07	Your reference:	P/2019/0005
Prepared by:	Claudia Currie	Date:	24 April 2020
Approved by:	Sion Williams	Checked by:	Wyn Davies
Subject:	Review of Transport Assessment Addendum		

1 Expert Witness Qualifications and Expertise

I have over 30 years' experience of transport planning across a wide range of transportation commissions within the field of civil engineering across Wales, the UK regions and overseas. I have successfully delivered transport planning services to the Welsh Government, Highways England, Local Authorities and private sector clients throughout the UK and overseas. I have completed transport assessments for major public and private developments, major highway and improvement schemes. I have carried out collision investigations and Road Safety Audit, developed sustainable travel initiatives including; safe routes to school, cycle feasibility assessments, traffic calming measures and parking strategies. I have considerable experience in scheme appraisal from objective setting through to final environment and economic evaluation. I have delivered schemes through Public Inquiry, Draft Consent Order Examinations, Oral Hearings and Appeals as the Transport Planning, Traffic and Economic Expert Witness. I have considerable experience as a project and bid manager with a proven ability of effectively managing projects and major tenders requiring multi-disciplinary team input.

Qualifications: • Institution Membership FCIHT FICE FCILT FCMI PIEMA • Chartered Transport Planning Professional • Chartered Engineer	• PGDip Environmental Decision Making • MSc Highway Engineering and Transport Planning • Lead Auditor • Prince 2 Project Management (Practitioner)
Key skills: • Transport Assessment • Appraisal of Trunk Road Schemes • Strategic Modelling • Microsimulation • Traffic Management Plans • Active Travel • EIA Assessment (traffic/noise/air quality) • Collision Investigation • Road Safety Audit	• Road Safety Engineering • Data Collection • WelTAG Appraisal • Travel Plans • Stakeholder Engagement • Public Consultation • Public Inquiry Expert Witness • Project Management • Third Party Audit

2 Planning application P/2019/0005. Outline application for the erection of 600 dwellings on land south of Holt Road Wrexham

I have been asked to review the Transport Assessment Addendum submitted in respect of the above application and to provide advice to the Wrexham County Borough Council Development Management Team in respect of the conclusions reached and the mitigation measures proposed by the developers.

Documents Reviewed:

Original Transport Assessment (TA)

Original TA (CBO-0322-012 Issue 2, Dec 2018) provided an assessment of the traffic impacts and proposed mitigation with respect to the Planning Application (P/2019/0005) for the KSS2 Northern Section only using the ARCADY roundabout assessment of the JUNCTIONS9 software for individual junctions.

Transport Assessment Addendum

TA Addendum used VISSIM microsimulation modelling (CBO-0322-015_2, Jan 2020) reported on the further assessment work undertaken on the wider allocation of KSS2 (Residential) and KSS3 (Employment).

Local Model Validation Report

The Local Model Validation Report (October 2018) for the Vectos Microsimulation modelling was also examined as part of this review.

VISSIM Modelling

VISSIM modelling undertaken by Vectos, making use of the original Wrexham KSS2 VISSIM Base Model (2018) constructed by ITP for Wrexham County Borough Council (WCBC) as reported in the Local Model Validation Report (LMVR, October 2018), which was also examined as part of this review.

- Base Model: Vectos refinements to ITP Base Model were **appropriate** and provided an improved validation and representation of the observed base situation. The extent of model was agreed previously with WCBC and is **satisfactory**.
- Trip Generation: while I am not completely convinced by the methodology used regarding the adjustments made to the TEMPro growth rates in combination with the development trips the overall trip generation rates for AM 11% and PM 23% they are **acceptable** for an assessment of the core growth scenario.
- Buildout Rates: The assumed build out rates for KSS2 are 710 dwellings by 2023 and fully built out with 1680 dwellings by 2028 and for KSS3 it has 500 jobs by 2023 and 1000 by 2028.
- Scenario Testing: The Commission on Travel Demand recommend that a “range of scenarios should be considered”. For this assessment no other growth scenarios have been considered, omitting what could be considered the worst case or high growth scenario if the TEMPro rates were not adjusted and other large development sites were included. However, given the ongoing Coronavirus situation and the subsequent impact on future growth the scenario modelled is a **reasonable** and **robust** basis for this assessment.
- Trip Distribution: **acceptable** – based upon Census Journey to Work and existing traffic counts.

- Future Year Modelling: Do Minimum (DM - additional traffic with no mitigation) and Do Something (DS - additional traffic with proposed mitigation) scenarios are logical and **acceptable** showing forecast additional delay and queues as expected.

Mitigation

Proposed infrastructure improvements.

- 2023 – including site access via new 5th arm of A5156/A534/Stryt Holt Roundabout
 - A5156/A534/Stryt Holt/Site Access: widening of A534 westbound approach to 3 lanes (100m) & 3 lanes of southern section of circulatory carriageway
 - A534/Borras Hall Lane/Wrexham Road/Industrial Estate Road/Sandy Lane: partial signalisation of 3 arms (A534, Wrexham Road, Industrial Estate Road)
 - Link Road: connecting northern (A5156/A534) and southern (Cefn Road) site access – dependent upon occupation of dwellings as per Statement of Common Ground.
- 2028 – including site access via new 5th arm of A5156/A534/Stryt Holt Roundabout
 - A5156/A534/Stryt Holt/Site Access: signalisation and widening of A534 westbound and A5156 southbound approaches to 3 lanes (100m) & 3 lanes with spiral markings on circulatory carriageway
 - A534/Borras Hall Lane/Wrexham Road/Industrial Estate Road/Sandy Lane: partial signalisation of 3 arms (A534, Wrexham Road, Industrial Estate Road)
 - Link Road: connecting northern (A5156/A534) and southern (Cefn Road) site access – dependent upon occupation of dwellings as per Statement of Common Ground.

After examination of the DM and DS modelling results these **mitigation proposals are satisfactory**, but with **the following suggested additions** to deal with the modelled delay at the Greyhound roundabout (notwithstanding the provision of the Link Road) and on the A5156 at the A5156/A534/Stryt Holt/Site Access junction:

- 2023
 - A5156/A534/Stryt Holt/Site Access - widening of A5156 southbound approaches to 3 lanes (100m) & 3 lanes of associated sections of circulatory carriageway
 - Greyhound Roundabout: Introduce additional flare length Cen Road and Holt Street North arms – could be implemented at the same time as the proposed improvements to the crossing facilities at this junction.

3 Conclusion

In conclusion, the TA Addendum for the KSS2 planning application, provides an assessment of the incremental impacts of the wider development proposals and provides a sufficiently sound evidence to allow for the proposed developments with the highway mitigation measures proposed by the developer. However, it is recommended that additional mitigation measures at the Greyhound and A5156/A534/Stryt Holt/Site Access roundabouts are considered for future implementation. The timing of the mitigation measures, particularly the Link Road, will be open to adjustment if the planned build out rates change in the future.

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