

**TRANSPORT ASSESSMENT
VOLUME 2
PROPOSED McDONALD'S RESTAURANT
LAND AT PLAS COCH RETAIL PARK
WREXHAM
LL11 2BW**

APPLICATION REF: P/2019/0919

REPORT CONTROL

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This report is completed on 14/12/20 during the Coronavirus Pandemic.

During this period the Welsh Government encourages all those who can, to stay at home. Travel restrictions are being lifted, however use of public transport remains for essential journeys only:

- *Work if you cannot work from home*
- *To get essential food or medical supplies*
- *To support someone who is vulnerable, if no-one else can do so*
- *For daily exercise*

The overall recommendation is to consider if your journey is really necessary and to try to reduce your travel.

It is recognised and acknowledged that the Covid-19 virus and the predicted severe recession will have an impact on travel patterns and behaviour in the foreseeable future. However, this has not yet been able to be quantified.

Every effort has been made in the preparation of this report to present the factual information (which was largely collected or prepared pre virus) as accurately as possible and draw conclusions based on these facts. Revisions and updates of the report may be required in the future in light of changing circumstances, planning advice and Government guidance.

Recommended travel options, may be reviewed prior to implementation in light of the then current Government guidance or other pertaining circumstances.

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1.0 INTRODUCTION

1.1 Purpose of Report

1.1.1 ADL Traffic and Highways Engineering Ltd have been appointed by McDonald's Restaurants Ltd to prepare this Transport Assessment Volume 2 (TA) in support of the planning application for the redevelopment of land at Plas Coch Retail Park, Wrexham, to provide a McDonald's Restaurant with drive thru facility.

1.1.2 This report has been prepared in response to and to address highway and transportation matters which have been raised by Wrexham Highway Authority through the consultation on the planning application.

1.1.3 This report concludes that there is no reasonable or justifiable transportation basis for the refusal of this planning application.

1.2 Planning History

1.2.1 Planning application ref. P/2019/0919 was submitted to Wrexham Council on 12 December 2019 for the proposed restaurant.

1.2.2 Highways pre-application advice was provided by Wrexham Council (Highway Authority) on 3rd April 2019 and the main issues which were raised by the Highway Authority were:

- 1) Access:
The traffic impact on the network.
- 2) Parking Provision:
The proposed parking demand and provision.
- 3) Servicing:
Details of the proposed servicing arrangements.

1.2.3 These issues were covered in detail in ADL's December 2019 Transport Assessment (ref: ADL/CC/4171/11A), which was submitted with the planning application. This is referred to hereafter as "The December TA".

1.2.4 Following the submission of the planning application, a Memorandum (hereafter “Memorandum 1”) was provided from the Chief Officer of Wrexham Council Environment & Technical dated 24 January 2020. A copy is provided as Appendix 1.1. These covered a number of matters including:

- Access
- Parking provision
- Vehicle headlight glare
- Deliveries
- Committed development and traffic generation
- Pedestrian crossing facilities
- Accident data

1.2.5 The Highway Authority also noted that if the proposals were permitted, a Delivery Management Plan would be needed and the Construction Management Plan would need to be updated.

1.2.6 An emailed response was submitted from ADL to the Highway Authority dated 13 February 2020, providing clarification and further information. A copy is provided as Appendix 1.2.

1.2.7 A further memorandum (hereafter “Memorandum 2”) was received from the Highway Authority dated 27 February 2020 and this is provided as Appendix 1.3.

1.2.8 This Volume 2 Transport Assessment has been prepared to address the points raised by the Highway Authority as well as outline minor changes to the scheme which have occurred since the original planning application was submitted.

1.3 Scope of Study

1.3.1 This report is provided as a Volume 2 Transport Assessment and repetition of information in the December 2019 TA has been minimised where possible. The remainder of this report is set out as follows.

- 1.3.2 Chapter 2.0 provides a review of the 2019 and 2020 traffic survey data and peak hours on the network. An update is provided of the accident statistics and other existing and permitted McDonald's restaurants.
- 1.3.3 Chapter 3.0 provides details of the committed developments and how these relate to the expected growth of traffic in Wrexham. Details are also provided of highway improvements proposed by the Welsh Government.
- 1.3.4 Chapter 4.0 describes the updated development proposals and provides an assessment of the access arrangements, parking provision and servicing/refuse collection arrangements.
- 1.3.5 Chapter 5.0 reviews the McDonald's survey information and traffic generation provided within the December TA and provides further justification as to why McDonald's Chirk is not comparable to the proposed development.
- 1.3.6 Chapter 6.0 provides an assessment of the traffic impact of the restaurant on the local road network. This includes; the Plas Coch Roundabouts, Berse Road Roundabout, A483 Roundabout and Stansty Road/New Road junction.
- 1.3.7 Chapter 7.0 presents the findings of the Stage 1 Road Safety Audit and reviews the requirement for highway improvements. Mechanisms for delivering these improvements are suggested.
- 1.3.8 Chapter 8.0 provides a summary of the additional reports supplied with this application.
- 1.3.9 Chapter 9.0 reviews the basis of the Highway Objection raised by Wrexham Highway Authority and demonstrates that there is no justifiable or reasonable basis for these objections and all matters have been addressed.
- 1.3.10 Chapter 10.0 provides the summary and conclusions.
- 1.3.11 Appendices are included at the rear of this report.

2.0 BASELINE TRANSPORT INFORMATION

2.1 May 2019 Surveys

2.1.1 As detailed in the December TA, ADL appointed Axiom Traffic Ltd to undertake manual traffic counts of the Retail Park Roundabout and the Plas Coch Road Roundabout.

2.1.2 Axiom also undertook a parking beat survey of the Argos/Iceland/Range car park in 15-minute intervals.

2.1.3 Enumerators visited the site to undertake the surveys during the neutral month of May 2019 on Friday 17th 07:00 – 10:00 and 16:00 – 19:00 hours and Saturday 18th 11:00 – 15:00 hours.

2.1.4 The analysis demonstrated that the network peak hours through the Plas Coch Roundabout were:

- Friday AM 09:00-10:00 hours 1931 vehicles
- Friday PM 16:00-17:00 hours 2484 vehicles
- Saturday 12:00-13:00 hours 2752 vehicles

2.1.5 Advice is provided with regard to conducting traffic surveys in TAG Unit M1.2 “Data Sources and Surveys” (May 2020) at section 3.3, noting at paragraphs 3.3.6 and 3.3.7 that:

“Surveys should typically be carried out during a ‘neutral’, or representative, month avoiding main and local holiday periods, local school holidays and half terms, and other abnormal traffic periods. However, there can be instances where a particular period (e.g. weekends or school holidays) is of interest, for example in regions with relatively high levels of seasonal tourism. The period for the surveys should be selected with careful consideration of the purpose of the transport model.

Neutral periods are defined as Mondays to Thursdays from March through to November (excluding August), provided adequate lighting is available, and avoiding the weeks before/after Easter, the Thursday before and all of the week of a bank holiday, and the school holidays. Surveys may be carried out outside of these days/months, ensuring that the conditions being surveyed (e.g. traffic flow) are representative of the transport condition being analysed/modelled.”

2.1.6 The surveys conducted by ADL have been undertaken for a weekday (Friday) and weekend (Saturday) to coincide with McDonald's typical peak trading periods of a Friday evening and Saturday lunchtime. The timing of the surveys was therefore carefully considered for the purposes of assessing the restaurant during 'normal' conditions.

2.1.7 The surveys conducted by ADL are therefore in accordance with the DfT guidance and there is no reasonable or justifiable basis as to why they are not representative of normal traffic and trading conditions at the Retail Park.

2.1.8 Since the 2019 surveys have been conducted the Covid-19 pandemic has occurred. This has resulted in a significant shift to online shopping. Therefore the survey results of the Retail Park are likely to be robust compared to the current and expected future situation with the growth of online sales at the expense of instore transactions.

2.2 March 2020 Surveys

2.2.1 Additional traffic and queue surveys were undertaken by Axiom Traffic on Friday 13th and Saturday 14th March 2020, prior to the United Kingdom entering lockdown as a result of Covid 19 on Friday 20th March 2020. The Berse Road Roundabout and A483 Junction 5 Roundabout were counted for the Friday AM (07:00-10:00 hours), Friday PM (16:00-19:00 hours) and Saturday peak (11:00-15:00 hours) periods.

2.2.2 The March 2020 peak hour traffic flows at the Berse Roundabout have been calculated in Table 2A below.

The peak hours were:

- | | | | |
|---|----------------|-------------------|---------------|
| • | Friday AM Peak | 08:00-09:00 hours | 3765 vehicles |
| • | Friday PM Peak | 16:00-17:00 hours | 4319 vehicles |
| • | Saturday Peak | 12:00-13:00 hours | 3814 vehicles |

2.2.3 In order to ensure the validity of the March 2020 surveys of the Berse Roundabout, ADL have undertaken a comparison exercise with the June 2019 survey data taken from the Focus TA (December 2019). The Focus TA was prepared in support of residential application on Mold Road (reference P/0291/0923). Table 2A provides a summary of the Friday peak hours from the Focus TA and compares these against the peak traffic from the March 2020 surveys. This is based upon the sum of all entry movements into the Berse Road Roundabout.

Table 2A Survey Comparison: Berse Road Roundabout

	Focus TA Peak Hours	P/2019/0923 June 2019 Surveys Traffic	ADL Peak Hours	ADL March 2020 Surveys Traffic	Difference in Traffic
AM Peak	07:45-08:45	3522	08:00-09:00	3765	+243
PM Peak	16:45-17:45	4193	16:00-17:00	4319	+126

2.2.4 It is expected that there would be some daily variation in peak hour timings, what is important is that the traffic volumes assessed are representative of 'peak' conditions. It has been clearly demonstrated that the peak hour flows in March 2020 are higher when compared to the 2019 peak traffic and are therefore considered to form a valid and robust basis for the assessment. The 2020 surveyed traffic flows are shown on the diagrams in Appendix 2.0.

Queue Surveys

2.2.5 Queue surveys were also undertaken of the Berse Road Roundabout. These recorded the minimum, maximum and average queue at the Berse Road Roundabout. On the signalised arms, the number of times the queue completely cleared on a green signal during the hour of the survey was also noted. On the non signalised arm the minimum and maximum queue in each 5 minute interval was recorded.

2.2.6 Summaries of the queue surveys are shown in Tables 2B-2D for the time peak hours. Although there is queuing at the Berse Road Roundabout during the peak periods the surveys show that the queues clear for the vast majority of cycles.

Table 2B Queue Survey Results Berse Road Roundabout: AM Peak

	Mold Road (NW)			Mold Road (SE)			Plas Coch Rd (NE)			B5101 (SW)			
	Lane			Lane			Lane			Lane			
	1	2	3	1	2	3	1	2	3	1	2	3	4
Min Q	0	0	1	0	0	0	0	0	0	0	0	0	0
Max Q	12	12	14	8	9	8	4	7	6	4	9	18+	4
Ave Q	4	5	7	2	3	1	1	5	3	0	2	6	1
Cleared	58/58	57/58	58/58	56/56	55/56	56/56	58/58	58/58	58/58	-	-	-	-

Table 2C Queue Survey Results Berse Road Roundabout: PM Peak

	Mold Road (NW)			Mold Road (SE)			Plas Coch Rd (NE)			B5101 (SW)			
	Lane			Lane			Lane			Lane			
	1	2	3	1	2	3	1	2	3	1	2	3	4
Min Q	1	0	0	0	0	0	0	0	0	0	0	0	0
Max Q	14	10	8	20	25	7	6	13	13	4	20+	20+	3
Ave Q	6	4	4	6	8	2	2	7	4	1	9	4	1
Cleared	58/58	58/58	58/58	51/58	48/58	58/58	59/59	59/59	59/59	-	-	-	-

Table 2D Queue Survey Results Berse Road Roundabout: Saturday Peak

	Mold Road (NW)			Mold Road (SE)			Plas Coch Rd (NE)			B5101 (SW)			
	Lane			Lane			Lane			Lane			
	1	2	3	1	2	3	1	2	3	1	2	3	4
Min Q	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Q	10	10	11	7	9	8	5	12	6	2	5	15	3
Ave Q	5	3	3	3	4	3	2	5	3	1	2	4	1
Cleared	64/64	64/64	64/64	64/64	64/64	64/64	64/64	64/64	64/64	-	-	-	-

2.3 Peak Hours

2.3.1 The peak hours recorded in ADL's 2019 and 2020 surveys are noted in Table 2E for the three roundabout junctions which have been assessed in detail.

Table 2E Roundabout Peak Hours

	Retail Park & Plas Coch Roundabouts	Berse Road Roundabout
Weekday AM Peak	09:00-10:00 hours	08:00-09:00 hours
Weekday PM Peak	16:00-17:00 hours	16:00-17:00 hours
Saturday Peak	12:00-13:00 hours	12:00-13:00 hours

2.3.2 As shown, the peak hours match for both the weekday PM peak and Saturday periods, however, during the AM period, the Berse Road peak occurs an hour earlier than the Plas Coch and Retail Park peak. It is surmised that the Berse Road roundabout morning peak is earlier due to the majority of trips passing through being related to commuting to a place of work or education for an 09:00 hours start, whilst the Plas Coch and Retail Park roundabouts are influenced more by the arrival of shoppers seeking to visit the supermarket within the retail park slightly later than the commuting peak.

2.3.3 For the purposes of providing a robust assessment the peak traffic flows for each set of junctions has been assessed as the 'peak situation'. This therefore means that the worst case traffic has been assessed during the morning peak period.

