
Project:	Ysgol Y Deri Expansion	Job No:	60629450
Subject:	Response to Highways Comments on TA (March 2022)		
Prepared by:	Ben Burton (Consultant)	Date:	05/09/2022
Checked by:	Spiro Panagi (Associate Director)	Date:	09/09/2022
Approved by:	Spiro Panagi (Associate Director)	Date:	09/09/2022

Introduction

This Note has been prepared in response to comments received from Vale of Glamorgan (VoG) Highways in relation to the Transport Assessment (TA) submitted in March 2022.

This Note concerns itself with the provision of information to address the following comment, relating to the traffic impact assessment and associated junction modelling contained within Chapter six of the TA:

“The Transport Assessment Section 6.3 has provided modelling of the junction of Fort Road/B4267 Lavernock Road however, the Peak times used are outside of the school peak times therefore unrepresentative of the traffic implications at this junction. Revised modelling will need to be provided as the main highway concern is vehicle stacking in the PM when exiting Fort Road onto Lavernock Road.”

VoG Highways has identified the potential for vehicle stacking on Fort Road during school peak times as a concern. The decision to take access from Fort Road is one instructed upon the application the masterplan by VoG Highways. The original proposals sought direct access to the B4267 Lavernock Road, a distributor route and any stacking or waiting would therefore occur within the site.

Notwithstanding the background context on the access strategy associated with the site, this Note will provide additional information to ameliorate any outstanding concerns held by the Highway Authority. The TA does not include a quantitative assessment of the school peak period. The TA did however consider the school PM peak in the context of the networks peaks and this will be set out later in this note.

Pre-Application Scoping

The pre-application Scoping Note, dated November 2020, clearly sets out the methodology by which the traffic impact assessment would be carried out in the TA. This includes identification of peak hours for assessment, which consisted of 07:45 – 08:45 for the AM peak hour and 16:30 – 17:30 for the PM peak hour. It is also stated within the Scoping Note that pupil traffic generation during the school peak will be presented and discussed in terms of the likely effect during the pick-up period.

Transport Assessment (March 2022)

Since the production of the Scoping Note in November 2020, an further iteration of the TA was produced in March 2022, which assessed access being taken from Fort Road, as instructed by VoG Highways.

To demonstrate that the access strategy was designed appropriately in terms of capacity, junction modelling was carried out for the Fort Road / B4267 Lavernock Road junction. This considered the assessment of the AM and PM peaks, as per the original Scoping Note Methodology.

In addition to the junction capacity analysis, further consideration was given to the traffic impact during the school departure period, or the ‘school PM peak’. This was set out in Section 6.5. In this consideration,

it was acknowledged that pupil departures are assumed to occur between 15:00 and 16:00, which is identified to be outside of the local network PM peak hour.

A comparison analysis was carried out detailing the forecasted pupil movements (74 two-way movements) during the school departure period, to the staff-related movements (80 two-way movements) during the network PM peak hour.

The TA therefore concluded that the level of development impact during the school departure period (15:00-16:00) will be well within what was reported during the network PM peak hour assessment, which itself was demonstrated to be low and unlikely to result in a material worsening of junction or highway operation.

Traffic Impact Assessment

Whilst it is considered that the TA adequacy addressed the issue that has been raised on the impact of the school departure period. Further analysis has been carried out to support the Highway Authority audit and to allow it to be concluded that there are no capacity issues at the school departure peak period.

The traffic surveys commissioned by AECOM in February 2022 were carried out between 14:00 and 18:30, encompassing the school pupil departure period, and thus allowing for an assessment of the school PM peak.

An assessment of the impacts at the Fort Road / B4267 Lavernock Road junction during the school departure period occurring at 1500 to 1600, has been undertaken and is presented below in **Table 1**. This has been assessed with the 74 two way movements identified to be associated with the pupil departures at that time.

The junction capacity assessments have been carried out in the same way as the AM and PM peak periods with the addition of a newly calculated traffic flow matrix.

The results of the junction modelling for the AM (07:45-08:45) and PM (16:30-17:30) peaks, as presented in the March 2022 TA, have included for comparison.

Table 1: Junction Modelling Results – B4267 Lavernock Road / Fort Road

Scenario	Arm	AM (07:45-08:45)		PM (16:30-17:30)		School PM (15:00-16:00)	
		RFC	Queue (PCUs)	RFC	Queue (PCUs)	RFC	Queue (PCUs)
2022 Base	Stream B-C	0.01	0	0.02	0	0.03	0
	Stream B-A	0.05	0	0.06	1	0.05	1
	Stream C-AB	0.01	0	0.02	0	0.02	0
2023 Base	Stream B-C	0.01	0	0.02	0	0.03	0
	Stream B-A	0.05	1	0.06	1	0.05	1
	Stream C-AB	0.01	0	0.02	0	0.02	0
2023 Base + Development	Stream B-C	0.08	1	0.14	1	0.11	1
	Stream B-A	0.08	1	0.22	1	0.08	1
	Stream C-AB	0.16	1	0.02	0	0.09	1

Note: Stream B-C = Flows from Fort Rd to B4267 Lavernock Rd S; Stream B-A = Flows from Fort Rd to B4267 Lavernock Rd N; Stream C-AB = Ahead / Right movements from Lavernock Rd S. Queues are rounded up to the nearest PCU.

It can be concluded from review of the outputs presented in **Table 1** that there are no capacity issues to report. The assessment outputs demonstrate that the introduction of development traffic does not have a significant effect on the operation of the Fort Road / B4267 Lavernock Road Junction. The conclusions of the TA remain unchanged following the detailed assessment of the school departure period.

Technical Note



The information presented and the assessments which have been carried out for the purpose of preparing this note are considered to be adequate to address the query raised by the Highway Authority. It is reasonable to conclude that there are no traffic or capacity related issues to be addressed in the consideration of the suitability of the proposals.