2.4 Accident Data

- 2.4.1 The Council requested in Memorandum 1, that the area covered by the accident data search was broadened to cover Plas Coch Road and the Berse Road Roundabout.
- 2.4.2 ADL have obtained details of personal injury traffic accident data from North Wales Police and Crashmap for a 60-month period (5 years) covering 28/02/2015 to 29/02/2020. The accident search area covered the Retail Park Access Roundabout, the Plas Coch Road Roundabout, Berse Road Roundabout and the connecting links between them. A plan showing the accident locations and the accident details are included in Appendix 3.0.
- 2.4.3 In total there were 14 personal injury accidents that occurred within the study area, of which three were classified as serious and 11 were slight. Table 2F is provided below and summarises the accidents that have occurred at the Retail Park Roundabout, Plas Coch Roundabout and Plas Coch Road.

Table 2F Accident Summary: Plas Coch Road/Retail Park Roundabout

ADL Ref:	Location	Date	Time	Light Conditions	Severity	Summary of Details
2	Plas Coch Roundabout	19/06/2015	16:30	Daylight	Slight	Vehicle 2 (pedal cycle) was hit in the rear by Vehicle 1 (car) while entering the roundabout.
3	Plas Coch Roundabout	20/08/2015	20:40	Darkness: Street lights present but unlit	Slight	Vehicle 1 (car) was in the act of turning right and hit the rear of Vehicle 2 (car) which subsequently rear-ended Vehicle 3 (car).
5	Plas Coch Road Roundabout	10/08/2016	07:41	Daylight	Serious	Vehicle 1 (car) was on the Plas Coch Roundabout travelling towards the Berse Roundabout when Vehicle 2 (car) pulled out in front of Vehicle 1.
7	Plas Coch Road	18/07/2017	18:40	Daylight	Slight	Vehicle 1 (car) and Vehicle 2 (car) were travelling in the same direction towards the Berse Road Roundabout. Driver of Vehicle 1 had a medical incident and rolled backwards into Vehicle 2.
9	Retail Park Roundabout	28/09/2017	18:56	Daylight	Slight	Vehicle 2 (car) was entering Plas Coch Retail Park when Vehicle 2 (car) came at speed and collided with Vehicle 2 on the roundabout. Vehicle 1 failed to stop.
10	Plas Coch Road Roundabout	30/11/2017	14:20	Daylight	Slight	Vehicle 1 (car) has rear ended Vehicle 2 (car) on exit of the roundabout with enough force to Vehicle 2 to flip onto its roof.
14	Plas Coch Road	07/08/2018	22:01	Darkness, street lights present but unlit	Serious	A group of pedestrians were crossing Plas Coch Road and were masked by stationary vehicles and street lights were unlit, causing Vehicle 1 (car) to hit two of the pedestrians.

2.4.4 Table 2F demonstrates that there were four injury accidents that occurred on Plas Coch Roundabout (Nos 2, 3, 5 and 10). One accident occurred on the Retail Park Roundabout (№ 9) and two occurred on Plas Coch Road (Nos 7 and 14). Of the seven injury accidents that occurred two were classified as serious and the remainder were slight.

2.4.5 Of the accidents that occurred, one slight injury accident (№ 2) involved a pedal cycle and one serious injury accident involved a group of pedestrians (№ 14). The accident involving pedestrians was a result of stationary vehicles masking the pedestrians crossing Plas Coch Road approximately 40m south of the Plas Coch Roundabout. The accident data reports that it was dark but the street lighting was not lit. No other factors were provided. The accident involving a pedal cycle was a result of a rear end shunt and occurred on the Plas Coch Road Roundabout.

2.4.6 The remaining accidents which occurred comprise of two accidents which likely occurred due to excessive speed (Nos 9 and 10), one due to the driver having a medical incident (No 7), one rear end shunt (No 3) and one failure to give way (No 5). There is no pattern or clustering apparent with these accidents.

2.4.7 Table 2G is provided below and shows a summary of the accidents which have occurred at the Berse Road Roundabout.

Table 2G Accident Summary: Berse Road

ADL Ref:	Location	Date	Time	Light Conditions	Severity	Summary of Details
1	Berse Rd Roundabout	06/03/2015	12:15	Daylight	Slight	Vehicle 1 (car) rear-ended Vehicle 2 (car) which was held up at the roundabout.
4	Berse Road Roundabout	01/08/2016	17:42	Daylight	Serious	Vehicle 2 (motorcycle) was travelling around the roundabout when Vehicle 1 (car) pulled out in front of the motorcycle causing the collision.
6	Berse Road	10/04/2017	16:30	Daylight	Slight	Vehicle 2 (car) had stopped at the box junction and Vehicle 1 (motorcycle) has rear ended Vehicle 2.
8	Berse Road Roundabout	22/08/2017	18:30	Daylight	Slight	Vehicle 1 (car) was travelling along Mold Road towards Berse Roundabout and was rear-ended by Vehicle 2 (motorcycle).
11	Berse Road Roundabout	22/12/2017	15:00	Daylight	Slight	Vehicle 2 (motorcycle) was driving on Berse Road Roundabout. Vehicle 1 (car) exited the Berse Road arm into the path of Vehicle 2. Vehicle 1 failed to stop.
12	Berse Road Roundabout	15/03/2018	06:40	Daylight	Slight	Vehicle 2 (car) was rear-shunted by Vehicle 1 (car) when it was waiting to enter the Berse Roundabout.
13	Berse Road Roundabout	02/07/2018	08:07	Daylight	Slight	Vehicle 1 (car) was travelling onto the Berse Road Roundabout and has collided with the nearside curb.

2.4.8 Table 2G shows that there were seven accidents that occurred on Berse Road during the 60-month period. Of the accidents that occurred, one was serious and the remainder were classified as slight. The accidents which have occurred have been mainly rear end shunts (Nos 1, 6, 8 and 12). One serious injury accident (No 4) involved a motorcycle and was a result of driver failing to give way. One accident (No 13) occurred due to a poor manoeuvre.

2.4.9 The number of accidents recorded over time is summarised in Table 2H below. This demonstrates that the accident rate appears to be reducing, with 3 accidents recorded in 2018 and none in 2019.

Table 2H Summary of Accidents

Severity	From 28.02.2015	2016	2017	2018	2019	Up to 29.02.2020	Total
Serious	0	2	0	1	0	0	3
Slight	3	0	6	2	0	0	11
Total	3	2	6	3	0	0	14

2.4.10 The accident analysis demonstrates no apparent highways safety issue associated with the road network. Given the size of the area analysed and volume of traffic, the number of accidents is considered relatively low. The majority of the accidents which have occurred can also be attributed to driver error.

2.4.11 Notwithstanding the conclusions of this accident analysis, the Highway Authority have raised concerns with regards to pedestrian safety in the vicinity of the site on Plas Coch Road. Details of an independent Road Safety Audit are provided and considered in Chapter 7.0.

2.5 Existing and Permitted McDonald's Restaurants Surrounding Wrexham

2.5.1 There are four existing McDonald's restaurants and two permitted McDonald's restaurants in the area surrounding Wrexham. Details of these restaurants are provided in Table 2I including the driving distance from the proposed site. The store locations are shown on the plan included as Appendix 4.0.

Table 21 Existing and Permitted Restaurants

Existing Restaurants		
1	Name	Wrexham Regent Street
	Store Type	Instore
	Drive Thru	No
	Distance from Site	1.6km (1 mile) in town centre
	Parking Provision	None
2	Name	Chirk
	Store Type	Roadside Restaurant
	Drive Thru	Yes
	Distance from Site	13.5km (8.4 miles) south of Wrexham
	Parking Provision	111 spaces. No shared parking
3	Name	Broughton Park
	Store Type	Retail Park Restaurant
	Drive Thru	Yes
	Distance from Site	20km (12.4 miles) north of Wrexham
	Parking Provision	29 spaces and shared with Retail Park
4	Name	Whitchurch
	Store Type	Roadside Restaurant
	Drive Thru	Yes
	Distance from Site	26.1km (16.2 miles) east of Wrexham
	Parking Provision	45 spaces. No shared parking
Permitted Restaurants		
5	Name	Oswestry
	Store Type	Retail Park
	Distance from Site	26.2km (16.3 miles) south of Wrexham
	Planning Ref:	19/05325/OUT
	Parking Provision	45 spaces. No shared parking
6	Name	Welshpool
	Store Type	Roadside
	Distance from Site	48.4km (30.1 miles) south of Wrexham
	Planning Ref:	19/1611/FUL
	Parking Provision	26 spaces and shared with PFS

2.5.2 The nearest McDonald's restaurant to the site is the existing town centre store in Wrexham, which is expected to continue to serve customers visiting and local to the town centre.

2.5.3 The nearest McDonald's drive thru facility to Wrexham is currently Chirk. This is also currently the nearest McDonald's drive thru facility to Oswestry. There are therefore two large populated areas which have no local drive thru facility. Chirk is situated 13.5km south of Wrexham and 12.7km north of Oswestry. As will be explained in Section 5.2, currently customers are traveling from both Oswestry and Wrexham to use Chirk, resulting in Chirk overtrading.

- 2.5.4 The average parking provision at the 5 drive thru restaurants is 51 spaces. However, Chirk with 111 spaces is clearly anomalous in its parking provision compared to other existing and new restaurants. The average parking demand for the four drive thru restaurants excluding Chirk is 36 spaces. This is similar to that proposed at Plas Coch (29 spaces).
- 2.5.5 It is also demonstrated that where there is shared parking available with an adjacent use at Broughton and Welshpool the level of parking proposed is lower than for those sites which operate on a standalone basis (29 and 26 spaces respectively). These sites also have a similar level of parking to that proposed at Plas Coch (29 spaces).
- 2.5.6 As will be explained further in Section 5.2, Chirk is not an operational situation, or layout in terms of parking, which McDonald's are seeking to replicate and to the contrary they are actively trying to reduce the level of demand at Chirk. The design, layout and operation of the new restaurants which will be coming forward at Oswestry and Welshpool is consistent with that proposed at Wrexham.

3.0 COMMITTED DEVELOPMENT AND BASE TRAFFIC

3.1 Committed and Parallel Development

Introduction

3.1.1 No committed developments were raised by the Highway Authority as requiring assessment as part of the pre-application consultation for the original December 2019 TA. Subsequent to The December TA, in Memorandum 1, the Highway Authority identified five planning applications to be included in the traffic impact assessment of the proposed restaurant. These are summarised in Table 3A. The location of these applications is shown on the plan in Appendix 5.1.

Table 3A Committed & Parallel Developments Identified by Wrexham Council

Planning Ref:	Status	Development
P/2018/0671	Committed	Construction of 410 1 / 2 bed apartments, Plas Coch Road, Wrexham
P/2018/0672	Committed	Erection of 197 student apartments, Crispin Lane, Wrexham
P/2018/0357	Committed	Extension of Plas Coch Public House (24 bed lodge), Plas Coch Retail Park, Wrexham
P/2018/0384	Committed	Drive Thru Coffee Shop, Plas Coch Retail Park, Plas Coch, Wrexham
P/2019/0923	Pending Decision (parallel development but treated as committed for purposes of this report)	Proposed 455 new dwellings on land off Mold Road, Stansty, Wrexham

3.1.2 ADL have reviewed each of these planning applications and the key transportation findings are set out in this chapter.

3.2 University Redevelopment P/2018/0671 and P/2018/0672

3.2.1 Applications for the development of 410 apartments and 197 student apartments were permitted by Planning Committee on the 7th May 2020. The application included supporting transportation documents prepared by Integrated Transport Planning. A Transport Assessment and Travel Plan dated July 2018 and Addendum TA (December 2018) were prepared.

3.2.2 Extracts of the Committee reports for the University Redevelopment applications P/2018/0671 (pages 91-94) and P/2018/0672 (page 107) are provided in Appendix 5.2 and relate to relevant transport matters pertinent to the McDonald's application.

- 3.2.3 The Planning Authority concluded the following with regards to the operation of the Berse Roundabout:

“The applicant’s submissions suggest that the proposed development will not have a significant impact upon the A541 Mold Road / Plas Coch roundabout. Highways have questioned this conclusion...”

...I do not dispute the fact that the A541 Mold Road / Plas Coch roundabout becomes congested at peak hours. It is a key part of the highway network on the main route into the town centre from the A483 trunk road. That said, whilst there is no disputing the fact that the additional development will result in additional vehicle movements on to the highway network, there is no information before me to suggest that the nature of the proposed development will adversely impact upon the operational safety of the roundabout. Simply observing congestion, and concluding that a development will add to that congestion is not, in planning terms, sufficient reason to withhold a planning permission.

(ADL underlining. Source Application P/2018/0671 pg 91)

And that:

“Whilst it is accepted that the increase in density of the site will inevitably result in some increase in traffic movements, I am not convinced that this will result in a detriment to highway safety, but more of an issue for minor inconvenience which will only occur in Wrexham regardless of this proposal as a result of natural population and development growth.

(ADL underlining. Source Application P/2018/0671 page 94)

- 3.2.4 The Planning Authority judgement regarding traffic impact was that although the Berse Road Roundabout would be at or approaching capacity the proposal of additional traffic was not justifiable grounds for refusal.

- 3.2.5 The Planning Authority also concluded the following regarding parking provision and the application of the Council’s parking standards.

...Highways have also raised concern that the development has under provided for car parking provision to an unacceptable level.

Members are reminded that the standards quoted in in LPG16 are maximum standards. They are not intended to be used as a starting point or a minimum level of parking provision.

...It is also located within reasonable walking distance of the town centre and a range of retailing options as well as access to key employment opportunities within Wrexham...

...Where developments are close to local services and facilities and/or are in areas where people are able to walk or cycle to them or travel to them easily by public transport, it may be appropriate for less on site parking to be provided than for developments in remoter areas. In areas where people can easily travel to sites by means other than by car, reducing the amount of space dedicated to car parking could allow land to be used more efficiently by enabling a higher density development...

...In view of the Welsh Government's desires to promote a higher standard of development and to reduce reliance upon car usage, I can see no reason why this development should represent a need to provide a high level of car parking provision. This would apply with its own transport hierarchy which seeks to promote walking and cycling over the use of the car.

(ADL underling. Source Application P/2018/0671 pages 91 and 92)

And that:

"...the Welsh Government require local planning authorities to give serious consideration to reducing reliance on the private car and supporting a modal shift to walking, cycling and public transport."

(Source Application P/2018/0671 page 92)

3.2.6 The Planning Authority judgement with regards to car parking was that in accessible locations parking below the standards is not only acceptable but should be encouraged to promote sustainable travel.

3.2.7 ADL have reviewed the impact of the McDonald's and considered how the judgement of the Planning and Highway Authority should be consistently and fairly applied in Chapter 9.0 of this report.

3.2.8 As this development was permitted in 2019 it is not anticipated that it would be operational in the McDonald's year of opening (2021).

3.3 Extension of Plas Coch Public House P/2018/0357

3.3.1 An application for the extension of the existing Plas Coch public house to provide 24 hotel bedrooms was permitted on 3rd September 2018. The application included a supporting Transport Assessment dated April 2019 prepared by Sanderson Associates.

- 3.3.2 It is assumed that this will be constructed and operational during the 2021 assessment year.

3.4 Drive Thru Coffee Shop P/2018/0384

- 3.4.1 The permitted Costa Coffee unit at the Plas Coch retail park was granted planning permission on 11th May 2018 under application reference P/2018/0384. The coffee shop is planning use class A3 'Food and Drink' and therefore in planning terms is the same as the proposed McDonald's. It would reasonably be expected that the approach of the Highway Authority to this application would be consistent to that required to be undertaken to support the McDonald's application.
- 3.4.2 The coffee shop opened on 2nd August 2019. It was not operational at the time of the May 2019 traffic surveys undertaken for The December TA, so committed development flows were requested for inclusion in this assessment. Given that this traffic will have now been captured in the March 2020 surveys, no assessment of this development is required at the Berse Road Roundabout, however, has been included for completeness.
- 3.4.3 The Costa application included a Transport Assessment dated August 2018, prepared by TTHC. The analysis within the TA was based upon a traffic survey of the Retail Park Roundabout and parking surveys undertaken on 13th January 2018.
- 3.4.4 The Highway Officers comments of 9th July 2019 comments are included in Appendix 5.3. The Highway Authority view on the timing of the January parking surveys was as follows:

"I would normally recommend that any parking surveys are carried out on both a Saturday and a Sunday throughout the day during a neutral monitoring period, typically March, Sept/Oct when traffic is not influenced by Winter or school holidays. However, I assume that the period leading up to Christmas is likely to see the greatest parking demand at the retail park and this ideally when a survey should be carried out. However, as a compromise, I would recommend that an additional parking accumulation survey is carried out in the next couple of weeks on both a Saturday and a Sunday throughout the day."

(ADL underlining)

- 3.4.5 Additional parking survey data was recorded on Saturday 28th and Sunday 29th July 2018 and submitted to the Council. The July 2018 surveys were undertaken during the school summer holidays.
- 3.4.6 The Highway Authority therefore accepted this parking survey data for 'normal trading conditions' and would normally recommend surveys be undertaken in a neutral monitoring period i.e. May.
- 3.4.7 The traffic generation for the Costa Coffee unit was based upon TRICS data for "drive thru fast food" including data recorded at McDonald's, Burger King and KFC outlets. Therefore, permitted trip rates for an A3 food and drink drive thru use at the Plas Coch Retail Park have been previously accepted by the Highway Authority.

3.5 455 Dwellings off Mold Road P/2019/0923

- 3.5.1 Outline planning application P/2019/0923 was received by Wrexham Council on 16th December 2019. The application included a Transport Assessment and Travel Plan prepared by Focus Transport Planning, dated December 2019 and October 2019 respectively. The application is currently pending decision and is therefore parallel development.
- 3.5.2 The Focus Transport Assessment proposes mitigation improvements to the A483 which were agreed in a Welsh Government consultation response dated 31 January 2020. A copy of the proposed changes are provided at Appendix 5.3.
- 3.5.3 The proposal also included changes to the Berse Road Roundabout, and it is understood that these are not yet agreed, therefore ADL's subsequent analysis will be undertaken on the existing layout of the junction.
- 3.5.4 The proposals which the Welsh Government are also putting forward for the A483 Roundabout and Berse Road Roundabout are discussed in Section 3.9.
- 3.5.5 The Focus TA sets out that only 165 units would be complete by 2024, so this development is not expected to be operational in the McDonald's year of opening (2021).

3.6 TEMPRO/NTM Growth Factors

3.6.1 The approach taken in ADL's TA December 2019 for the assessment of future year traffic (including that of potential new developments coming forward) was through the application of TEMPRO/NTM growth rates to the surveyed traffic. The factors used are set out in Table 3B. This is assumed that there would be between 17-19% increase in traffic from 2019 to 2036.

Table 3B TEMPRO/NTM Factors from December TA

	2019 → 2021	2019 → 2026	2019 → 2036
Friday AM peak	1.0242	1.0809	1.1780
Friday PM peak	1.0238	1.0813	1.1799
Saturday peak	1.0246	1.0867	1.1902

3.6.2 These TEMPRO factors include an allowance for the expected level of future housing and employment growth in Wrexham. Therefore, to apply both TEMPRO and committed development traffic is likely to lead to a significant level of double counting, which is not a reasonable basis for undertaking any impact assessment.

3.6.3 As noted in ADL's email of 13th February 2020 (see Appendix 1.2) it noted there are a total of 865 dwellings proposed to be developed in the vicinity of the site (410 on university site and 455 on Mold Road). The TEMPRO assumptions on housing growth in Wrexham areas 003 and 008 is shown in Table 3C below.

Table 3C TEMPRO Development Allowances

Period	Households	Jobs
2020 – 2036	+1121	+509

3.6.4 These allowances effectively cover the traffic generation associated with these elements of committed development in any future year scenarios, as set out in Tables 3D and 3E.

Table 3D Traffic Flows A483 Junction 5 and Mold Road Roundabout 2036

	Junction	2020 Surveyed	Growth Factor	2036 Base	Difference 2020-2036
Am Peak	A483 Junction 5	3552	1.1726	4165	+613
	A541 Mold Road	3765		4415	+650
Pm Peak	A483 Junction 5	4030	1.1747	4734	+704
	A541 Mold Road	4319		5074	+755

Table 3E Committed Development Traffic

	Junction	University redevelopment (P/2018/0671 & 0672)	Pub extension (P/2018/0357)	Drive thru coffee shop (P/2018/0384)	455 Residential dwellings (P/2019/0923)	Total Committed Development
Am Peak	A483 Junction 5	+126	+5	+25	+151	+307
	A541 Mold Road	+189	+5	+29	+42	+265
Pm Peak	A483 Junction 5	+129	+4	+28	+186	+347
	A541 Mold Road	+191	+6	+34	+57	+288

3.6.5 The TEMPPO growth factors therefore include an allowance for other small-scale developments (such as McDonald's) to come forward.

3.6.6 ADL's view is that background levels of growth predicted by TEMPPO are unlikely to now materialise due the Covid-19 pandemic and the likely severe recession. Traffic growth will occur but from developments which are committed (or in the planning system) and likely to be implemented, such as those identified by the Highway Authority. Therefore, the realistic assessment situation is the committed development traffic plus McDonald's without the application of any further background growth from 2021 and this is the basis of our assessment going forward. However, to provide a sensitivity test, a 2036 TEMPPO base has been assessed just using the growth factors which accounts for the situation with all committed development plus growth and then the impact of the McDonald's.

3.7 Committed Development Scenarios for Assessment

3.7.1 The committed development has been assessed as follows:

- 2021 Costa and hotel operating (non residential committed development)
- 2036 All committed development constructed

3.7.2 The committed development weekday traffic flows have been extracted from the Focus TA for all of the committed uses.

3.7.3 Neither of the residential schemes provided Saturday traffic generation data. A review of traffic generation data on TRICS for private housing in edge of town centre and edge of town locations provides the trip rates set out in Table 3F below.

Table 3F TRICS Residential Trip Rates

	Arrivals	Departures	2-way
Weekday AM Peak	0.144	0.394	0.538
Weekday PM Peak	0.355	0.176	0.531
Saturday Peak	0.182	0.222	0.407

3.7.4 As shown, the Saturday two-way flow per dwelling is lower than either weekday peak. The Saturday flows are more balanced with similar rates for arrivals and departure. Relative to the weekday PM peak, the arrival and departure flows differ as follows:

- Inbound: Saturday peak is 52% higher/lower than the weekday PM peak
- Outbound: Saturday peak is 126% higher/lower than the weekday PM peak

3.7.5 As a result the residential committed development flows for the weekday PM peak have been adjusted by the above percentages dependent upon whether they are inbound or outbound flows.

3.7.6 The 2021 and 2036 committed development flows are provided at Appendices 6.1 and 6.2 respectively.

3.8 Base Traffic and Sensitivity Test

3.8.1 The 2021 base flows are included in Appendix 7.0. These are the 2019/2020 surveys growthed to 2021.

3.8.2 The base + committed traffic flows are included in Appendix 8.0. These are:

- 2021 (2021 base + non-residential committed development)
- 2026 (2021 base + all committed development)

3.8.3 The 2036 base flows (TEMPRO sensitivity test) are included in Appendix 9.0. These are the 2019/2020 surveys growth to 2036 using the TEMPRO/NTM growth factors as a worst-case sensitivity test of the baseline traffic situation.

3.9 Proposed Highway Works By Welsh Government

3.9.1 The Welsh Government have closed consultation on 22 November 2020 on highway improvement schemes for the A483 Junctions 3-6. The scheme is included in the Welsh Government National Transport Finance Plan.

3.9.2 The proposals for the A483 Roundabout (Junction 5) and Berse Road Roundabout are included in Figure 3A below.

Figure 3A Welsh Government Proposed Highway Improvements



3.9.3 The proposals include:

- New signalised pedestrian crossing facilities on Plas Coch Road, Mold Road and Berse Road at the Berse Road Roundabout;
- Footway and cycle improvements at the A483 Roundabout.

3.9.4 The works are programmed for detailed design and construction in 2022 and a larger scale extract of the proposals is reproduced at Appendix 10.0

- 3.9.5 Whilst the design of this scheme may be amended by the Welsh Government through the consultation process (including Wrexham Highway Authority) the principle remains that there are likely to be accessibility improvements implemented in the vicinity of the site which would benefit existing users and McDonald's customers.

4.0 DEVELOPMENT PROPOSALS

4.1 Site Layout

- 4.1.1 It is proposed to redevelop the site to provide a two storey McDonald's Restaurant with side-by-side drive thru facilities. The building has been reconfigured since the December TA. The overall floor area would remain at 440sqm (GIA), however, the dining area would be reduced from 97sqm to 91sqm with 95 seats.
- 4.1.2 The reconfigured internal layout of the building now has all public-facing elements at ground floor level. This results in simpler circulation for visitors and all vertical circulation is now excluded from any public floor area.
- 4.1.3 The Architect's site layout is included as Appendix 11.1. Parking bay size and aisle widths have been shown on the layout with bays a minimum of 2.4 x 4.8m and aisles of 6.0m. The ground and first floor layouts of the restaurant are provided at Appendix 11.2.
- 4.1.4 Appendix 11.3 shows an extract of the ground floor plan, identifying the dining area and customer toilets. Whilst available to customers, the toilets are clearly ancillary to the main public area and would not influence the demand for parking (or any other quantifiable factor) at the site.

4.2 Access Arrangements and Highway Works

- 4.2.1 Customer vehicular access to the proposed restaurant would be via the existing Retail Park Access Road which also serves the Argos/Iceland/Range. The drive thru lane would run clockwise around the building with customers exiting back into the McDonald's car park.
- 4.2.2 Pedestrian access to the restaurant would be provided from the Retail Park Access Road and car park. It is proposed to modify the pedestrian link and informal zebra crossing facility from the Retail Park Access Road to the restaurant entrance. This is because the access into the McDonald's site has been altered to accommodate the delivery vehicle. A new pedestrian link into the site would also be provided from Plas Coch Road.

4.2.3 Highway improvements in the vicinity of the site including a pedestrian crossing on proposed on Plas Coch Road. The crossing is shown at Appendix 11.4 and the wider scheme of improvements is shown at Appendix 11.5. These have been designed in response to the Stage 1 Road Safety Audit commissioned by ADL. This is covered subsequently in Chapter 7.0.

4.2.4 It is proposed that any works to the highway would be funded via s106 Agreement as opposed to s278. Further details of this means of securing the works are set out at Chapter 7.0.

4.3 Parking Provision

4.3.1 It is proposed to provide 29 car parking spaces for the McDonald's including 2 accessible parking spaces close to the restaurant and 3 reserve bays for drive thru customers. McDonald's customers would also have rights to park in the Argos/Iceland/Range car park. There would be 6 cycle parking spaces (3 Sheffield stands) for staff and customers located close to the restaurant entrance.

4.3.2 There would be a total of 194 spaces to serve the Argos/Iceland/Range and the McDonald's, as shown on the plan in Appendix 11.6. The overall difference in parking provision compared to the existing situation would be a loss of 41 spaces. The existing 3 hour maximum stay parking restriction (1.5 hours on match days) would apply to the McDonald's car park.

Parking Standards

4.3.3 Wrexham County Borough Council parking standards are maximum and are set out in The Local Planning Guidance Note 16. The public floor space for the restaurant is the 91sqm dining area and 20m² queuing and ordering area, i.e. 111sqm total.

4.3.4 In Memorandum 2, the Council have suggested that toilets and stairwells are valid to assess as public space for the purposes of calculating parking standards, however, as noted in Section 4.1 the public stairs have been removed from the internal layout. The toilets (including lobby) have an overall area of 24.2sqm. ADL have never been requested to consider ancillary space (public or otherwise) in parking calculations, to the extent that the parking standards for Stockport (Unitary Development Plan Review 2006) specifically note that public floor areas exclude toilets.

4.3.5 By applying the standard of 1 space per 4sqm to the 111sqm public floor area this results in a maximum parking requirement of 28 spaces. If the 24.4sqm of toilet area was added, then this would increase the maximum provision to 34 spaces, however, as the standards are maximums, even if the toilet area is included, then the proposed provision would be wholly compliant, by not exceeding the maximum calculated amount.

4.3.6 An assessment of the vehicle parking standards for the Retail Park and McDonald's is provided in Table 4A, based on the permitted floor areas for the Retail Park (see Appendix 1.2) and the 111sqm public floor area for the restaurant.

Table 4A Assessment of Parking Standards

Land Use	Maximum Parking Standard	Development	Maximum Parking Requirement	Proposed Provision
A1 retail	1 space/20sqm gfa	6,033sqm	301	165
A1 food retail	1 space/14sqm gfa	372sqm	27	
Sub-total A1			328	
A3 restaurant	1 car space per 4sqm public floor space	111sqm	28	29
Total			356	194

4.3.7 The maximum parking standard for the development would be 356 spaces. The proposal for 194 spaces is therefore below the maximum parking requirement and accords with the Council's standards. The proposed provision is 54% of the maximum standard.

4.3.8 The cycle parking standard for the McDonald's would be 1 cycle space per 40sqm public floor space. The proposed restaurant would require 2 spaces. It is proposed to provide 6 spaces (3 Sheffield stands) in accordance with the Council's standards.

Parking Demand

4.3.9 The existing car park comprises of 235 parking spaces including; 6 accessible and 4 parent and child spaces.

4.3.10 The results of the parking survey are summarised in Table 4B below:

Table 4B Parking Beat Survey Results Retail Park Car Park

Friday			Saturday		
Time	No	% Occupancy	Time	No	% Occupancy
16:00	68	29%	11:00	82	35%
16:15	64	27%	11:15	83	35%
16:30	63	27%	11:30	108	46%
16:45	65	28%	11:45	120	51%
17:00	58	25%	12:00	127	54%
17:15	39	17%	12:15	116	49%
17:30	51	22%	12:30	112	47%
17:45	53	22%	12:45	113	48%
18:00	44	19%	13:00	110	47%
18:15	42	18%	13:15	113	48%
18:30	46	19%	13:30	138	58%
18:45	43	18%	13:45	137	58%
-	-	-	14:00	128	54%
-	-	-	14:15	119	50%
-	-	-	14:30	118	50%
-	-	-	14:45	135	57%

Note: 235 spaces total existing

4.3.11 Table 4B demonstrates that the peak parking demand was as follows:

- Friday 68 vehicles 29% occupied
- Saturday 138 vehicles 58% occupied

4.3.12 There were therefore 167 spaces available during the Friday peak and 97 spaces available during the Saturday peak.

4.3.13 There would be 194 spaces serving the Argos/Iceland/Range and the McDonald's if the scheme were constructed. The parking impact on the Retail Park car park has been assessed in Table 3C. During the Friday peak the proposed demand would be 90 spaces (46%) with 104 spaces available. During the Saturday peak the proposed demand would be 166 spaces (85%) with 28 spaces available. There is therefore sufficient car parking for both the Argos/Iceland/Range and McDonald's customers during normal trading conditions.

Table 4C Parking Demand Assessment Retail Park Car Park

Proposed Parking Provision for Retail Park and McDonald's		Retail Park Peak Demand	McDonald's Peak Demand	Total Demand		Spaces Available
				No	% occupancy	
194	Friday	78	22	90	46%	104
	Saturday	138	28	166	85%	28

4.3.14 In summary therefore, the proposed parking provision is compliant with the LPG-16 standards, and the surveys of the car parks have shown that the restaurant could be implemented and sufficient parking would remain for visitors to either McDonald's or Argos/Iceland/Range.

4.3.15 As noted in Section 2.1 the recent trend for increased online retail sales is likely to reduce parking demand at the Retail Park and therefore the results in Table 4C are a robust assessment.

4.4 Servicing and Refuse Provision

4.4.1 As covered in detail in the December 2019 TA, restaurants typically receive three deliveries per week. Servicing McDonald's restaurants whilst they are open is a common practice and does not present any operational difficulties.

4.4.2 Updated vehicle TRACKing is provided as Appendix 12.1. The analysis demonstrates that an 11.1m rigid delivery vehicle can enter, manoeuvre around the car park and exit.

4.4.3 ADL have discussed the site with McDonald's logistics partner Martin Brower and they have confirmed that they would service the store overnight 20:00 – 08:00 hours, three times per week.

4.4.4 Refuse would be collected three times per week by a private contractor. A TRACK analysis for a 9.6m refuse vehicle is provided as Appendix 12.2.

4.4.5 A Delivery Management Plan will be submitted with the planning application which contains full details of the servicing arrangements.

4.5 Drive Thru Lane

4.5.1 The drive thru lane forms an integral part of the McDonald's operation is shown adjacent to the eastern and southern edges of the building (see Appendix 11.1). The drive thru lane can accommodate 13 vehicles. The maximum demand from the ADL TA would be 11 vehicles, therefore, the proposed drive thru lane capacity is sufficient to accommodate the expected level of demand.

4.5.2 Updated TRACK analysis is presented in Appendix 12.3 which illustrates a vehicle circulating the drive thru lane.

4.6 Headlight Glare

4.6.1 As shown on the site layout in Appendix 11.1, there is dense planting which is being retained around the perimeter of the site, to prevent headlight glare from within the site extending onto Plas Coch Road.

4.6.2 In addition to this an 1100m close boarded fence is also identified on the site layout around the outer edge of the drive thru lane.

4.6.3 A survey of vehicles undertaken by ADL in 2018, measured the height of the top edge of vehicle headlight glass on a selection of cars. This is set out in Table 4D.

Table 4D Car Headlight Heights

Make	Model	Type	Nº of Doors	Car Year	Height of top of Headlight glass (cm)
Citroen	DS3	Family hatch	3	2015	84cm
Ford	Fiesta	Compact hatch	5	2015	86cm
Ford	Focus	Family hatch	5	2012	79cm
Jeep	Renegade	4x4	5	2016	97cm
Seat	Leon	Family hatch	5	2012	78cm
Vauxhall	Astra	Family hatch	5	2007	75cm
Volkswagen	Polo	Compact hatch	3	2012	74cm
Average					82cm

4.6.4 As noted above, all of these vehicles would have their headlights obstructed by the proposed fence and planting.

5.0 McDONALD'S TRAFFIC

5.1 Comparable Stores from TA

5.1.1 As detailed in ADL's December 2019 TA, ADL Traffic & Highways Engineering commissioned Axiom Traffic Ltd to undertake counts and customer interview surveys at three McDonald's restaurants with drive thru facilities located close to foodstores. These restaurants are considered to be the best comparable restaurants for the following reasons:

- The restaurants are similarly located in edge of town areas close to large foodstores:
- The restaurants have a slightly higher level of AADT compared to the proposal;
- The restaurants have a similar level of market share.

5.1.2 Details of the surveyed restaurants are recapped in Tables 5A and 5B below.

Table 5A Surveyed Restaurants

Name	Address	Foodstore and Proximity
Darlington	Yarm Road, DL1 4PJ	Within Morrisons foodstore car park
Plymouth	Pomphlett Road, Plymouth, PL9 7BH	Within Morrisons foodstore car park
Bradford	Bradford Road, BD10 8EG	Within Morrisons foodstore car park

Table 5B Proposed McDonald's

Restaurant and Store №	Darlington № 614	Bradford № 820	Plymouth № 896	Average Surveyed	Plas Coch (Proposed)
Restaurant Type	Single Storey	Single Storey	Single Storey	Single Storey	Single Storey
Floor Area	322sqm	352sqm	318sqm	356sqm	440sqm
№ of Seats	91	87	82	87	100
Parking Provision	21	38	29	26	31
Drive Thru Facilities	Side By Side	Side By Side	Single	Side By Side	Side By Side
Population within 5 Km	80,960	242,630	154,305	159,298	88,414
AADT	20,935	22,928	31,436	25,099	17,339
Number of Surrounding McD Restaurants Within 5km (incl. store)	2	7	4	4	2
Located Near to Major Foodstore	Morrisons	Morrisons	Morrisons	Morrisons	Sainsburys
Population per McDonalds Restaurant	40,480	34,661	38,576	39,824	44,207

5.1.3 The December 2019 TA noted that the proposed restaurant has a slightly higher level of market share (44,207) persons/McDonald's restaurant) compared with the average of the 3 restaurants (39,824) and has a lower AADT (17,339) compared to the average of the 3 restaurants (25,099). Therefore, is it considered that on balance the average of the three restaurants provides a good and robust comparable to the proposal.

5.1.4 The average of the three survey results was used as the proposed traffic generation for Wrexham for the Friday evening and Saturday peak. Transaction data for the restaurants was used to estimate the Friday morning peak traffic.

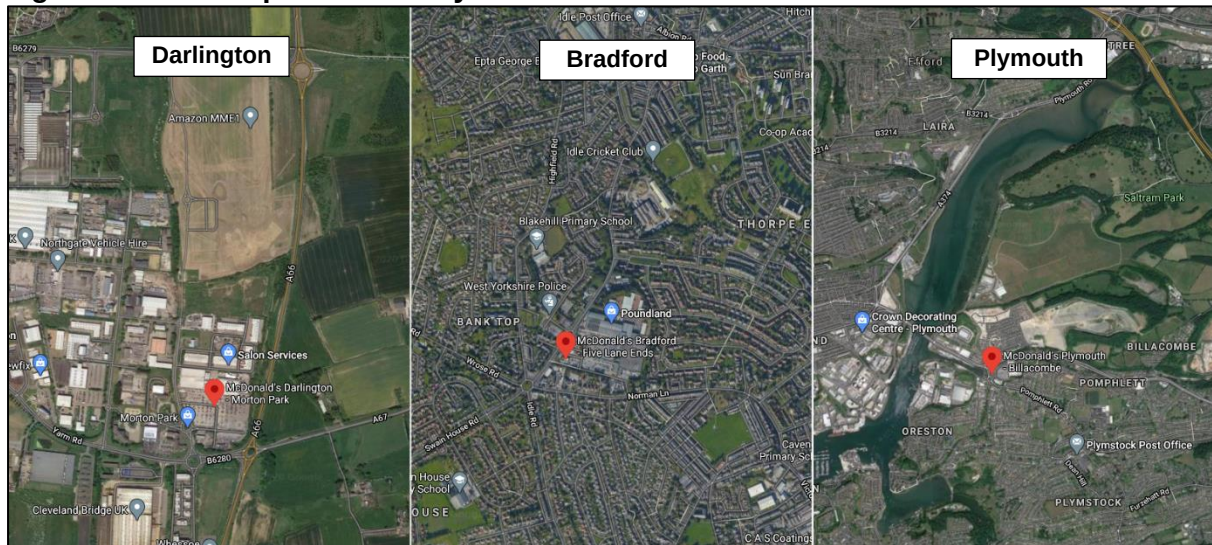
5.1.5 The three stores in Table 5B have been considered further and their individual survey results are set out in Table 5C, replicated from Appendix 9.0 of ADL's December 2019 TA.

Table 5C Comparable Restaurant Survey Data

Day and hour beginning		Darlington		Bradford		Plymouth	
		In	Out	In	Out	In	Out
Friday	16:00-17:00	81	84	134	130	84	71
	17:00-18:00	92	86	155	159	87	93
	18:00-19:00	96	104	112	119	106	106
	Total	269	274	401	408	277	270
Saturday	11:00-12:00	86	75	84	70	69	65
	12:00-13:00	126	122	144	129	110	101
	13:00-14:00	125	127	123	142	108	116
	14:00-15:00	139	134	112	115	98	109
	Total	476	458	463	456	385	391

5.1.6 The location of these restaurants is shown in Figure 5A below and the traffic data has been reviewed in context of their proximity to the Principle A Road Network.

Figure 5A Comparable surveyed restaurants



5.1.7 Of the three surveyed stores, both Darlington and Plymouth are located close to A-roads, leaving or passing the edge of town, whilst Bradford is more centralised in nature, located in a large suburban area, further from major routes. Whilst the Saturday traffic flows at the comparable restaurants are all similar to each other, the Friday PM peak flows show that at the restaurants nearer to A-roads, the number of visitors is lower when compared to the centrally located Bradford restaurant. Given that the two stores near to A-roads have notably lower traffic flows during the Friday PM peak hour, it is reasonable to infer that during the commuting peaks, customers are likely to be local traffic and drivers are only likely to leave the major A-road infrastructure to visit McDonald's if they are already doing so as part of an existing journey.

5.1.8 As a result, it is considered that the traffic generation for the proposal, based on the three comparable stores is entirely acceptable and particularly robust in the Weekday peak hours given that the edge of town restaurants appear to attract fewer visitors at these times. The traffic generation is recapped in Table 5D.

Table 5D Proposed Traffic Generation (Averaged Surveyed)

	Peak Hour	Proposed Traffic	
		In	Out
Friday Peak	08:00-09:00	70	60
	17:00-18:00	111	113
Saturday Peak	13:00-14:00	119	128

5.2 McDonald's Chirk

5.2.1 The existing McDonald's restaurant at Chirk (also referred to as Halton) has been discussed in some detail in all three items of correspondence at Appendix 1.0, with the Council taking the view that this is comparable with the proposals at Plas Coch, whilst ADL have maintained that Chirk is not comparable to Plas Coch. Concern has been expressed by the Highway Authority regarding the amount of parking provided at Chirk (111 spaces), compared to the proposals (29 spaces), as well as observed demand from the Council's own surveys.

5.2.2 ADL's justification is that:

- Chirk is a remote, roadside restaurant with limited surrounding residential population;
- The nearest McDonald's restaurant to Chirk is Wrexham (in store) located 14.6km (9.1 miles) driving distance from Chirk, the nearest McDonald's drive thru to Chirk is Whitchurch located 22.9km (14.2m) away;
- There is negligible potential for walk in trade at Chirk;
- There is no potential for linked trips;
- The Chirk restaurant trades at twice the level of that expected at the proposed Plas Coch restaurant;
- The Chirk restaurant will be impacted on by the permitted Oswestry restaurant and the proposed Plas Coch restaurant as McDonald's are actively trying to reduce the 'busyness of this site'.

5.2.3 Chirk is a restaurant which is currently overtrading, McDonald's have been actively seeking to develop other restaurants along the A483/A5 corridor to relieve the pressure on Chirk. The implementation of Oswestry is expected to reduce trade levels at Chirk by 10%.

5.2.4 McDonald's have advised that the implementation of the McDonald's restaurant at Plas Coch would reduce trade levels at Chirk by 10%.

5.2.5 It is therefore proposed to seek to reduce Chirk trade by 20% through the implementation of competing restaurants.

5.2.6 The proposed 10% reduction in trade at Chirk is equivalent to 20% of the expected traffic generation at Plas Coch (because Chirk is twice as busy as expected at Wrexham. It is expected that some of these will be customers who are coming from Wrexham (sole purpose trips) for the drive thru experience and some could be trips on the A483. As demonstrated in Section 5.1 it is more likely that the proposed restaurant will attract passing traffic on Mold Road going onto/off the A483 to/from Chirk in any event or customers from Wrexham rather than divert trips off the A483. McDonald's own trade predictions are based on traffic flows for Mold Road and not the A483.

5.2.7 The split between sole purpose and existing (passby/diverted trips) is close to 50:50 on a weekday, so if 10% of trips to Plas Coch are sole purpose transfer trips from Chirk to Plas Coch. Then this would significantly reduce the need to travel. The distance (driving) between Plas Coch and Chirk is 13.5km (8.4 miles), so each Wrexham based visitor to Chirk is making a round trip of 27km. Therefore, for each 100 customers at Chirk, there will be 10 of these contributing 270km of travel. This alone forms a sustainability argument in favour of the proposals.

5.2.8 If 10% of trips to Plas Coch are expected to be transfer trips already on the network then this is equivalent to:

- Am Peak 7 trips
- Pm Peak 11 trips
- Saturday Peak 12 trips

5.2.9 Whether these trips are on the A483 and divert or are on Mold Road (on their way to/from the A483) their short diversion will be unlikely to have any material impact and is consistent with the traffic distribution in the December TA.

5.2.10 It is also considered that drivers traveling longer distances on the A483 will not wish to leave the dual carriageway and visit the proposed site at Plas Coch as it is less convenient to access than the restaurant at Chirk. The distance from the beginning of the southbound exit slip road is 0.8km (0.5m) to the roundabout serving the retail park and involves negotiating four roundabout junctions. At Chirk, the distance is 290m (0.2m) from the equivalent location and involves negotiating one additional roundabout. Chirk provides a far more convenient roadside facility and those drivers utilising technology to identify and select a McDonald's restaurant to visit would likely draw the same conclusion. It is therefore the existing McDonald's customers who are local to Wrexham who are expected to transfer to the proposed restaurant.

5.2.11 As discussed in Section 5.1, the evidence from the existing restaurants is similar, that the proximity to the A road has no effect on traffic during the Friday PM peak because customers are simply just trying to get home and avoid diversions.

5.2.12 The benefit of locating the proposed restaurant at Plas Coch is that it will provide a drive thru facility for the residents of Wrexham; it will benefit from being accessible by non car modes and facilitate shared trips with the Retail Park, which reduces the traffic impact of the development on the network.

5.3 McDonald's Traffic for Assessment and Total Traffic

5.3.1 The development traffic for McDonald's was set out in detail in the December TA and the robustness and appropriateness of this data has been outlined and justified in Section 5.1.

5.3.2 As a result, it is considered that the traffic generation data put forward in the previous December TA remains appropriate and realistic to the Plas Coch proposals. The McDonald's total trips are replicated in Appendix 13.0.

5.3.3 The total traffic flows are included in Appendix 14.0 and comprise of:

- 2021 (2021 Base + Non-Resi Committed + McDonald's)
- 2036 (2021 Base + All Committed Dev + McDonald's)
- 2036 Sensitivity Test (2036 TEMPRO Base + McDonald's)

6.0 TRAFFIC IMPACT ASSESSMENT

6.1 ARCADY: Retail Park Roundabout

6.1.1 The Council have suggested that the roundabouts should be “visually assessed”, however all assessed junctions both within the December 2019 TA (ref. Tables 7B and 7C) and this Volume 2 TA included queue surveys which were subsequently used to validate the modelling process. The queue surveys were recorded as videos and subsequently counted and recorded by enumerators, thus providing a visual assessment of the conditions at all junctions.

6.1.2 ADL have assessed the traffic impact at the Retail Park Roundabout using the computer programme Junctions 9 (ARCADY) for the 2019 validation scenario, as well as the base plus committed and total traffic situations for 2021 and 2036. The Friday morning, evening and Saturday peak periods have been assessed. A plan showing the roundabout geometry is included as Appendix 15.1 and the output results are included as Appendix 15.2. The validation analysis comprised of the average observed queues and queue outputs is set out in Table 6A.

Table 6A ARCADY Queue Validation: Retail Park Roundabout

		Friday AM peak		Friday PM peak		Saturday Peak	
		Obs.	Mod.	Obs.	Mod.	Obs.	Mod.
East arm (access road)	Lane 1	0	1	1	1	1	1
	Lane 2	0		0		0	
South arm (site)	Lane 1	0	0	0	0	1	1
West arm (Sainsbury's)	Lane 1	1	1	1	2	2	3
North arm (Retail park)	Lane 1	0	0	0	1	0	2
	Lane 2	0		0		0	

Obs. Observed average queue
Mod. Modelled queue in ARCADY

6.1.3 As shown, the modelled queues validate well with the observed queues. The results of the 2021 and 2036 analysis are set out in Table 6B.

Table 6B ARCADY Analysis: Retail Park Roundabout

Arm	Friday AM Peak				Friday PM Peak				Saturday Peak			
	2021 Base+Com		2021 Total		2021 Base+Com		2021 Total		2021 Base+Com		2021 Total	
	RFC	Q	RFC	Q	RFC	Q	RFC	Q	RFC	Q	RFC	Q
East arm (access road)	0.45	1	0.47	1	0.48	1	0.53	1	0.60	2	0.65	2
South arm (site)	0.15	0	0.26	0	0.30	0	0.48	1	0.57	1	0.82	4
West arm (Sainsbury's)	0.38	1	0.40	1	0.60	2	0.63	2	0.79	4	0.86	5
North arm (Retail park)	0.27	0	0.27	0	0.50	1	0.53	1	0.68	2	0.74	3
Arm	Friday AM Peak				Friday PM Peak				Saturday Peak			
	2036 Base+Com		2036 Total		2036 Base+Com		2036 Total		2036 Base+Com		2036 Total	
	RFC	Q	RFC	Q	RFC	Q	RFC	Q	RFC	Q	RFC	Q
East arm (access road)	0.45	1	0.47	1	0.48	1	0.53	1	0.60	2	0.65	2
South arm (site)	0.15	0	0.26	0	0.30	0	0.48	1	0.57	1	0.82	4
West arm (Sainsbury's)	0.38	1	0.40	1	0.60	2	0.63	2	0.79	4	0.86	5
North arm (Retail park)	0.27	0	0.27	0	0.50	1	0.53	1	0.68	2	0.74	3

RFC = Ratio of Flow to Capacity

Q = Max Queue in Vehicles

6.1.4 Table 6B demonstrates that the maximum RFC at the Retail Park Roundabout during the 2021 total traffic situation would be 0.86 during the Saturday peak on the Sainsbury's arm with a queue of 5 vehicles. This is an increase of 2 vehicles. During the 2036 total traffic situation the maximum RFC would be 0.86 during the Saturday peak on the Sainsbury's arm with a queue of 5 vehicles. This is an increase of 2 vehicles. The analysis demonstrates that the proposed traffic would have no material impact on the operation of the Retail Park Roundabout.

6.2 ARCADY: Plas Coch Road Roundabout

6.2.1 The traffic impact at the Plas Coch Road Roundabout has also been assessed using the computer programme Junctions 9 (ARCADY) for the 2019 validation scenario, as well as the base plus committed and total traffic situations for 2021 and 2036. The Friday morning, evening and Saturday peak periods have been assessed. A plan showing the roundabout geometry is included as Appendix 16.1 and the output results are included as Appendix 16.2. The validation analysis comprised of the average observed queues and queue outputs is set out in Table 6C.

Table 6C ARCADY Queue Validation: Plas Coch Road Roundabout

		Friday AM peak		Friday PM peak		Saturday Peak	
		Obs.	Mod.	Obs.	Mod.	Obs.	Mod.
University Access	Lane 1	0	0	1	1	0	0
Plas Coch Rd South West	Lane 1	0	2	1	2	1	4
	Lane 2	0		0		0	
Retail Park	Lane 1	0	0	0	1	0	1
	Lane 2	0		0		0	
Plas Coch Rd North East	Lane 1	0	1	1	1	2	1
	Lane 2	0		1		2	

6.2.2 As shown, the modelled queues validate well with the observed queues. The results of the 2021 and 2036 analysis are set out in Table 6D.

Table 6D ARCADY Analysis: Plas Coch Road Roundabout

Arm	Friday AM Peak				Friday PM Peak				Saturday Peak			
	2021 Base+Com		2021 Total		2021 Base+Com		2021 Total		2021 Base+Com		2021 Total	
	RFC	Q	RFC	Q	RFC	Q	RFC	Q	RFC	Q	RFC	Q
University Access	0.05	0	0.05	0	0.44	1	0.53	1	0.17	0	0.26	0
Plas Coch Rd South West	0.68	2	0.71	2	0.69	2	0.73	3	0.82	4	0.87	6
Retail Park	0.29	0	0.32	1	0.49	1	0.53	1	0.59	2	0.64	2
Plas Coch Rd North East	0.36	1	0.37	1	0.53	1	0.57	1	0.56	1	0.61	2
Arm	Friday AM Peak				Friday PM Peak				Saturday Peak			
	2036 Base+Com		2036 Total		2036 Base+Com		2036 Total		2036 Base+Com		2036 Total	
	RFC	Q	RFC	Q	RFC	Q	RFC	Q	RFC	Q	RFC	Q
University Access	0.47	1	0.50	1	0.75	3	0.91	6	0.70	2	1.04	8
Plas Coch Rd South West	0.73	3	0.76	3	0.80	3	0.85	5	0.90	8	0.95	14
Retail Park	0.31	0	0.33	1	0.53	1	0.57	1	0.62	2	0.67	2
Plas Coch Rd North East	0.39	1	0.41	1	0.63	2	0.68	2	0.62	2	0.68	2

RFC = Ratio of Flow to Capacity

Q = Max Queue in Vehicles

6.2.3 Table 6D demonstrates that during the 2021 scenarios, the maximum RFC would be 0.87 on Plas Coch Road West on Saturday with a queue of 6 vehicles, an increase of 2 vehicles. The proposed traffic would therefore have no material impact on the operation of the junction during the Friday PM peak.

6.2.4 During the 2036 Saturday peak the maximum RFC would be 0.95 on Plas Coch Road West with a queue of 14 vehicles an increase of 6 vehicles. The junction would be approaching capacity during the Saturday 2036 situation. However, it should be considered that the impact of the proposal, relative to the Base + Committed development scenario is still relatively low.

6.3 LINSIG: Berse Road Roundabout

6.3.1 ADL have assessed the traffic impact at the signalised Berse Road Roundabout using the computer programme LINSIG for the 2020 surveyed year, as well as base plus committed and total traffic situations for 2021 and 2036. The Friday morning, evening and Saturday peak periods have been assessed. A plan showing the roundabout geometry is included as Appendix 17.1 and the output results are included as Appendix 17.2. The results of the 2020 modelling and queue validation are summarised in Tables 6E-6G.

**Table 6E LINSIG validation:
Berse Road Roundabout 2020: Friday AM peak 08:00 – 09:00 Hours**

Approach	Mold Road (NW)			Mold Road (SE)			B5101 (NE)			B5101 (SW)			
Lane №	1	2	3	1	2	3	1	2	3	1	2	3	4
Average Q	4	5	7	2	3	1	1	5	3	0	2	6	1
Q Cleared	58/58	57/58	58/58	56/56	55/56	56/56	58/58	58/58	58/58	-	-	-	-
Modelled	4	10	12	2	1	2	1	7	7	0	1	1	1

**Table 6F LINSIG validation:
Berse Road Roundabout 2020: Friday PM peak 16:00 – 17:00 Hours**

Approach	Mold Road (NW)			Mold Road (SE)			B5101 (NE)			B5101 (SW)			
Lane №	1	2	3	1	2	3	1	2	3	1	2	3	4
Average Q	6	4	4	6	8	2	2	7	4	1	9	4	1
Q Cleared	58/58	58/58	58/58	51/58	48/58	58/58	59/59	59/59	59/59	-	-	-	-
Modelled	5	11	13	5	1	6	1	12	13	1	3	2	1

**Table 6G LINSIG validation:
Berse Road Roundabout 2020: Saturday peak 12:00 – 13:00 Hours**

Approach	Mold Road (NW)			Mold Road (SE)			B5101 (NE)			B5101 (SW)			
Lane №	1	2	3	1	2	3	1	2	3	1	2	3	4
Average Q	5	3	3	3	4	3	2	5	3	1	2	4	1
Q Cleared	64/64	64/64	64/64	64/64	64/64	64/64	64/64	64/64	64/64	-	-	-	-
Modelled	5	8	11	4	1	5	2	8	10	1	0	0	1

6.3.2 Overall, the modelled queues are a good match for the observed queues. Tables 6H and 6I set out the results of the 2021 and 2036 assessments.

Table 6H LINSIG Analysis: Berse Road Roundabout 2021

Time period & Approach		Lane	2021 Base + Committed		2021 Total		Increase in Queues
			DoS	Queue	DoS	Queue	
Friday AM Peak Hour	Plas Coch Road	Lane 1 + 2	85.0%	7	87.6%	8	+1
		Lane 3	81.5%	7	83.7%	7	+1
	Mold Road (SE)	Lane 1 + 2	46.6%	3	46.3%	3	0
		Lane 3	36.6%	2	40.6%	3	+1
	Berse Road	Lane 1 + 2	23.1%	1	23.2%	1	0
		Lane 3 + 4	35.2%	1	36.1%	1	0
	Mold Road (NW)	Lane 1 + 2	88.8%	15	88.9%	15	0
		Lane 3	79.4%	14	79.4%	14	0
Friday PM Peak Hour	Plas Coch Road	Lane 1 + 2	93.6%	15	95.5%	17	+2
		Lane 3	92.3%	15	94.5%	16	+1
	Mold Road (SE)	Lane 1 + 2	73.5%	6	74.4%	7	+1
		Lane 3	58.2%	6	59.5%	6	0
	Berse Road	Lane 1 + 2	51.0%	4	52.1%	4	0
		Lane 3 + 4	40.8%	3	46.0%	3	0
	Mold Road (NW)	Lane 1 + 2	92.7%	17	92.6%	17	0
		Lane 3	89.8%	15	89.6%	15	0
Saturday Peak Hour	Plas Coch Road	Lane 1 + 2	88.9%	12	88.4%	12	0
		Lane 3	86.1%	12	85.0%	12	0
	Mold Road (SE)	Lane 1 + 2	56.4%	4	58.2%	4	0
		Lane 3	52.6%	5	58.1%	6	+1
	Berse Road	Lane 1 + 2	25.6%	1	26.4%	1	0
		Lane 3 + 4	41.0%	3	42.7%	3	0
	Mold Road (NW)	Lane 1 + 2	86.9%	13	89.5%	14	+1
		Lane 3	80.4%	11	85.0%	13	+2

DoS = Degree of Saturation

Queue = Mean Max Queue in PCU

6.3.3 Table 6H demonstrates that the Berse Road Roundabout is approaching capacity in the 2021 situation. During the Friday PM peak the maximum degree of saturation would be 92.6% on Mold Road with a queue of 17 vehicles (in lane 1 and 2). However, the impact of the restaurant would be minimal in all peak periods with only a slight increase in queues of 1 or 2 vehicles on any link.

Table 6I LINSIG Analysis: Berse Road Roundabout 2036

Time period & Approach		Lane	2036 Base + Committed		2036 Total		Increase in Queues
			DoS	Queue	DoS	Queue	
Friday AM Peak Hour	Plas Coch Road	Lane 1 + 2	91.9%	10	93.7%	11	+1
		Lane 3	90.2%	10	92.6%	11	+1
	Mold Road (SE)	Lane 1 + 2	47.4%	3	45.6%	3	0
		Lane 3	39.8%	3	40.7%	3	0
	Berse Road	Lane 1 + 2	25.0%	1	25.4%	1	0
		Lane 3 + 4	35.5 %	3	36.3%	3	0
	Mold Road (NW)	Lane 1 + 2	95.1%	22	95.2%	22	0
		Lane 3	91.1%	19	91.3%	19	0
Friday PM Peak Hour	Plas Coch Road	Lane 1 + 2	99.3%	22	99.3%	22	0
		Lane 3	98.2%	20	98.2%	20	0
	Mold Road (SE)	Lane 1 + 2	75.7%	7	75.7%	7	0
		Lane 3	61.3%	6	61.3%	6	0
	Berse Road	Lane 1 + 2	55.6%	4	55.6%	4	0
		Lane 3 + 4	41.2%	3	41.8%	3	0
	Mold Road (NW)	Lane 1 + 2	102.1%	33	102.4%	34	+1
		Lane 3	101.6%	31	100.6%	31	0
Saturday Peak Hour	Plas Coch Road	Lane 1 + 2	91.9%	14	94.6%	17	+3
		Lane 3	89.4%	13	92.5%	15	+2
	Mold Road (SE)	Lane 1 + 2	58.7%	5	59.5%	5	0
		Lane 3	59.3%	6	62.3%	6	0
	Berse Road	Lane 1 + 2	27.6%	1	28.7%	1	0
		Lane 3 + 4	43.2%	3	42.5%	3	0
	Mold Road (NW)	Lane 1 + 2	95.0%	18	95.0%	18	0
		Lane 3	93.2%	17	93.3%	17	0

DoS = Degree of Saturation

Queue = Mean Max Queue in PCUs

6.3.4 Table 6I demonstrates that the Berse Road Roundabout would be at or approaching capacity during the 2036 peak hour situations with a maximum degree of saturation of 102.4% on Mold Road during the Friday PM peak with a queue of 34 vehicles (on lanes 1 and 2). Again, the traffic impact of the restaurant would be minimal with a very small increase in queues of 1-3 vehicles on any link compared to the base situation.

6.3.5 In the context of these comments, the minor queue increases would be imperceptible day-to-day to road users in both the 2021 and 2036 scenarios. It is considered that the impact of the proposed McDonald's on the Berse Road Roundabout would be unlikely to even identify as a minor inconvenience to road users in both the 2021 and 2036 scenarios.

2036 Sensitivity Test

6.3.6 ADL's December 2019 TA included a 2036 sensitivity assessment of the Retail Park and Plas Coch Road Roundabouts for the 2036 TEMPRO + McDonald's scenarios. For completeness, the sensitivity test flows at Appendix 10.0 and 14.3 have also been modelled. The results are also provided at Appendix 17.2 and are summarised in Table 6J.

Table 6J LINSIG Analysis: Berse Road Roundabout 2036 Sensitivity Analysis

Time period & Approach		Lane	2036 TEMPRO Base		2036 TEMPRO Total		Increase in Queues
			DoS	Queue	DoS	Queue	
Friday AM Peak Hour	Plas Coch Road	Lane 1 + 2	94.7%	11	97.3%	13	+2
		Lane 3	92.5%	10	94.7%	11	+1
	Mold Road (SE)	Lane 1 + 2	51.3%	3	51.0%	3	0
		Lane 3	39.7%	3	40.0%	3	0
	Berse Road	Lane 1 + 2	28.3%	1	28.7%	1	0
		Lane 3 + 4	39.3%	3	39.3%	3	0
	Mold Road (NW)	Lane 1 + 2	98.2%	30	98.3%	30	0
		Lane 3	95.7%	25	95.8%	25	0
Friday PM Peak Hour	Plas Coch Road	Lane 1 + 2	106.7%	42	108.7%	48	+6
		Lane 3	106.1%	37	108.3%	43	+6
	Mold Road (SE)	Lane 1 + 2	82.9%	8	83.0%	9	+1
		Lane 3	71.6%	8	72.9%	8	0
	Berse Road	Lane 1 + 2	68.5%	5	68.8%	6	+1
		Lane 3 + 4	43.6%	3	48.3%	3	0
	Mold Road (NW)	Lane 1 + 2	105.1%	44	104.9%	44	0
		Lane 3	104.4%	39	104.3%	39	0
Saturday Peak Hour	Plas Coch Road	Lane 1 + 2	99.6%	23	102.6%	31	+8
		Lane 3	99.1%	22	102.0%	27	+5
	Mold Road (SE)	Lane 1 + 2	66.2%	5	68.3%	6	+1
		Lane 3	59.0%	6	64.9%	7	+1
	Berse Road	Lane 1 + 2	35.2%	2	35.1%	2	0
		Lane 3 + 4	43.3%	3	45.5%	3	0
	Mold Road (NW)	Lane 1 + 2	98.7%	25	98.8%	25	0
		Lane 3	97.8%	23	97.9%	23	0

DoS = Degree of Saturation
Queue = Mean Max Queue in PCUs

6.3.7 Table 6H demonstrates that under the 2036 sensitivity analysis the base queues would be slightly worse than the 2036 Base + Committed analysis in Table 6I. However the addition of the restaurant traffic still amounts to a small change in queue lengths. The potential worst case increase in queues would be +12-13 vehicles on Plas Coch Road during the Friday and Saturday peaks. Given the impact of Covid-19 and the shift to online shopping it is considered that a 17% growth at the Retail Park and on Plas Coch Road above the growth from the committed developments is extremely unlikely to occur and this is an absolute worst-case scenario.

6.4 A483 Roundabout

6.4.1 The McDonald's traffic impact at the A483 Roundabout is also illustrated on the flow diagrams in Appendix 13.0. The impact would be as follows at the roundabout:

- Friday AM Peak +3 vehicles
- Friday PM Peak +16 vehicles
- Saturday Peak +34 vehicles

6.4.2 The proposed traffic impact would be less than 1 vehicle per minute at the A483 Roundabout. Again in the context that there are in the region of 3500-4000 vehicles circulating the roundabout in any of the peak hours, this level of additional traffic would be imperceptible and would have no material impact on the operation of the roundabout.

6.4.3 Planning Policy Wales (Edition 10 December 2018) is the current Welsh Government planning policy document, however, refers back to TAN18 (2007) for the thresholds to which Transport Assessments apply. It is noted at Annex D under the thresholds for assessment, that Food and Drink use is not listed as a category. The nearest matches in terms of use class would either be "Food retail" or "Leisure Facilities" and in both cases, the threshold for assessment is 1000sqm GFA. The proposals fall below this threshold.

6.4.4 At Annex E, it identifies the thresholds at which the Welsh Government would consider the impact of a development is material and this is noted to be a 5% increase of traffic using any link of a junction.

- 6.4.5 The Mold Road link between the A483 Junction and the Berse Road Roundabout is the link which traffic to or from the proposed McDonald's would subsequently pass through to the A483 Junction. The impact of the development traffic on this link is set out in Table 6K.

Table 6K Mold Road Link to A483

	2021 Base + committed (2-way flow)	McDonald's new traffic (2-way flow)	% impact
Weekday AM peak	2875	+3	0.1%
Weekday PM peak	3187	+16	0.5%
Saturday peak	2788	+34	1.2%

- 6.4.6 The proposal would not result in a material increase in traffic at the A483 junction and therefore no further impact assessment is required.

6.5 Stansty Road / New Road

- 6.5.1 The McDonald's traffic impact at the Stansty Road / New Road junction is also shown on the flow diagrams at Appendix 13.0 by the traffic leaving the north arm of the Plas Coch Road roundabout. The McDonalds traffic impact at the Stansty Road/New Road junction would also be very low once the trips from Plas Coch Road East are distributed onto the network. This is shown in Table 6L below. The Focus TA reports that this junction would only be approaching capacity during the 2030 situation (and this includes an allowance for TEMPLRO background growth) and is therefore a worst case. Given the likely significant over estimations of the base traffic conditions noted above it is concluded that the junction very likely to still be within capacity even in 2030 and given the level of small traffic increase no further analysis is required.

Table 6L McDonald's Traffic Impact Stansty / New Road Junction

Link	AM peak	PM peak
Plas Coch Road, east of retail park	10	18
Stansty Road north	5	9
Stansty Road east	5	9
New Road	3	5
Rhosddu Road	2	4

- 6.5.2 These flows amount to less than one vehicle every two minutes on any given turning movement inbound or outbound and it is not considered that this would result in a material impact in the context of the existing traffic on the network and no further analysis of this junction is required.

6.6 Summary

- 6.6.1 It is concluded that the proposal would have no material impact on the operation of the road network in the vicinity of the site.

7.0 STAGE 1 ROAD SAFETY AUDIT AND HIGHWAY IMPROVEMENTS

- 7.1 ADL appointed TMS Consultancy to undertake a Stage 1 Road Safety Audit of the Retail Park Access Roundabout, the Plas Coch Road Roundabout, the Berse Road roundabout and the connecting highway links.
- 7.2 TMS attended site on 23rd October 2020 and a copy of ADL's audit brief, the TMS audit document and ADL's Designer's Response have been supplied in addition to this TA.
- 7.3 The Safety Audit primarily identified a number of possible issues with the existing pedestrian infrastructure in the form of issues with the existing design or construction of the facilities there. The accident data only recorded one pedestrian injury accident within the study area and this did not occur at a designated crossing point.
- 7.4 The Designers Response to the Safety Audit has noted that these recommendations will be accepted. Plans showing the proposed highway improvements are included as Appendices 11.4 and 11.5.
- 7.5 Of note is problem reference 4.1 in the audit:

Summary: Risk of injury to pedestrians

The proposed restaurant will attract customers across Plas Coch Road in the vicinity of the pedestrian entrance. There are no crossing facilities here and the facilities at Plas Coch roundabout are poor. This could result in pedestrians being hit by passing vehicles and injured.

RECOMMENDATION

A pedestrian crossing assessment should be carried out and appropriate crossing facilities provided.

- 7.6 This matter has been addressed via the proposed signalised crossing, shown on the plan in Appendix 11.4.

- 7.7 As noted in Section 3.9, the Welsh Government proposed highways improvements to the A483 Junction 5 and Berse Road roundabout included the addition of a signalised pedestrian crossing link across the Plas Coch Road exit of the Berse Road Roundabout. Should the Welsh Government proposals gain development consent, then the proposed crossing shown at Appendix 11.4 potentially becomes redundant. It is therefore proposed that a Section 106 contribution is made to cover the cost of implementation of the crossing, so that if the Welsh Government scheme does not come forward (or is amended to not include additional signalised crossing facilities on Plas Coch Road), then the crossing proposed by ADL can be provided instead.
- 7.8 If the Welsh Government scheme proceeds to construction phase, rendering the crossing proposed by ADL unnecessary, then the funds could be either; reallocated by the Council for other relevant pedestrian and/or cyclist improvements in the vicinity of the site (if there is a suitable scheme) or returned to McDonald's if not used within 5 years). This mechanism will ensure that a signalised crossing is provided on Plas Coch Road, regardless of the outcome of the Development Consent Order relating to the Welsh Government A483 Junction 5 proposals.
- 7.9 In addition to the proposed crossing, other improvements were recommended in the Safety Audit, primarily relating to the pedestrian crossing points in the vicinity of the Retail Park, Plas Coch Road and Berse Road roundabouts. These improvements vary by location, however, include:
- Addition of tactile paving to existing drop kerb crossings
 - Formation of new tactile paved crossing points
 - Improvement of existing tactile paved crossings
- 7.10 These improvements are shown at Appendix 11.5 and are proposed for implementation regardless of whether the Welsh Government improvements scheme progresses or not.

8.0 ADDITIONAL REPORTS

8.1 Delivery Management Plan

8.1.1 A Delivery Management Plan will be submitted with the planning application.

8.2 Construction Management Plan

8.2.1 A Construction Management Plan has been prepared by Glanvilles and McDonald's and has been updated in line with feedback from the Council. This will be submitted with the planning application.

9.0 REVIEW OF HIGHWAYS OBJECTIONS TO PROPOSED RESTAURANT

9.1 Traffic Impact

9.1.1 This TA Volume 2 has assessed five elements of committed development requested by the Council, as well as provide additional analysis of the Berse Road Roundabout for the 2021 year of opening and 2036 15-year future assessment.

9.1.2 The issues relating to the potential double-counting of committed residential development versus TEMPRO/NTM growth factors have been considered and it is maintained that an assessment utilising both committed development traffic and growth factors when they relate to the same traffic is incorrect. Between ADL's December 2019 TA and this TA Volume 2, both the TEMPRO growth and Committed Development scenarios have been assessed and in both circumstances the assessment results have shown that the impact of the proposal would be immaterial.

9.1.3 The traffic generation for the proposed restaurant has been re-examined and the methodology utilised by ADL based on comparable restaurants located close to large foodstores is rigorous and robust. The Council have continued to refer to the existing McDonald's restaurant at Chirk as comparable in terms of traffic generation and parking demand to the proposed restaurant.

9.1.4 The design and layout of Chirk has been shown to be anomalous and not the design model for car parking or level of operation which McDonald's expect to occur at these new restaurants.

9.1.5 Detailed and logical reasons have been set out in relation to why Chirk is not a comparable McDonald's restaurant to the proposal site at Plas Coch, and in summary:

- Chirk is remote from populous areas (which have no local McDonald's drive thru restaurant), therefore encouraging sole purpose car-borne visits
- Chirk is roadside restaurant with no other development adjacent to it
- There is negligible opportunity for walk-in trade
- There is no potential for linked/shared trips

9.1.6 It has also been demonstrated that McDonald's are actively seeking to reduce the level of demand at Chirk by implementing new restaurants at Wrexham and Oswestry to serve the local populations and reduce travel from these areas to Chirk.

9.1.7 The proposed traffic generation based on ADL's comparable restaurants is robust compared to figures derived from TRICS.

9.1.8 The impact of the proposed restaurant at the Retail Park Roundabout and Plas Coch Roundabout has been assessed and the results demonstrate that there would be no material impact on the operation of these junctions. The Plas Coch Roundabout would be approaching capacity but the impact of the impact of the McDonald's would be only a few additional vehicles queuing on Plas Coch Road West during the peak hours. This is also a worst case assessment.

9.1.9 The McDonald's impact on the wider network would be very low compared to the base traffic flows as follows:

•	AM Peak	A483 Roundabout	+3 vehicles
		Berse Road Roundabout	+64 vehicles
•	PM Peak	A483 Roundabout	+16 vehicles
		Berse Road Roundabout	+96 vehicles

9.1.10 The impact of the proposed restaurant at the Berse Road Roundabout has been modelled and there would be no material impact. The proposed increase in queues would be only 1-3 vehicles on any one arm during the peak hours.

9.1.11 The impact on the A483 Roundabout would be typically less than 1% and well below the 5% threshold for assessment which would normally be required by the Welsh Government.

9.1.12 The basis of this assessment is provided as a worst case based on the existing road network layout. However in the future year scenario it is very likely that the highway improvements proposed by the Welsh Government will be in situ. In addition if the Mold Road development is permitted then it would be entirely reasonable to expect a development of this size and scale to bring forward highway improvements to the A483 and Berse Road Roundabouts.

9.1.13 The Planning Authority position on the University redevelopment was that whilst there may be inconvenience and delay at the Berse Road Roundabout this was not sufficient grounds to withhold planning permission.

9.1.14 There is therefore no reasonable or justifiable basis why the McDonald's application should not be acceptable in terms of traffic impact.

9.2 Insufficient Parking

9.2.1 The parking provision for the restaurant is both compatible with the Wrexham parking standards, as well as providing sufficient parking for the McDonald's in isolation, or when considering the parking demand for the Argos/Iceland/Range retailers as well.

9.2.2 A parking survey has been undertaken of the Retail Park car park and this has demonstrated that the proposed car park (including the parking demand for the McDonald's) could be accommodated with 15% spare capacity which would allow for some variation in 'normal' peak trading conditions. There is therefore sufficient parking proposed for all users.

9.2.3 The parking survey was undertaken on a weekday and a weekend coinciding with the proposed restaurant peak trading periods and the peak shopping/network activity for 'normal' trading conditions. There is no evidence that it is not entirely appropriate or representative.

9.2.4 Wrexham Council standards are maximums and there is no minimum parking requirement.

9.2.5 The internal layout of the proposed building has changed, removing the stairs from the public area as this is solely accommodated at ground floor. Regardless of whether the 24.4sqm of toilets is counted as a valid area of public floor area, the LPG-16 standards are stated as maximums, therefore, the provision remains acceptable.

9.2.6 The level of parking proposed at Wrexham (29 spaces) is consistent with the average provision at other existing drive thru restaurants locally where there is shared parking available.

9.2.7 The Planning Authority position on car parking provision and the application of the maximum standards for the University redevelopment was clear that the standards are not intended to be used as a starting point or minimum requirement.

9.2.8 The accessibility of the proposed restaurant is comparable to the University site. The Planning Authority were also clear that in locations which are accessible by non car modes that a reduced level of car parking is appropriate.

9.2.9 There is therefore not reasonable or justifiable basis why the McDonald's application should not be acceptable in terms of parking provision.

9.3 Highway Safety

9.3.1 The scope of the collision study has been expanded in this Volume 2 TA and covers the Retail Park, Plas Coch Road and Berse Road Roundabouts, as well as the links connecting them.

9.3.2 During a study period of 60 months, no pattern of accidents occurred in the locations examined. The accident rate in the study area has fallen over time. Only one pedestrian accident was recorded in the study area.

9.3.3 It is concluded that the accident analysis does not demonstrate any highway safety issue with the existing network. Notwithstanding this, the Highway Authority have raised concerns regarding pedestrian safety on Plas Coch Road and a requirement for a Safety Audit.

9.3.4 A Stage 1 Road Safety Audit has been undertaken and supplied in addition to this Volume 2 TA. All recommendations within the audit have been accepted including the provision of a new signalised pedestrian crossing on Plas Coch Road. McDonald's would be willing to secure these works, including the proposed crossing on Plas Coch Road, via legal agreement.

- 9.3.5 The Welsh Government are proposing to fund and implement highway improvements to the A483 Roundabout and Berse Road Roundabout which would improve accessibility for pedestrians and cyclists and enhance road safety for all users.
- 9.3.6 The impact analysis of the proposed traffic generation has shown minor increases in traffic queues in the peak hours, and it is not considered that this would have any material impact on the operation of the network and consequently no material impact on highway safety.
- 9.3.7 The Planning Authority position with regard to the University development was that additional traffic to the network would not necessarily result in any adverse impact on operational safety of the Berse Road Roundabout. The modelling provided in this report has come to the same conclusion.
- 9.3.8 A full and rigorous assessment of the highway situation in the vicinity of the site has been provided and appropriate improvements are proposed to address any potential risks which have been identified. As such the proposal would have no impact on highway safety.

9.4 Contrary to Planning Policy

- 9.4.1 A detailed assessment of the proposals the following policy documents was provided in ADL's December 2019 TA:
- Planning Policy Wales (Edition 10 December 2018)
 - Wrexham Unitary Development Plan 1996 – 2011 (Adopted 2005)
 - Wrexham Local Development Plan 2013-2028 (Deposit Plan March 2018)
- 9.4.2 The proposals were demonstrated to have been compliant with the relevant policies in each and there has been no material change to the scheme. The proposed highway improvements and pedestrian crossing on Plas Coch Road would further improve pedestrian accessibility to the site in accordance with the planning policy guidance.

9.4.3 Specifically, this improves the standing of the proposals in relation to the Welsh Government's sustainable transport hierarchy for planning, which places walking and cycling as highest priority, and notes that provision for active travel must be an "essential component" of development schemes.

9.4.4 Both the adopted Wrexham UDP and Deposit LDP refer to the provision of walking and cycling routes to facilitate journeys by sustainable modes over those by private car.

9.4.5 Therefore, the addition of the proposed pedestrian crossing on Plas Coch Road, which is the only material change to the scheme in terms of policy assessment is a positive improvement and there are considered to be no policy reasons to justify refusal of planning permission on transport policy grounds.

9.5 Inconsistent Approach to Planning Applications by Wrexham Council

9.5.1 There are some pertinent matters relating to the coffee shop application as outlined subsequently. It is noted that despite being the same use class as McDonald's closely located to the A483; offering the sale of hot and cold drinks, as well as hot and cold snacks via a drive thru lane, it was not considered by the Highway Authority to attract traffic from the A483, despite this brand being very popular and prevalent at Motorway, trunk road and local service areas.

9.5.2 No issue was raised by the Council about drivers on the A483 which may utilise technology to locate and visit the proposed coffee shop. This criticism was levelled at the proposed McDonald's in Memorandum 2, and highlights an inconsistent assessment of drive thru operators, at the same retail park, adjacent to the same road network.

9.5.3 Traffic generation for Costa, based on a mix of development including McDonald's, KFC and Burger King were utilised. It is therefore not unreasonable to suggest that these trip rates could also be applied to the proposed McDonald's, as set out in Table 9A.

Table 9A Fast-Food Drive Thru TRICS Data

	TRICS drive thru restaurants		440sqm Drive Thru Restaurant traffic generation		December TA assessment based on comparable retail park restaurants	
	In	Out	In	Out	In	Out
Am Peak	12.6	12.0	55	53	70	70
Pm Peak	14.3	15.0	63	66	111	113
Saturday Peak	25.7	27.0	113	119	119	128

9.5.4 As shown, had the restaurant been assessed using the standardised data in TRICS, as set out in precedent by the Costa application, then the resulting traffic generation would be lower for the proposed McDonald's. As a result, the selection of comparison sites and resulting traffic generation for McDonald's as set out in the December TA remains correct and robust.

9.5.5 The coffee shop also relied upon building over existing car parking bays within the retail park and their application included parking survey data recorded on Saturday 13th January 2018. This was noted in the supporting report that undertaking a survey on this day was *"expected to reflect typical trading patterns"*. In their consultation response of July 2018, the council noted in relation to the timing of the January surveys:

"... as a compromise, I would recommend that an additional parking accumulation survey is carried out in in the next couple of weeks on both a Saturday and Sunday throughout the day."

9.5.6 The additional surveys undertaken to support the Costa application were undertaken on Saturday 28th and Sunday 29th July 2018. A review of the Wrexham academic calendar shows that the school summer term in Wrexham ended on Friday 20th July 2018.

9.5.7 These survey results were subsequently accepted by Wrexham Council.

9.5.8 The surveys of the car park undertaken by ADL were done on Friday 17th and Saturday 18th May 2019:

- During a neutral month
- On a weekend not adjoining a bank or school holiday

- 9.5.9 In Memorandum 2, the Council set out their view that the parking assessments in The December TA, should have been undertaken at peak shopping times, either in December or during Easter Holidays, entirely contrary to TAG Unit M1.2.
- 9.5.10 This approach clearly shows further inconsistency in the approach taken by the Council in assessing drive thru operators at the Plas Coch Retail Park. It is ADL's experience that Highway Authorities will not accept survey data recorded in school holidays as these are not "*neutral representative months*" (TAG Unit M1.2, para 3.3.6). Nonetheless, the surveys to support the Costa application were accepted, despite being recorded in a non-neutral months. On the contrary, ADL's May parking surveys were not only undertaken in a DfT neutral month, but also as shown in The December TA, returned acceptable results.
- 9.5.11 Given the similarities in between the proposed McDonald's and the permitted Costa, the inconsistencies in the Council's approach to their planning applications is set out in Table 9B overleaf.

Table 9B Comparison of Costa and McDonald's Applications

Item	Costa	McDonald's	HA Inconsistency
Use class	A3 Food & Drink.	A3 Food & Drink.	Council focused on the operator, despite both being within the same use class.
Parking Surveys	Undertaken Saturday 13th January 2018 and subsequently on Saturday 28 th & Sunday 29 th July 2018 during school summer holidays.	Undertaken Friday 17 th & Saturday 18 th May 2019 in recognised neutral month, in accordance with WebTAG.	Council requested surveys for McDonald's during holiday period, contrary to DfT guidance.
Traffic Generation	TRICS accepted.	TRCIS not accepted. McDonald's comparable store data provided, justified, and demonstrated to be robust.	TRICS drive thru data (Including McDonald's) accepted for Costa, but not for McDonald's.
Hours of assessment	Weekday AM peak Weekday PM peak Saturday lunchtime peak	Friday AM peak Friday PM peak Saturday lunchtime peak	Monday / Tuesday data (recorded July, term-time) accepted for weekday coffee shop assessments; January data accepted for Saturday coffee shop assessment.
Years of assessment	2023	2021 year of opening 2036 15-year assessment	No future year assessment required for coffee shop.
Capacity analysis	Plas Coch Road Roundabout	Retail Park Roundabout Plas Coch Road Roundabout Berse Road Roundabout	Inconsistent requirements between same use class
Other junctions	None	A483 Junction 5 Stansty Road / New Road	Inconsistent requirements between same use class. Potential for coffee shop customers to make trips from the A483 not acknowledged by the Council, despite Costa being a popular roadside operator.
Road Safety	No collision data provided or requested. No Safety Audit provided or requested. No mitigation for potential pedestrian trips requested.	60-month collision study undertaken covering 3 junctions. Stage 1 Road Safety Audit provided covering Retail Park, Plas Coch Road and Berse Road roundabouts. Mitigation for pedestrian trips requested.	Despite the potential for pedestrians to visit a coffee shop located in the centre of a car park, within a retail park, no Safety Audit was required, nor was accident data requested.
Servicing	No delivery or refuse vehicle TRACKing provided or requested. DMP secured by condition	Detailed information and TRACKing provided in respect of servicing. DMP requested as part of application.	Inconsistent approach between applications. A DMP can be conditioned and is not needed to determine an application with three deliveries per week.

9.5.12 As shown in Table 9B, the difference in approach by the council for two developments, within the same use class, at the same Retail Park, is considerable. Despite this inequity, all assessments and requests of McDonald's have been undertaken and fully addressed.

9.5.13 With regard to the University redevelopment proposals to the east of the proposal site, the Planning Authority judgement regarding car parking was that in accessible locations parking below the standards is not only acceptable but should be encouraged to promote sustainable travel.

9.5.14 This approach is inconsistent with that applied to the McDonald's proposals, where an objection was made on the basis that parking was being provided below the published standards.

9.5.15 Continuing in relation to the University redevelopment, the Planning Authority judgement regarding traffic impact was that although the Berse Road Roundabout would be at or approaching capacity the proposal of additional traffic was not justifiable grounds for refusal.

9.5.16 This approach is inconsistent to that applied to the McDonald's proposals where in Memorandum 2, ADL's satisfactorily validated ARCADY assessments were criticized, based upon anecdotal opinion of the queuing occurring at these junctions.

9.6 Summary

9.6.1 This Volume 2 TA has been prepared in response to Wrexham Council's objections, as set out in Memorandum 2 of 27th February 2020.

9.6.2 As outlined in this chapter, all objections raised have been thoroughly assessed and addressed.

- 9.6.3 Furthermore, the inconsistencies in the approach taken by Wrexham Council Highways Officers in relation to the application by McDonald's Restaurants Ltd, compared to that in relation to the other drive thru development on the same retail park, are stark. Whilst Council concerns may have arisen about the number of visitors to the existing restaurant at Chirk, considerable evidence and analysis has been provided to demonstrate why this is not a comparable store.
- 9.6.4 The technical findings of this report should be more than sufficient to overcome the Highway Authority's objections.

10.0 SUMMARY AND CONCLUSIONS

10.1 Summary

10.1.1 ADL Traffic and Highways Engineering Ltd have been appointed by McDonald's Restaurants Ltd to prepare this Transport Assessment (TA) in support of the planning application for the redevelopment of land at Plas Coch Retail Park, Wrexham, to provide a McDonald's Restaurant with drive thru facility.

10.1.2 Planning application ref. P/2019/0919 was submitted to the Council on 12 December 2019 for the proposed restaurant. This report has been prepared in response to and to address highway and transportation matters which have been raised by Wrexham Highway Authority through the consultation on the planning application.

10.1.3 Additional traffic and queue data has been provided for the Berse Road Roundabout. Although queuing was recorded at the roundabout it is noted that the queue on the signal approaches clears on the vast majority of cycles.

10.1.4 Accident data has also been provided for Plas Coach Road and the Berse Road Roundabout. This demonstrates that there is no apparent highway safety issue in the vicinity of the site. Notwithstanding this, at the request of the Highway Authority, a Stage 1 Road Safety Audit of Plas Coch road and the area surrounding the site has been provided.

10.1.5 There are four existing McDonald's Restaurants and two permitted restaurants surrounding Wrexham. The level of parking provided at these restaurants is typically similar to that proposed at Wrexham. McDonald's Chirk has been identified as clearly anomalous in its layout and operation. Chirk is currently situated between two populated areas (Wrexham and Oswestry) neither of which have a McDonald's drive thru to serve their local population. As a consequence, Chirk is overtrading.

10.1.6 An assessment of the committed developments as requested by the Highway Authority has been provided.

10.1.7 The Council have not accepted an assessment using the local TEMPRO factors, despite these being derived to reflect development traffic within a specific area, therefore the alternative option is to assess the committed development traffic generation directly, *in lieu* of applying TEMPRO factors. This is to avoid double counting the traffic growth on the local network by adding the committed developments (using their own application documents) and by adding the same traffic again via TEMPRO. Given the COVID-19 pandemic and subsequent severe recession, it is considered that these predicted levels of background growth are unlikely to occur.

10.1.8 The following baseline assessments have been undertaken:

- 2021: McDonald's opening year, including Costa and public house committed development;
- 2036: McDonald's 15-year assessment, including all committed developments, to allow for fully built-out schemes, but no TEMPRO growth.

10.1.9 In addition, a 2036 sensitivity test has been provided based on TEMPRO growth which effectively allows for all committed development and background growth as a worst case situation.

10.1.10 The traffic assessments are based on the existing road network layout. It has been noted that the Welsh Government have funding for and are progressing improvement schemes at the A483 Roundabout and Berse Road Roundabout which would benefit existing users and McDonald's customers.

10.1.11 The internal layout of the building has been reconfigured since the December TA and now all public-facing elements are at ground floor level. This results in simpler circulation for visitors and all vertical circulation is now excluded from any public floor area.

10.1.12 The proposal would have 29 spaces. This accords with the Council's maximum parking standards. Parking surveys have also demonstrated that the proposed parking demand could be accommodated.

10.1.13 A Delivery Management Plan will be submitted with the planning application.

10.1.14 Appropriate measures are proposed to mitigate headlight glare onto the highway.

10.1.15 Further evidence has been provided on the comparable restaurants and why these form a reasonable and robust basis for the assessment of the proposed store. The Highway Authority have maintained that the proposal would be similar in operation and parking requirement to Chirk. This is simply not the case. McDonald's have recognised that Chirk is an unusual case of a restaurant overtrading and they are actively seeking to reduce the demand through the implementation of local restaurants at Oswestry and Wrexham to reduce the need to travel to Chirk.

10.1.16 The likelihood of diverting trips off the A483 has been reviewed. It is considered that during the peak hours this is unlikely to be the case as motorists on longer routes simply want to get on with their journey rather than detour to McDonald's. It is considered this will also be the case at Wrexham. The existing trips on the network to the proposed restaurant are far more likely to be existing vehicles on Mold Road going to/from Wrexham town centre during the peak periods who make a relatively short diversion to McDonald's as they go past.

10.1.17 The impact of the proposed McDonald's traffic has then been compared to the baseline situations.

10.1.18 Traffic modelling has been provided for the Retail Park Roundabout, Plas Coch Road Roundabout and Berse Road Roundabout. The modelling has been validated against queue surveys. The results demonstrate that although the Plas Coch Roundabout and Berse Road Roundabout are approaching capacity (in the 2036 scenario) the impact of the McDonald's traffic is only slight increase in queues.

10.1.19 The Berse Road Roundabout is approaching capacity but the impact of the restaurant would be typically only 1-3 vehicles on any link. In the context of these comments, the minor queue increases would be imperceptible day-to-day to road users in both the 2021 and 2036 scenarios. It is considered that the impact of the proposed McDonald's on the Berse Road Roundabout would be unlikely to even identify as a minor inconvenience to road users in both the 2021 and 2036 scenarios.

10.1.20 The 2036 sensitivity test of the Berse Road Roundabout shows a slightly increased level of queues on Plas Coch Road but given the impact of the Covid-19 pandemic it is considered that 17% background growth at the Retail Park is highly unlikely.

10.1.21 The impact at the A483 Roundabout would be typically less than 1% which is well below the Welsh Government 5% threshold for assessment.

10.1.22 The proposal would have no material impact on the Stansty Road/New Road junction.

10.1.23 At the request of the Highway Authority a Stage 1 Road Safety Audit has been undertaken to assess pedestrian safety in the vicinity of the site. All issues which have been identified have been addressed. It is proposed that the highway improvements (including a new signalised pedestrian crossing on Plas Coch Road) would be provided via a S106 Agreement. This would enable flexibility should the Welsh Government proposals come forward which also include a signalised crossing on Plas Coch Road (at the Berse Road Roundabout).

10.2 Conclusions

10.2.1 The highways objections raised relating to traffic impact have been reviewed and it is concluded that this has been fully addressed and the proposal would have no material impact. The impact on the A483 Roundabout would be typically less than 1% and well below the 5% threshold for assessment which would normally be required by the Welsh Government. The basis of this assessment is provided as a worst case based on the existing road network layout. However, in the future year scenario it is very likely that the highway improvements proposed by the Welsh Government will be in situ. In addition, if the Mold Road development is permitted then it would be entirely reasonable to expect a development of this size and scale to bring forward highway improvements to the A483 and Berse Road Roundabouts.

- 10.2.2 The level of parking proposed and the Council's parking standards have been assessed and is sufficient to serve the development and Retail Park. The Planning Authority position on car parking provision and the application of the maximum standards for the University redevelopment was clear, that the standards are not intended to be used as a starting point or minimum requirement. The accessibility of the proposed restaurant is comparable to the University site. The Planning Authority were also clear that in locations which are accessible by non-car modes that a reduced level of car parking is appropriate. There is therefore not reasonable or justifiable basis why the McDonald's application should not be acceptable in terms of parking provision.
- 10.2.3 A full and rigorous assessment of the highway situation in the vicinity of the site has been provided and appropriate improvements are proposed to address any potential risks which have been identified. As such the proposal would have no impact on highway safety.
- 10.2.4 The proposal accords with the National and local planning policy.
- 10.2.5 ADL have identified a significant level of inconsistency in the approach of Wrexham Highway Authority to this McDonald's application compared to that for a drive thru restaurant of the same use class on the same Retail Park. The substantial amount of technical work which has been prepared to support the McDonald's application far outweighs that which would clearly normally be expected for this scale of development.
- 10.2.6 The impacts of the proposed restaurant and the concerns of the Highway Authority have been fully addressed. The technical findings of this report should be more than sufficient to address the concerns of the Highway Authority.
- 10.2.7 It is concluded that there is no reasonable or justifiable transportation basis for the refusal of this planning application.